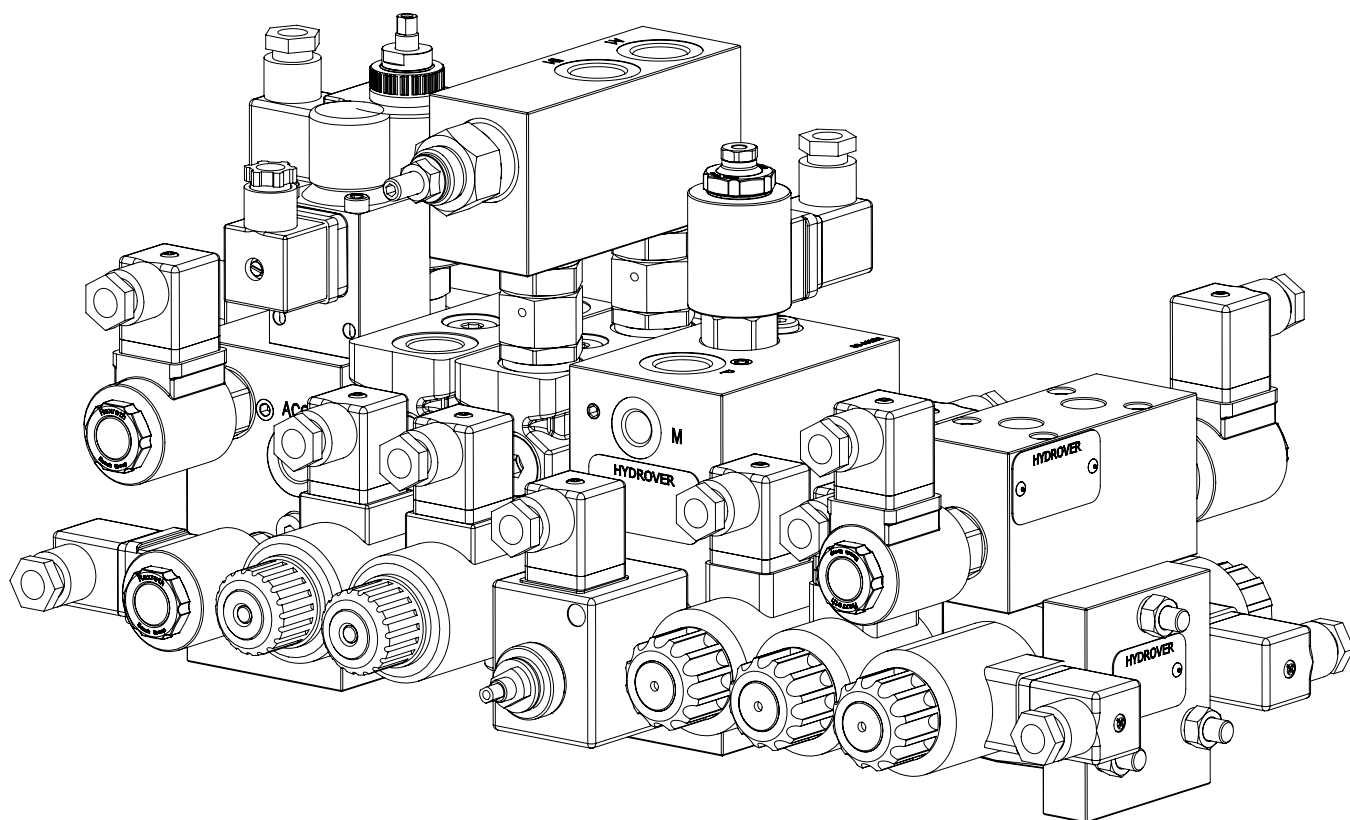


HYDROVER

HYDRAULIC INTEGRATED CIRCUITS



Catalogue

January 2025 edition

ABOUT US

Our company designs, produces and sales Hydraulic components. We are a Bosch Rexroth Oil Control distributor.

Business starts in 1982 by the purchase of representations for Piedmont area of some companies concerning hydraulic sector (already Oil Control and Salami). This activity supports the development of a close technical relationship with the main enterprises of the construction machinery field, mobile equipment and industrial machines using hydraulic systems.

Hydrover's turns directly to the market and puts at the disposal of our guests a developed experience and the flexibility typical of a little business. These skills allow us during the time to tie commercial and technical relationship with many business located in our territory and also abroad.

Hydrover, your Hydraulic Partner.

HYDROVER S.r.L.

Via Torrette, 45 - 12010 BERNEZZO (CN) Italy

Tel. +39 0171/857366 - Fax +39 0171/857659

European VAT IT02449930045

Cuneo CCIAA Rea n. 176832

Company capital € 10.000,00

email: info@hydrover.it - Web: www.hydrover.it

SALES, DELIVERY AND WARRANTY TERMS

SALES AND DELIVERY TERMS

Hydrover distributes its valves through its sales network in compliance with the delivery terms (contract) shown in the specific documents (offers, order, confirmations, invoices), and those conditions shall be applicable for all what not specified here.

ORDERS

All orders shall be in written form and shall show the following information:

- date and place where the order is issued;
- full name and address of the purchasing company;
- signature of a legal representative, with indication of his/her qualification;
- reference of the suppliers offer (when applicable);
- complete ordering code and eventual description of the valves ordered;
- number of pieces;
- delivery time requested (eventual)
- carrier (eventual)

The order will be considered valid at the Hydrover delivery terms.

The delivery terms requested or shown, and eventually notified in writing, can be considered essential only in case of specific signed agreement between both parties, supplier and buyer.

WARRANTY

The Hydrover limited warranty lasts for a period of one year starting from the delivery date of the valve. If the buyer deems that one or more products are faulty due to improper manufacturing, he undertakes to notify immediately the presence of these faults to the supplier, by means of detailed written report, so that Hydrover may verify, through an expert of its own trust, whether the complained faults are really present. Once the Hydrover expert has verified that the notified faults are effectively present and that they are due to manufacturing defects, Hydrover undertakes to repair or to replace the valve within an adequate term and the buyer undertakes not to ask for contract cancellation before the adequate term to repair or replace the valve has expired. Written permission for warranty returns must be obtained from Hydrover prior to shipment. All warranty returns shall be shipped freight prepaid and shall include a detailed description of the malfunction and of the working conditions. The warranty does not cover products which have been contaminated, used improperly or tampered without control and approval of Hydrover. Similarly the warranty is not valid if changes are made to the circuits or systems which could negatively affect the valve function. If the valve supplied must be assembled in systems which could cause damages to third parties exceeding by for the price of the valve, the buyer undertakes to adapt all safety measures in order to avoid any damage, since he recognizes that mass production of the valves at market prices entails the risk, even if limited, that occasional faulty valves may result. O-rings are excluded from the warranty.

USER'S INTRUCTIONS

The buyer shall not use the vave for purposes different from what pointed out in the relevant drawings or in the Hydrover catalogues. If the buyer wants to use the valves for other purposes he shall ask specific approval from Hydrover. Specifically, the buyer are not authorised to use Hydrover valves for the following applications:

- any passenger or goods carrying road vehicle or equipment subject to Highway Safety Standards and Directives, such as (without limitation) steering, or brake systems
- aircraft or space vehicles
- ordnance equipment
- medical and health products, including life support equipment or vehicles
- systems to be used under any Nuclear Regulatory Act or Regulation
- systems for use in explosive or otherwise hazardous environments

STATEMENT

The valves and the multifunction integrated blocks described in this catalogue can be employed in systems or machines falling into the specifications of EEC Directive 2006/42/CE (Machine Directive) and later amendments. The valves and the blocks shall not be operated before the complete machine is verified to be in compliance with the requirements of the above mentioned Directive.

JURISDICTION

In case of a dispute where Hydrover is summoned before court, the Court of law in Cuneo (Italy) is exclusively competent.

TECHNICAL DATA**VALVES INSTALLATION**

It is recommended to follow these steps:

- inspect the sub-plate to ensure that it is in good conditions and no external contaminant is present
- check that O-Rings are intact and correctly positioned
- don't tighten screws or connectors more than the maximum torque specified in the catalogue

INLET VOLTAGE

To obtain correct operation and long life of coils it is necessary that the operating voltage fluctuations do not exceed +5% -10 % of nominal voltage.

TEMPERATURE RANGES

- Ambient Temperature from -20°C to +50°C
- Oil Temperature from -20°C to +80°C

SEALS

O-RINGS: Acryl – Nitrile Butadiene Rubber NBR (BUNA-N) standard for temperature between -20°C and +100°C. Fluorocarbo FPM (Viton) and other compounds are available on request.

STOCKING OF NEW VALVES

Encapsulated by a protective wrapping, the valves shall not be exposed to direct sun light nor to source of heat or ozone (like electric motors running) and kept in a dry place at a temperature between -20°C and +50°C.

WORKING DUTY

The working duty ED of a coil is the ratio between energized time t_i and full cycle time t_c where $t_c = t_i + t_r$ and t_r = de-energized time.

$$ED = (t_i / t_c) \cdot 100 \%$$

All coils are rated for ED = 100 % provided that temperature limit of their insulation class is not exceeded.

PROTECTION EN 60529

On request coils with IP65/IP69K protection.

HYDRAULIC FLUID

It must have physical lubricating and chemical properties suitable for use in hydraulic systems such as, for example:

- MINERAL OIL FLUIDS HL (DIN 51524 part1)
- MINERAL OIL FLUIDS HLP (DIN 51524 part2)

For use of environmentally acceptable fluids (vegetable or polyglycol base) please consult LC Oleodinamica.

Viscosity class: with ISO-DIN, the viscosity class is expressed by ISO-VG (no.); the no. Indicates the average kinematic viscosity at 40°C in mm²/s or centiStoks (cSt).

CONTAMINATION – FILTRATION

- **GENERAL INFORMATION:** Manufacturers and users of hydraulic equipment admit that contamination is the most likely cause of malfunction or failure in hydraulic systems and reduces security and reliability of components and systems. Metal particles flowing throughout the circuit scratch moving surfaces so that contamination level, if not controlled, increases very rapidly. It is strongly recommended to maintain contamination level at least at nominal values shown below, choosing adequate filtration products.
- **FILTRATION RATIO BETAX:** It's the ratio between the number of particles before and after the filter with diameter larger than X micron.
- **ABSOLUTE FILTRATION RATIO ISO 4572:** It's the diameter X of the largest particle with $BETAX \geq 75$.
- **CONTAMINATION CLASS ISO 4406:** it's expressed by 3 scale numbers representing respectively: the number of particles equal to or larger than 4 micron (c); the number of particles equal to or larger than 6 micron (c); the number of particles equal to or larger than 14 micron(c), contained in 1 ml of fluid.
- **CONTAMINATION CLASS NAS 1638:** It's expressed by one scale numbers representing the number of particles of different size ranges contained in 100 ml of fluid.

HYDROVER PRODUCT CODIFICATION

Hydrover product		H	
Manifolds		1	
Valves for hydraulic motors	4	14 Series	
Multi ports manifolds	6	16 Series	
Inline valves	7	17 Series	

Hydrover product		H	
Cetop 3 products		3	
Modular Cetop 3 subplates for parallel circuits	1	31 Series	
Load sensing modular Cetop 3 subplates for parallel circuits	2	32 Series	
Cetop 3 valves	5	35 Series	
Cetop 3 subplates	6	36 Series	
Cetop 3 modular valves	9	39 Series	

Hydrover product		H	
Products for Bosch Rexroth ED bankable valves		4	
Plates for Bosch Rexroth ED bankable valves	1	41 Series	
Load sensing plates for Bosch Rexroth ED bankable valves	2	42 Series	
Flangeable elements for Bosch Rexroth EDC bankable valves	8	48 Series	
Flangeable elements for Bosch Rexroth ED bankable valves	9	49 Series	

Hydrover product		H	
Cetop 5 products		5	
Modular Cetop 5 subplates for parallel circuits	1	51 Series	
Load sensing modular Cetop 5 subplates for parallel circuits	2	52 Series	
Cetop 5 subplates	6	56 Series	
Cetop 5 modular valves	9	59 Series	

Hydrover product		H	
Accessories		6	
Electronic controls	1	61 Series	

Hydrover product		H	
Multifunctional integrated circuits		9	
Inline	7	97 Series	

Code	Description	Page
14 SERIES - Valves for hydraulic motors		
H14001	Relief valve single effect for OMH-OMP-OMR motors / 80 lpm	20
H14012	Relief valve double effect for OMH-OMP-OMR motors / 40 lpm	22
H14013	Relief valve double effect for OMH-OMP-OMR motors / 60 lpm	24
H14014	Relief valve double effect for OMH-OMP-OMR motors / 80 lpm	26
H14032	Relief valve double effect for OMS motors / 60 lpm	28
H14002	Poppet type solenoid operated directional valve between V1 and V2 for OMH-OMP-OMR motors / 70 lpm	30
H14010	Bypass and relief for OMH-OMP-OMR motors / 60 lpm	32
H14005	Relief valve double effect for Parker TE motors / 30 lpm	34
H14006	Relief valve double effect for Parker TE motors / 40 lpm	36
H14004	Relief valve double effect for Parker TE motors / 60 lpm	38
16 SERIES - Manifolds		
H1601	Multi ports manifold / 2 ports 1/2" G / 3 ports 3/8" G	42
H1610	Multi ports manifold / 3 ports 1/2" G / 1 ports 3/8" G	44
H1616	Multi ports manifold / 5 ports 1/2" G	46
H1611	Multi ports manifold / 6 ports 1/2" G	48
H1608	Multi ports manifold / 2 ports 3/4" G / 2 ports 1/2" G	50
H1602	Multi ports manifold / 2 ports 3/4" G / 3 ports 1/2" G	52
H1603	Multi ports manifold / 2 ports x 1" G / 3 ports 3/4" G	54
H1609	Multi ports manifold / 2 ports 1" G / 4 ports 3/4" G	56
H1612	Multi ports manifold / 2 ports 1" G / 4 ports 3/4" G	58
H1605	Multi ports manifold double T 3/8" G	60
H1606	Multi ports manifold double T 1/2" G	62
17 SERIES - Inline valves		
<i>Relief</i>		
H17053	Inline relief valve / crossing P 3/8" G / T 3/8" G / 25 lpm	66
H17021	Inline relief valve / crossing P-T 1/2" G / 30 lpm	68
H17018	Inline relief valve / P-T 1/2" G / 70 lpm	70
H17019	Inline relief valve / P-T 3/4" G / 120 lpm	72
H17125	Inline relief valve / crossing P-T 1/4" G / 150 lpm	74
H17089	Inline relief valve / P-T 1" G / 240 lpm	76
H17119	Inline relief valve and anti-cavitation / P-T 1" G / 200 lpm	78
H17107	Inline relief valve / P-T 1"1/4 G / 250 lpm	80
H17063	Inline relief valve double effect crossing V1 V2 ports 1/2" G / 40 lpm	82
H17059	Inline relief valve double effect crossing P-P1 ports and T port 1/2" G / 70 lpm	84
H17129	Inline relief valve electrically enabled / A-B 3/8" G / 20 lpm	86
H17086	Inline relief valve electrically enabled / A-B 3/8" G / 30 lpm	88
<i>Pressure reducing</i>		
H17032	Inline pressure reducing valve with check valve / 3/8" G	90
<i>Sequence</i>		
H17071	Inline sequence valve / 1/4" G / 30 lpm	92
H17158	Inline sequence valve / Opposite 3/8" G / 25 lpm	94
H17056	Inline sequence valve / Opposite 3/4" G / 80 lpm	96

Code	Description	Page
Counterbalance		
H17150	Inline valve single counterbalance in stainless steel / 1/4" G / 25 lpm	98
H17151	Inline valve dual counterbalance in stainless steel / 1/4" G / 25 lpm	100
H17037	Inline valve dual counterbalance / 1/4" G / 25 lpm	102
Regenerative		
H17073	Inline regenerative control valve 3/8" G / 1/2" G	104
H17095	Inline permanent or switchable regenerative control valve 1/2" G	106
H17096	Inline permanent or switchable regenerative control valve 3/8"G - 1/2" G	108
H17009	Inline permanent or switchable regenerative control valve 3/4" G	110
H17075	Inline permanent or switchable regenerative control valve 1" G	112
Quick unloading		
H17024	Quick unloading inline valve	114
Regenerative and quick unloading		
H17062	Regenerative and quick unloading inline valve	116
Unloading for accumulator		
H17062	Unloading inline valve for accumulator	118
Pump bypass		
H17027	Inline pump bypass / 40 lpm	120
H17028	Inline pump bypass / 150 lpm	122
H17160	Inline pump bypass / 200 lpm	124
Poppet type solenoid operated directional valves		
H17110	Inline valve with poppet type solenoid operated directional valve opposite 3/8" G ports / 40 lpm	126
H17111	Inline valve with poppet type solenoid operated directional valve opposite 3/4" G ports / 70 lpm	128
H17113	Inline valve with poppet type solenoid operated directional valve opposite 3/4" G ports / 100 lpm	130
H17112	Inline valve with poppet type solenoid operated directional valve opposite 1" G ports / 150 lpm	132
H17127	Inline valve with poppet type solenoid operated directional valve 3/4" G ports / Through 2 port / 100 lpm	134
H17012	Inline float valve 3/8" G	136
H17013	Inline float valve 1/2" G	138
Fast slow speed		
H17034	2 way fast slow speed inline valve / 30 lpm	140
H17001	3 way compensated fast slow speed inline valve / 30 lpm	142
H17015	3 way compensated fast slow speed inline valve / 60 lpm	144
Bypass and relief		
H17005	Inline valve with bypass and relief / 35 lpm	146
H17006	Inline valve with bypass and relief / 60 lpm	148
H17003	Inline valve with bypass and relief / 120 lpm	150
H17004	Inline valve with bypass and relief / 200 lpm	152
Flow regulation		
H17130	Inline flow restrictor electrically enabled / A-B 3/8" G	154
H17002	Fixed setting flow regulator 3 way compensated inline valve	156
H17045	Flow regulator 3 way compensated inline valve with bypass and relief	158
H17020	Inline valve with proportional 3 way compensated flow regulation and relief	160
Check valves		
H17124	Inline double pilot operated check valve in stainless steel 1/4" G	160

Code	Description	Page
31 SERIES - Modular Cetop 3 subplates for parallel circuits		
<i>Standard</i>		
H31-G1	Mounted group sample H31-G1	166
H31-G2	Mounted group sample H31-G2	167
H3100	Inlet subplate with 1 station / side and back A-B ports / crossing P-T ports	168
H3103	Inlet plate with relief valve / crossing and top P-T ports	170
H3112	Inlet subplate with 1 station and relief valve / side and back P-T-A-B ports	172
H3104	Inlet monoblock subplate from 1 to 4 stations / extensible / relief and bypass valve back A-B ports / crossing P-T ports	174
H3113	Inlet subplate with 1 Cetop 3 station / extensible / relief and bypass valve / 3 way flow regulation fast slow speed / side and back A-B ports / crossing P-T ports	176
H3110	Inlet subplate with 1 Cetop 3 station for 2 or 3 ways flow regulator / 1 Cetop 3 station for directional valve / relief and bypass valves / side and back A-B ports / crossing P-T ports	178
H3105	Intermediate / closing subplate with 1 Cetop 3 station / back A-B ports	180
H3101	Intermediate / closing subplate with 1 Cetop 3 station / back and side A-B ports	182
H3102	Closing subplate with 1 Cetop 3 station / back and side A-B ports / crossing P-T ports	184
<i>High flow rate</i>		
H31-G3	High flow rate mounted group sample H31-G3	186
H31-G4	High flow rate mounted group sample H31-G4	187
H3107	High flow rate inlet subplate with 1 Cetop 3 station / extensible / relief and bypass valve / side and back A-B ports / crossing P-T ports	188
H3106	High flow rate inlet subplate with 1 Cetop 3 station / extensible / relief and bypass valve / 2 or 3 way flow regulation / fast slow speed / side and back A-B ports / crossing P-T ports	190
H3108	High flow rate intermediate subplate with 1 Cetop 3 station / side and back A-B ports	192
H3109	High flow rate closing subplate with 1 Cetop 3 station / side and back A-B ports	194
HK	Assembling kit	196
32 SERIES - Load sensing modular Cetop 3 subplates for parallel circuits		
H32-G1	Mounted group sample H32-G1	198
H32-G2	Mounted group sample H32-G2	199
H3203	Inlet plate for variable displacement pump	200
H3204	Inlet plate 3 way compensated for fixed displacement pump	202
H3219	Inlet plate 3 way compensated with relief valve for fixed displacement pump	204
H3223	Inlet plate 3 way compensated with relief valve for fixed displacement pump	206
H3213	Inlet plate 3 way compensated with bypass valve for fixed displacement pump	208
H3206	Intermediate subplate with 1 Cetop 3 station / side A-B ports	210
H3222	Intermediate subplate 2 way compensated with 1 Cetop 3 station / side A-B ports	212
H3201	Intermediate subplate with 2 way compensated flow regulator fixed flow rate from 1 to 10 lpm and 1 Cetop 3 station / side A-B ports	214
H3205	Intermediate subplate with 2 way compensated flow regulator fixed flow rate from 4 to 16 lpm and 1 Cetop 3 station / side A-B ports	216
H3207	Intermediate subplate with 2 way compensated flow regulator fixed flow rate from 12 to 30 lpm and 1 Cetop 3 station / side A-B ports	218
H3215	Intermediate subplate with flow restrictor on P and 1 Cetop 3 station / side A-B ports	220
H3209	Intermediate subplate with 2 way compensated flow regulator up to 30 lpm and 1 Cetop 3 station side A-B ports	222
H3226	Intermediate subplate with 2 way compensated flow regulator pilot operated check valves on A and B / 1 Cetop 3 station / side A-B ports	222

Code	Description	Page
H3231	Intermediate subplate with 2 way compensated flow regulator / relief valve on P pilot operated check valves on A and B / 1 Cetop 3 station / side A-B ports	224
H3202	Closing plate with T port	226
H3208	Closing plate with T port and relief valve	230
H3214	Closing plate with T port / relief valve / LS IN	232
HK	Assembling kit	234
35 SERIES - Valvole Cetop 3		
H3505	Cetop 3 pressure reducing valve inlet in A outlet to P	236
H3501	3 way compensated Cetop 3 flow regulator / relief valve / inlet in A / regulated outlet on P / discharge in T	238
H3502	Proportional pressure regulator Cetop 3 valve on P / direct acting	240
H3503	Poppet type solenoid operated directional Cetop 3 valve P in A or P in B	242
H3506	Valve with priority flow function / inlet in B / non priority output in A with relief valve	244
36 SERIES - Cetop 3 subplates		
<i>Single station</i>		
H3636	Cetop 3 single station subplate / side P-T-A-B ports 1/4" G	248
H3607	Cetop 3 single station subplate / side P-A-B ports / back T port	250
H3609	Cetop 3 single station subplate / back P-T-A-B ports	252
H3611	Cetop 3 single station subplate / side and back P-T-A-B ports	254
H3602	Cetop 3 single station subplate / relief valve / back and side P-T ports / side A-B ports / 25 lpm	256
H3606	Cetop 3 single station subplate / relief valve / back P-T ports / side A-B ports / 30 lpm	258
H3619	Cetop 3 single station subplate / relief valve / back and side P-T ports / side A-B ports / 30 lpm	260
H3623	Cetop 3 single station subplate / relief valve on A and B / back and side P-T-A-B ports / 25 lpm	262
H3640	Cetop 3 single station subplate / pump unloading / relief valve	264
H3608	Cetop 3 single station subplate for serial circuit / relief valve with separated discharged port / 30 lpm	266
H3641	Cetop 3 single station subplate / relief valve / fixed setting flow regulators on A and/or B	268
<i>Multi station</i>		
H3612	Cetop 3 subplate from 2 to 9 stations / crossing P-T ports 3/8" G / back A-B ports 3/8" G	270
H3601	Cetop 3 subplate from 1 to 7 stations / crossing P-T ports 1/2" G / side A-B ports 3/8" G	272
H3626	Cetop 3 subplate from 2 to 7 stations / bypass and relief valves / crossing P-T ports 1/2" G side A-B ports 3/8" G / 40 lpm	274
H3615	Cetop 3 subplate from 2 to 7 stations / bypass and relief valves / crossing P-T ports 1/2" G side A-B ports 3/8" G / 60 lpm	276
H3104	Inlet monoblock subplate from 1 to 4 stations / extensible / relief and bypass valve back A-B ports / crossing P-T ports	174
H3610	Cetop 3 subplate from 2 to 8 stations / crossing P-T ports 1/2" G / side A-B ports 3/8" G side MA-MB ports 1/4" G	278
H3613	Cetop 3 subplate from 2 to 8 stations / crossing P-T ports 1/2" G / back A-B ports 3/8" G side MA-MB ports 1/4" G	280

Code	Description	Page
Station plates		
H3603	Cetop 3 station blanking plate	282
H3604	Cetop 3 station blanking plate / P in A	284
H3639	Cetop 3 station blanking plate / P in B	286
H3605	Cetop 3 station blanking plate / P in A / B in T	288
H3627	Plate for adding a Cetop 3 station / side A-B ports 3/8" G	290
H3632	Plate for adding 2 Cetop 3 stations / side A-B ports 3/8" G	292
39 SERIES - Cetop 3 modular valves		
Relief		
H3901	Cetop 3 modular relief valve on P / 30 lpm	296
H3946	Cetop 3 modular relief valve on A and B / 20 lpm	298
H3906	Cetop 3 modular relief valve on A / 30 lpm	300
H3905	Cetop 3 modular relief valve on B / 30 lpm	302
H3904	Cetop 3 modular relief valve on A and B / 30 lpm	304
H3918	Cetop 3 modular relief valve on A / 70 lpm	306
H3919	Cetop 3 modular relief valve on B / 70 lpm	308
H3920	Cetop 3 modular relief valve on A and B / 70 lpm	310
H3917	Cetop 3 modular valve with cross relief valves on A e B / 50 lpm	312
H3977	Cetop 3 modular relief valve on P electrically enabled	314
Sequence		
H3911	Cetop 3 modular sequence valve on P	316
Back pressure relief		
H3909	Cetop 3 modular relief valve for back pressure on T	318
Pressure reducing		
H3939	Cetop 3 modular pressure reducing valve on P	320
H3962	Cetop 3 modular pressure reducing valve on A	322
H3963	Cetop 3 modular pressure reducing valve on B	324
H3942	Cetop 3 modular proportional pressure reducing valve on P	326
H3943	Cetop 3 modular proportional pressure reducing valve on B	328
For pressure switch		
H3916	Cetop 3 modular valve for pressure switch on A / B / A and B	330
Counterbalance		
H3921	Cetop 3 modular counterbalance valve on A / 25 lpm	332
H3969	Cetop 3 modular counterbalance valve on B / 25 lpm	334
H3929	Cetop 3 modular counterbalance valve on A and B / 25 lpm	336
H3925	Cetop 3 modular counterbalance valve on A / 45 lpm	338
H3926	Cetop 3 modular counterbalance valve on B / 45 lpm	340
H3924	Cetop 3 modular counterbalance valves on A and B / 45 lpm	342
H3984	Cetop 3 modular counterbalance valves on A and B / 60 lpm	344
Flow regulation		
H3922	Cetop 3 modular valve with unidirectional flow restrictors on A / B / A and B	346

Code	Description	Page
H3956	Cetop 3 modular valve with bidirectional flow restrictor on P	348
H3947	Cetop 3 modular 3 way compensated flow regulator valve on A	350
H3930	Cetop 3 modular 3 way compensated flow regulator valve on B	352
H3907	Cetop 3 modular 3 way compensated flow regulator valve on P	354
H3961	Cetop 3 modular 3 way compensated priority flow regulator valve on B	356
H3912	Cetop 3 modular 3 way compensated proportional flow regulator valve on P	358
H3991	Cetop 3 modular bridge of wheatstone rectifier for 2 way flow regulator	360
Poppet type solenoid operated directional valves		
H3934	Cetop 3 modular poppet type solenoid operated directional valve between P1 and P / 60 lpm	362
H3965	Cetop 3 modular poppet type solenoid operated directional valve between A1 and A / 40 lpm	364
H3966	Cetop 3 modular poppet type solenoid operated directional valve between B1 and B / 40 lpm	366
H3980	Cetop 3 modular poppet type solenoid operated directional valve between A and B / Float	368
H3998	Cetop 3 modular bypass valve on B / 40 lpm	370
H3959	Cetop 3 modular poppet type solenoid operated directional valves between A1 and A / B1 and B / 40 lpm	372
H3972	Cetop 3 modular poppet type solenoid operated directional valves between A1 and A / B1 and B / 60 lpm	374
Bypass and relief		
H3933	Cetop 3 modular bypass and relief valve / 35 lpm	376
Fast slow speed		
H39104	Modular Cetop 3 with 2 way flow regulator on P and fast slow speed	378
H3931	Modular Cetop 3 2 way compensated flow regulator valve on P or T with fast slow speed reversible with seal plate	380
H3960	Modular Cetop 3 flow regulation 2 way compensated on A (in or out) with fast slow speed reversible with seal plate	382
H3932	Modular Cetop 3 flow regulation 2 way compensated on B (in or out) with fast slow speed reversible with seal plate	384
H3927	Modular Cetop 3 3 way compensated flow regulator valve on P with fast slow speed	386
Check valves		
H3910	Cetop 3 modular check valve on T	388
H3928	Cetop 3 modular pilot operated check valves on A e B / pilot ratio 1:7	390
Shuttle		
H39105	Cetop 3 modular shuttle valve between A and B	392
Additional ports		
H3973	Cetop 3 modular manifold with side additional A-B ports 1/4"G	394
H3913	Cetop 3 modular manifold with side additional A-B ports 3/8"G	396
H3987	Cetop 3 modular manifold with side additional P-T ports	398
Without valves		
H3902	Cetop 3 modular manifold with CA-08A-2N cavities on A and B for valves and solenoid valves invertible with seal plate	400
H3968	Cetop 3 modular manifold with CA-10A-2N cavities on A and B / for valves and solenoid valves invertible with seal plate	402
H3908	Cetop 3 modular manifold with CA-08A-2N cavity between P (end cavity) and T (side cavity) for valves invertible with seal plate	404

Code	Description	Page
41 SERIES - Plates for Bosch Rexroth ED bankable valves		
H41-G1	Mounted group sample H41-G1	408
<i>Inlet plates</i>		
H4104	Inlet plate	410
H4103	Inlet plate / relief and bypass valves / 30 lpm	412
H4107	Inlet plate / relief and bypass valves / crossing holes for tie rods / 30 lpm	414
H4112	Inlet plate / check valve on P / relief and bypass valves / crossing holes for tie rods / 30 lpm	416
H4101	Inlet plate / relief and bypass valves / 40 lpm	418
H4124	Inlet plate / relief and bypass valves / crossing holes for tie rods / 40 lpm	420
H4108	Inlet plate / relief and bypass valves / 60 lpm	422
H4106	Inlet plate / double stage relief pressure control / bypass / 30 lpm	424
H4115	Inlet plate / relief and bypass valve / fast slow speed 3 way compensated / 40 lpm	426
H4121	Inlet plate / relief valve / bypass valve / 3 way compensated proportional flow regulator / 60 lpm	428
H4122	Inlet plate / relief valve / bypass valve / 3 way compensated proportional flow regulator / 60 lpm	430
<i>Closing plates</i>		
H4114	Closing plate without ports	432
H4123	Closing plate with T port without OR	434
H4102	Closing plate with T port and OR	436
H4116	Closing plate with P and T port	438
H4105	Closing plate / relief valve / 30 lpm	440
H4117	Closing plate / relief valve / 40 lpm	442
HK	Assembling kit	444
42 SERIES - Load sensing plates for Bosch Rexroth ED bankable valves		
H4201	Intermediate load sensing inlet ED plate / dual side P-T ports 1" G	446
H4207	Intermediate element with pressure reducing valve on P	448
H4206	Intermediate load sensing inlet ED plate 3 way compensated / variable delta P / relief valve bypass valve / P-T ports 3/4" G	450
H4221	Closing plate without ports	452
H4202	Closing plate with LS ports and LS leakage	454
48 SERIES - Flangeable elements for Bosch Rexroth EDC bankable valves		
H4803	EDC flangeable element with counterbalance valve on B / 30 lpm	458
H4801	EDC flangeable element with counterbalance valve on B / 60 lpm	460
H4807	EDC flangeable element with counterbalance valve on A and B / 30 lpm	462
H4802	EDC flangeable element with poppet type solenoid operated directional valves between A and A1 B and B1	464

Code	Description	Page
49 SERIES - Flangeable elements for Bosch Rexroth ED bankable valves		
H4902	ED flangeable valve with relief valve on A or B	468
H4908	ED flangeable element with relief valve on A and B	470
H4901	ED flangeable valve with unidirectional flow restrictors on A / B / A and B	472
H4903	ED flangeable element with cross piloted check valves on A and B	474
H4904	ED flangeable element with poppet type solenoid operated directional valves between A1 and A / B1 and B	476
51 SERIES - Modular Cetop 5 subplates for parallel circuits		
H51-G1	Mounted group sample H51-G1	480
H5101	Inlet subplate with 1 station / extensible / relief and bypass valve / side A-B ports crossing P-T ports	482
H5102	Intermediate / closing subplate with 1 station / side A-B ports	484
52 SERIES - Load sensing modular Cetop 5 subplates for parallel circuits		
H52-G1	Mounted group sample H52-G1	488
H5205	Inlet plate for variable displacement pump	490
H5204	Inlet plate / relief valve / 3 way compensated / for fixed displacement pump	492
H5203	Intermediate subplate / flow restrictor on P / 1 Cetop 5 station / side A-B ports	494
H5213	Intermediate subplate 2 way compensated / 1 Cetop 5 station / side A-B ports	496
H5202	Closing plate / side 3/4" G T port	498
H5209	Closing plate / front 3/4" G T and LS 1/4" G ports	500
H5207	Closing plate / 3/4" G P port / 1" G T port	502
H5208	Closing plate / unloading valve / two 3/4" G T ports	504
HK	Assembling kit	506
56 SERIES - Cetop 5 subplates		
<i>Single station</i>		
H5603	Cetop 5 single station subplate / relief valve / back P-T ports / side A-B ports	508
H5101	Inlet subplate with 1 station / extensible / relief and bypass valve / side A-B ports crossing P-T ports	482
H5609	Cetop 5 single station subplate / r excludable regenerative / relief valve / back P-T ports side A-B ports	510
<i>Multi station</i>		
H5601	Cetop 5 subplate from 1 to 6 stations / 3/4" G crossing P-T ports / 1/2" G side A-B ports	512
H5602	Cetop 5 subplate from 2 to 6 stations / 3/4" G crossing P port / 1" G crossing T port / 3/4" G side A-B ports	514
H5604	Cetop 5 subplate from 1 to 5 stations / bypass and relief valves / crossing P 3/4"G and T 1"G ports side A-B ports	516
<i>Station plates</i>		
H5608	Cetop 5 station blanking plate	518
H5606	Reduction plate from Cetop 5 to Cetop 3	520

Code	Description	Page
59 SERIES - Cetop 5 modular valves		
<i>Relief</i>		
H5913	Cetop 5 modular relief valve on P	524
H5902	Cetop 5 modular relief valve on A	526
H5903	Cetop 5 modular relief valve on B	528
H5901	Cetop 5 modular relief valve on A e B	530
H5921	Cetop 5 modular relief valve on A electrically enabled	532
<i>Pressure reducing</i>		
H5915	Cetop 5 modular pressure reducing valve on P	534
<i>Counterbalance</i>		
H5916	Cetop 5 modular counterbalance valve on A / 50 lpm	536
H5917	Cetop 5 modular counterbalance valve on A / 100 lpm	538
H5907	Cetop 5 modular counterbalance valve on A / 130 lpm	540
H5918	Cetop 5 modular counterbalance valve on B / 50 lpm	542
H5919	Cetop 5 modular counterbalance valve on B / 100 lpm	544
H5906	Cetop 5 modular counterbalance valve on B / 130 lpm	546
H5914	Cetop 5 modular counterbalance valve on A e B / 100 lpm	548
<i>Regenerative</i>		
H5905	Cetop 5 modular valve with permanent or switchable regenerative control	550
<i>Poppet type solenoid operated directional valves</i>		
H5924	Cetop 5 modular poppet type solenoid operated directional valve between P1 and P	552
H5909	Cetop 5 modular poppet type solenoid operated directional valve between A1 and A	554
H5910	Cetop 5 modular poppet type solenoid operated directional valve between B1 e B	556
H5911	Cetop 5 modular poppet type solenoid operated directional valves between A1 and A / B1 and B	558
<i>Bypass and relief</i>		
H5904	Cetop 5 modular relief and bypass valve	560
<i>Flow regulation</i>		
H5908	Cetop 5 modular valve with 3 way compensated flow regulation on P and fast slow speed	562
<i>Additional ports</i>		
H5923	Cetop 5 modular manifold with side additional A-B ports 1/4"G	564
61 SERIES - Electronic controls		
H6101	Single proportional control / octal	568
H6102	Double proportional control / undecal	570

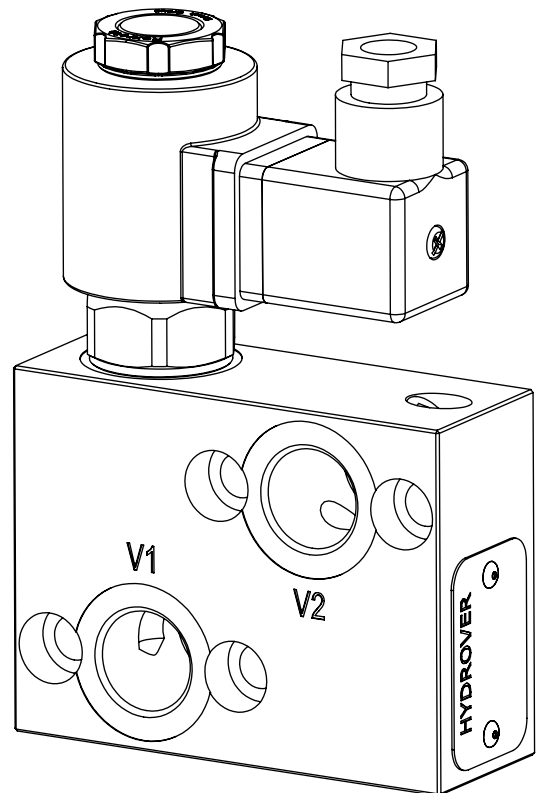
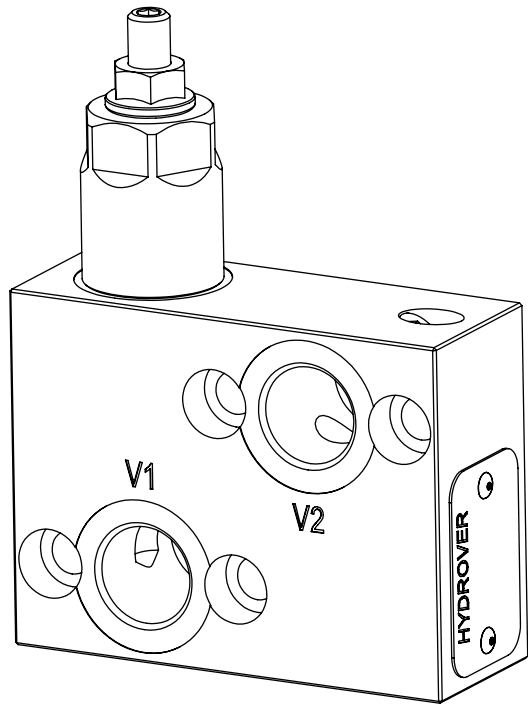
Code	Description	Page
97 SERIES - Multifunctional integrated circuits		
H97001	Integrated circuit with two sequence circuits 3/8"G	576
H97063	Integrated circuit with two sequence circuits 1/2"G	578
H97039	DN10 dual pump unloading subplate	580
H97009	Integrated circuit DN16 for splitting with switchable regenerative control for double pump	582
H97005	Integrated circuit DN25 for splitting with switchable regenerative control for triple pump	586
H97007	Integrated circuit with regenerative control / 40 lpm	588
H97019	Integrated circuit with regenerative control / 80 lpm	590
H97017	Integrated circuit for rotation with calibratable braking pressure / 50 lpm	592
H97049	Integrated circuit for rotation with calibratable braking pressure / 70 lpm	594
H97133	Management block for simultaneous feeds with a variable displacement pump 1/2" G	596
H97101	Management block for simultaneous feeds with a variable displacement pump 3/4" G	604
H97121	Integrated circuit for single acting cylinder with 2 way compensated flow regulator and relief valve 3/8" G	610

Code	Description	Page
Bosch Rexroth components		
0T.U3.01.00-Y-Z	Bosch Rexroth check valve VUB1	614
0T.U6.02.00-99-Z	Bosch Rexroth check valve VUM1.060	616
04.11.49-X-56-Z	Bosch Rexroth relief valve VSBN-08A	618
04.11.18-X-99-Z	Bosch Rexroth relief valve VS-30	620
0T.M1.02-X-99-Z	Bosch Rexroth relief valve VMD 1.025	622
0T.M1.03-X-99-Z	Bosch Rexroth relief valve VMD 1.040	623
0T.M1.04-X-99-Z	Bosch Rexroth relief valve VMD 1.070	624
04.11.05-X-99-Z	Valvola di massima pressione Bosch Rexroth VS-80	625
04.12.08-X-85-Z	Bosch Rexroth relief valve VSPN-10A	627
04.12.04-X-99-Z	Bosch Rexroth relief valve VSP-150	629
VMR2.240.NG.000	Bosch Rexroth relief valve and anti-cavitation VMR2-22-FC	630
04.12.11-X-27-Z	Bosch Rexroth relief valve VSPN-16A	632
04.11.27-X-99-Z	Bosch Rexroth sequence valve VS-30-CC	634
04.75.21-X-56-Z	Priority unloading valve VMSN-08A	636
04.95.04-X-85-Z	Bosch Rexroth reducing valve VRPR-10A	638
04.93.07-X-85-Z	Bosch Rexroth reducing valve VRPX-10A	640
04.52.20-X-56-Z	Bosch Rexroth counterbalance valve VBSN-08AA	642
04.52.31-X-85-Z	Bosch Rexroth counterbalance valve VBSN-10A	644
04.52.28-X-57-Z	Bosch Rexroth counterbalance valve VBSN-12A	646
04.52.04-X-99-Z	Bosch Rexroth counterbalance valve VBSO-SEC-30	648
04.52.11.91.99.35.000	Valvola di bilanciamento Bosch Rexroth VBSO-SEC-33	649
OD.21.01-X-56	Bosch Rexroth bidirectional flow restrictor ST-C-06	650
OD.21.01-X-04	Bosch Rexroth bidirectional flow restrictor ST-C-09	652
OD.21.01-X-36	Bosch Rexroth bidirectional flow restrictor ST-C-10	653
GSU1	Bosch Rexroth unidirectional flow restrictor GSU1	655
04.01.03-X-56.00	Bosch Rexroth unidirectional flow restrictor ST-VU-08A	657
0T.F1.01.00-Y-Z	Bosch Rexroth 2 way compensated flow regulator SFC1	659
04.02.02-X-85-Z	Bosch Rexroth 2 way compensated flow regulator VRFB-10A	661
04.04.02.40.85.40	Bosch Rexroth 3 way compensated flow regulator VRFD-10A-M-40	663
04.84.09.00.85-Z-00	Bosch Rexroth logic element VRLA-10A-S	665
OD.15-X-18-Y-Z	Bosch Rexroth solenoid valve normally closed OD.15-X-18-Y-Z	667
OD.15-X-18-Y-Z-00	Bosch Rexroth solenoid valve normally open OD.15-X-18-Y-Z-00	671
OD.15-X-17-Y-Z	Bosch Rexroth solenoid valve normally closed OD.15-X-17-Y-Z	675
OD.15-X-17-Y-Z-00	Bosch Rexroth solenoid valve normally open OD.15-X-17-Y-Z-00	679
OD.15-X-36-Y-Z	Bosch Rexroth solenoid valve normally closed OD.15-X-36-Y-Z	683
OD.15-X-36-Y-Z-00	Bosch Rexroth solenoid valve normally open OD.15-X-36-Y-Z-00	687
OD.15-X-21-Y-Z	Bosch Rexroth solenoid valve normally closed OD.15-X-21-Y-Z	691
OD.15-X-21-Y-Z-00	Bosch Rexroth solenoid valve normally open OD.15-X-21-Y-Z-00	695
OD.15-X-89-Y-Z-00	Bosch Rexroth solenoid valve normally open OD.15-X-89-Y-Z-00	699
OD.92-X-77-Y-Z	Bosch Rexroth flow regulator proportional solenoid valve VEP-5A-2Q-09	703
OD.95.06.89.72.00	Bosch Rexroth flow regulator proportional solenoid valve VEPN-12A	707

Code	Description	Page
OD.94.01.18-Y-Z	Bosch Rexroth pressure relief proportional solenoid valve VEP-5B-2S-D	711
OD.91.06.77-Y-00	Bosch Rexroth pressure reducing proportional valve VEP-5A-2R-06-P	715
OD.02.36-X-Y-Z	Bosch Rexroth coil D36 for on-off solenoid valves	719
OD.02.21.X-Y-Z	Bosch Rexroth coil R7 for proportional solenoid valves	721
OD.02.09.01.30-Z-01	Bosch Rexroth coil S5 for proportional solenoid valves	722

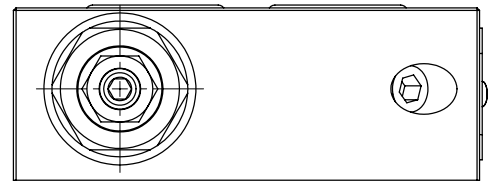
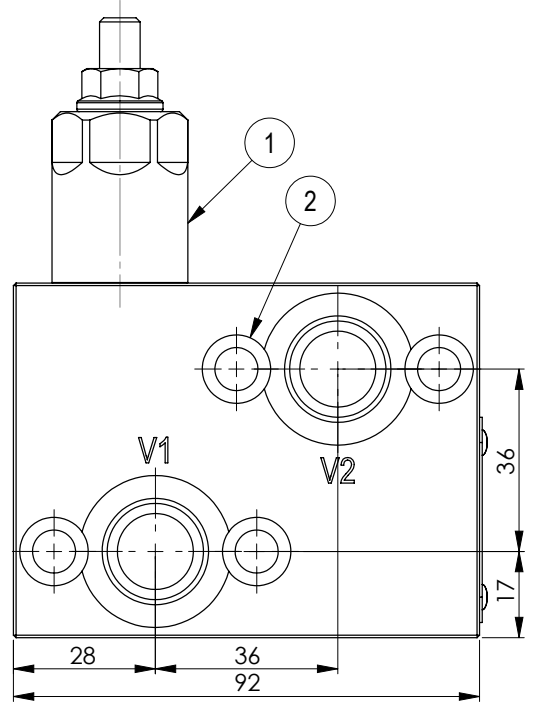
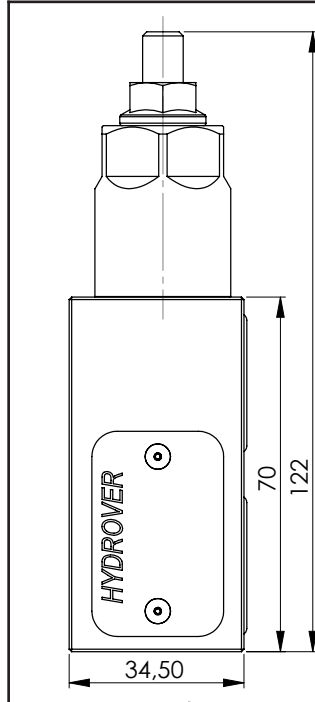
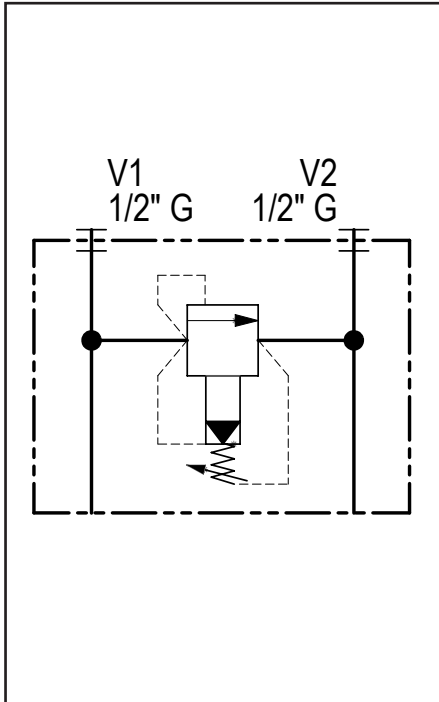
14 SERIES

Valves for hydraulic motors

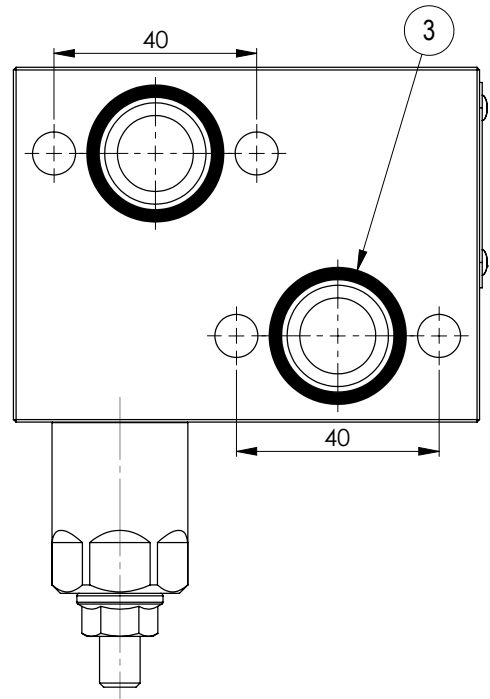
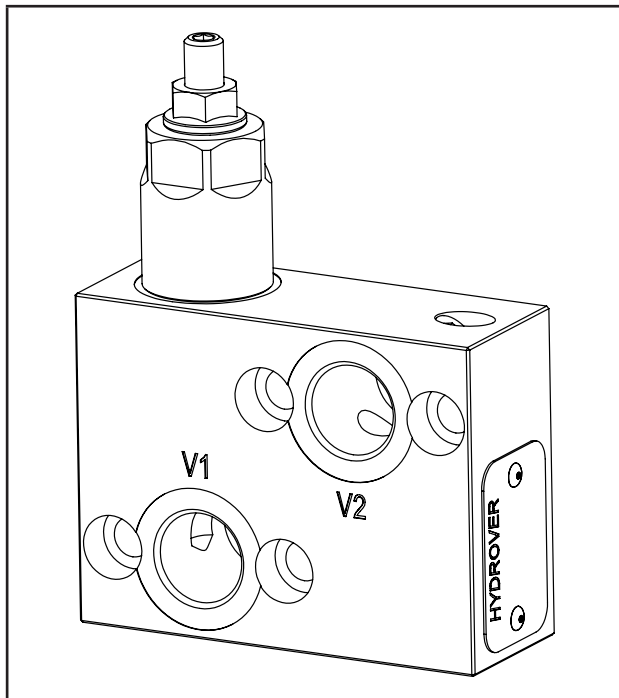


Relief valve single effect for OMH-OMP-OMR motors / 80 lpm **H14001**

Dimensions in mm



Technical data	
Max. pressure	250 bar
Max. flow	80 lpm *
Weight	0,7 Kg
Manifold material	Aluminium
V1 / V2 ports	1/2" G



N°	Description	Q.ty
1	Bosch Rexroth relief valve VSPN-10A depicted with screw adjustment *	1
2	Ø 8,5 through hole for mounting with counterbore	4
3	OR 130 i. Ø 22,22 cross section 2,62	2

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue

Ordering code

H	1	4	0	0	1	A	-	_	_
---	---	---	---	---	---	---	---	---	---

Hydrover product

Product series

14 series - Valves for hydraulic motors

Product ID

Manifold material

Aluminium

Relief valve adjustment pressure range *

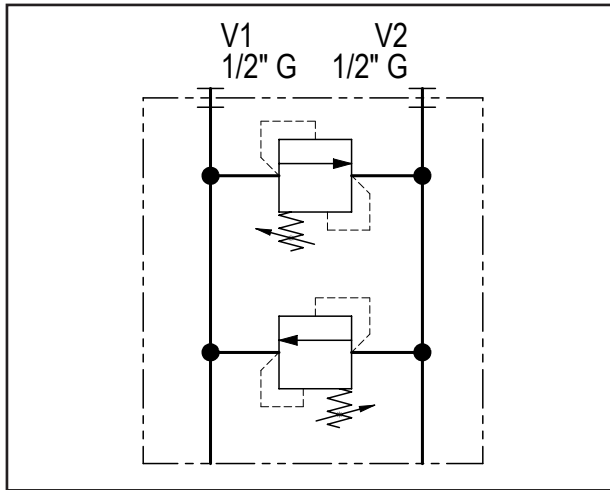
- 1 = 35-140 bar
- 2 = 70-280 bar
- 3 = 140-420 bar
- 3 = 35-350 bar (adj. knob)

Relief valve adjustment type *

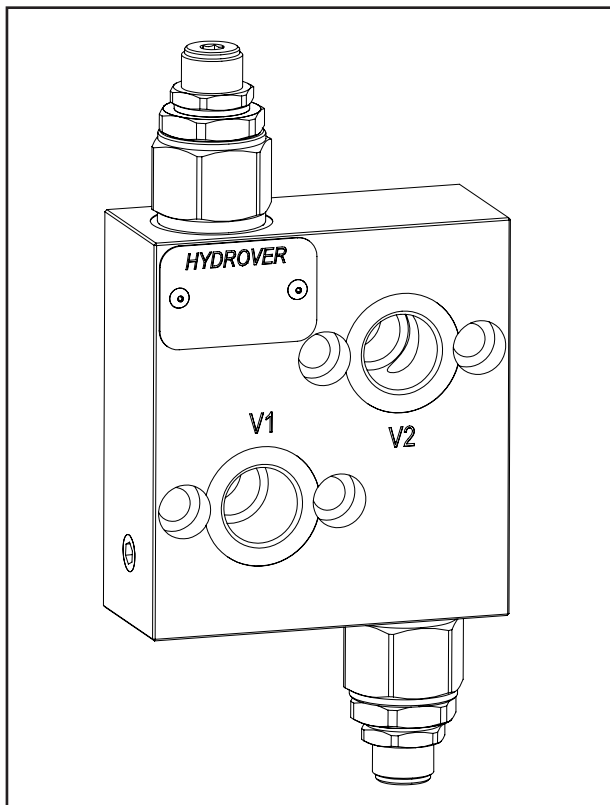
- S = Screw
- K = Knob

* Omit if not required. To order the product without the pressure relief cartridge valve, omit the pressure range and the adjustment type options: H14001A.
The manifold will still be provided with the corresponding cavity.

Relief valve double effect for OMH-OMP-OMR motors / 40 lpm **H14012**

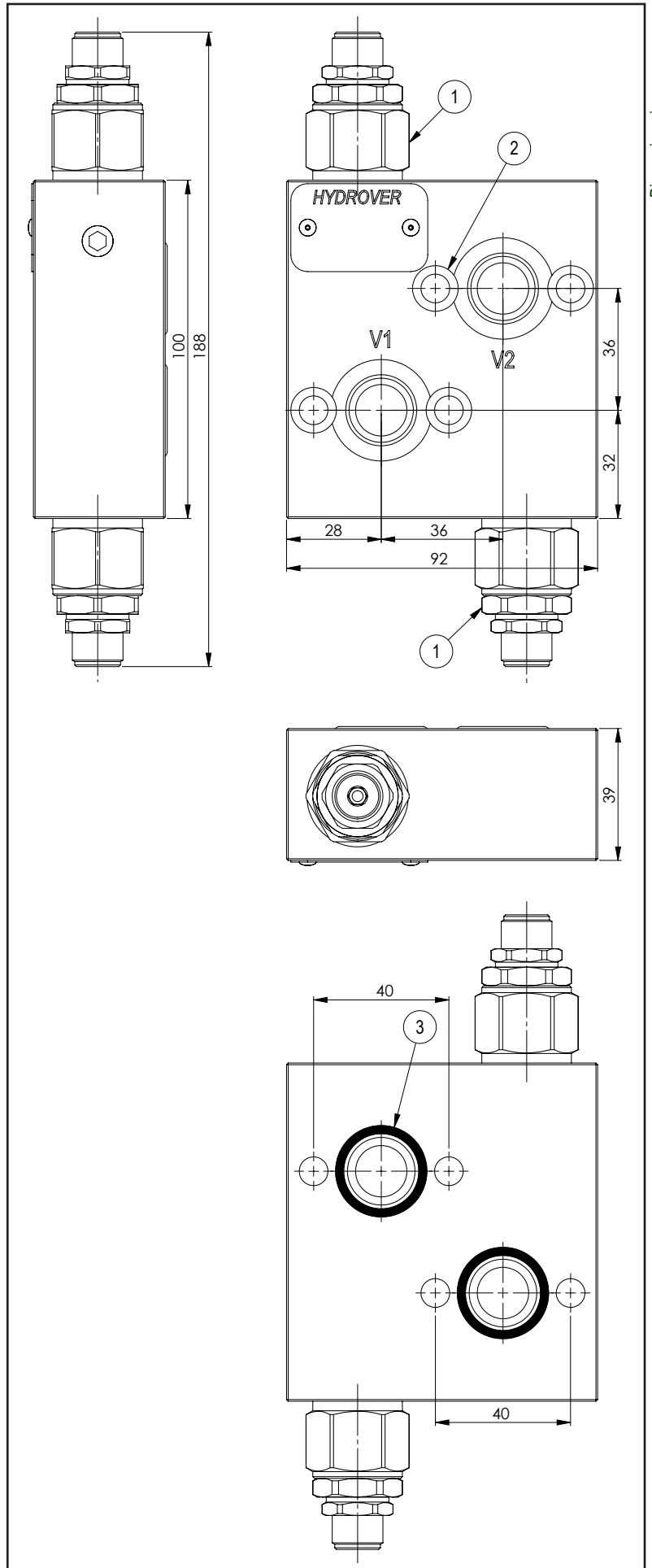


Technical data	
Max. pressure	250 bar
Max. flow	40 lpm *
Weight	1,2 Kg
Manifold material	Aluminium
V1 / V2 ports	1/2" G



N°	Description	Q.ty
1	Bosch Rexroth relief valve VMD1.040 *	2
2	Ø 8,5 through hole for mounting with counterbore	4
3	OR 130 i. Ø 22,22 cross section 2,62	2

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue



Dimensions in mm

Ordering code

H	1	4	0	1	2	A	-	-	-	-	-
---	---	---	---	---	---	---	---	---	---	---	---

Hydrover product

Product series

14 series - Valves for hydraulic motors

Product ID

Manifold material

Aluminium

Relief valve adjustment type on V1 *

Screw

= S

Relief valve adjustment pressure range on V1 *

25-120 bar

= 1

40-200 bar

= 2

200-350 bar

= 3

Relief valve adjustment pressure range on V2 *

1= 25-120 bar

2= 40-200 bar

3= 200-350 bar

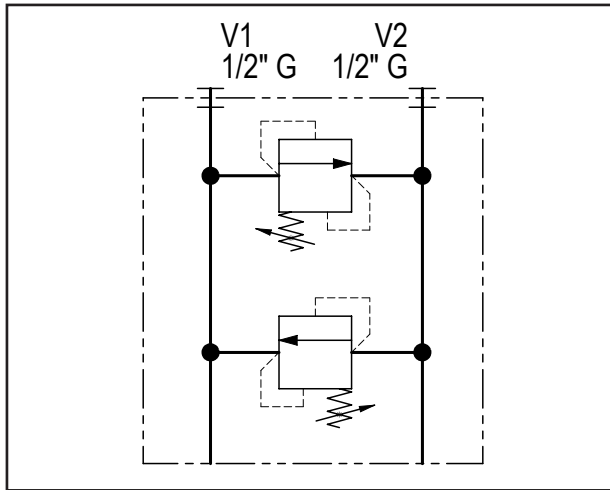
Relief valve adjustment type on V2 *

S = Screw

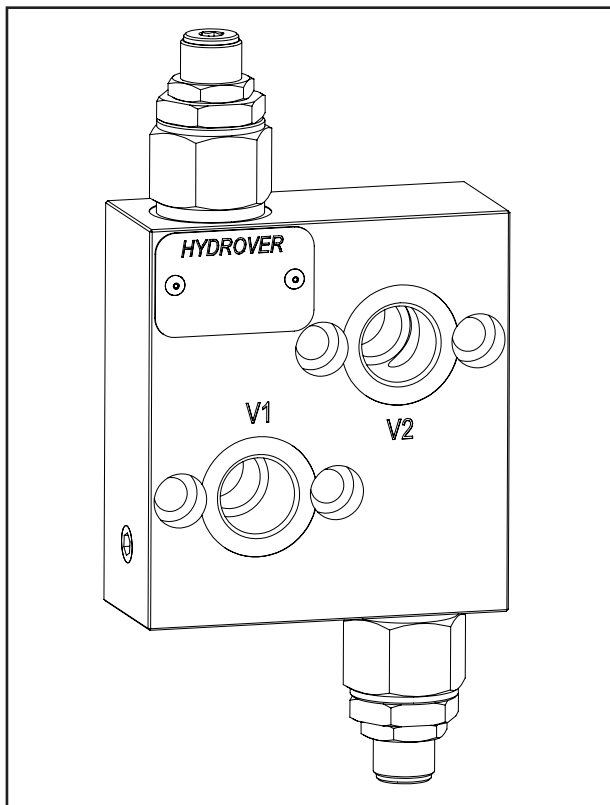
* Omit if not required. To order the product without the pressure relief cartridge valves, omit the pressure range and the adjustment type options: H14012A.

The manifold will still be provided with the corresponding cavities.

Relief valve double effect for OMH-OMP-OMR motors / 60 lpm **H14013**

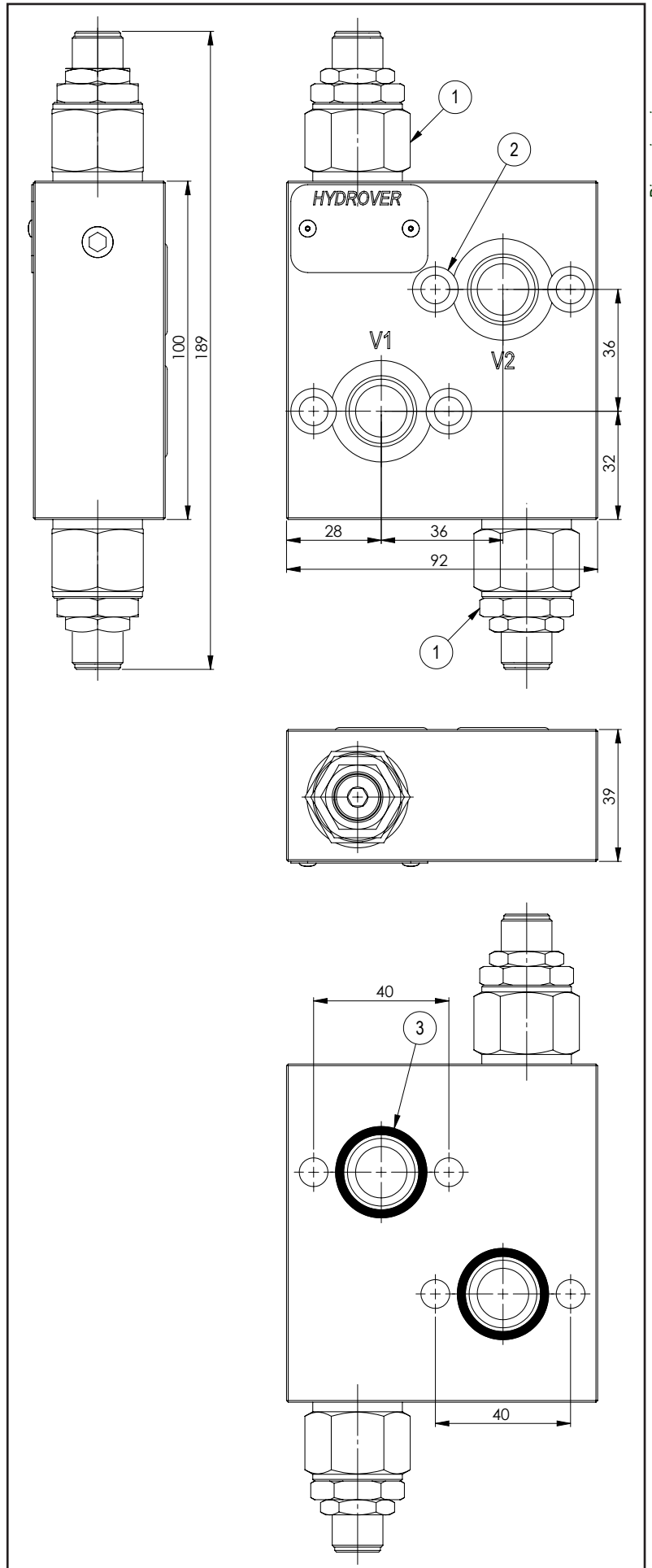


Technical data	
Max. pressure	250 bar
Max. flow	60 lpm *
Weight	1,2 Kg
Manifold material	Aluminium
V1 / V2 ports	1/2" G



N°	Description	Q.ty
1	Bosch Rexroth relief valve VMD1.070 *	2
2	Ø 8,5 through hole for mounting with counterbore	4
3	OR 130 i. Ø 22,22 cross section 2,62	2

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue



Dimensions in mm

Ordering code

H 1 4 0 1 3 A - - - -

Hydrover product

Product series

14 series - Valves for hydraulic motors

Product ID

Manifold material

Aluminium

Relief valve adjustment type on V1 *

Screw

= S

Relief valve adjustment pressure range on V1 *

10-60 bar

= 0

40-110 bar

= 1

110-220 bar

= 2

220-260 bar

= 3

Relief valve adjustment pressure range on V2 *

0 = 10-60 bar

1 = 40-110 bar

2 = 110-220 bar

3 = 220-260 bar

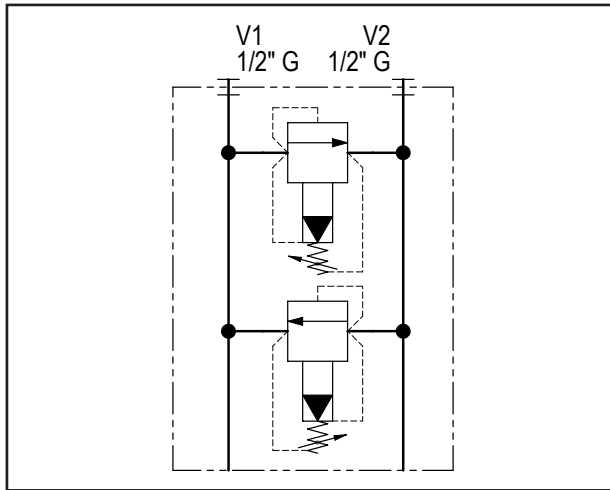
Relief valve adjustment type on V2 *

S = Screw

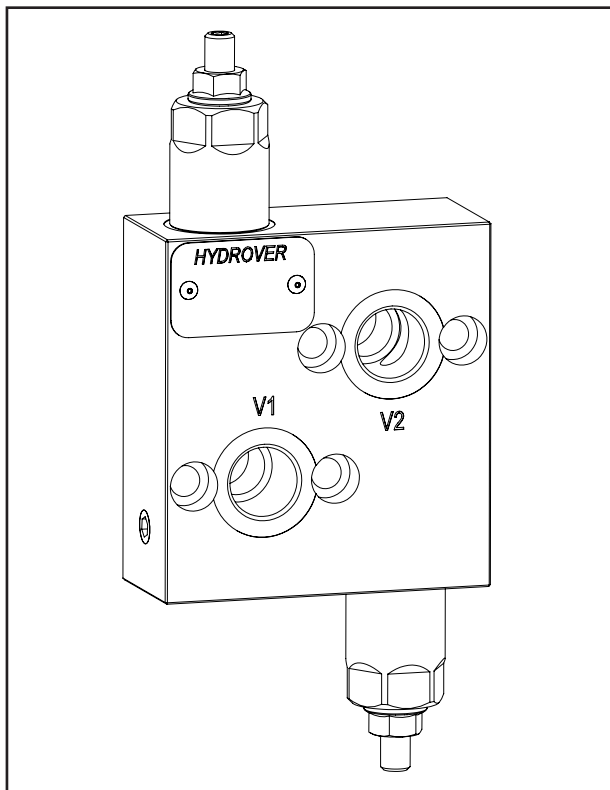
* Omit if not required. To order the product without the pressure relief cartridge valves, omit the pressure range and the adjustment type options: H14013A.

The manifold will still be provided with the corresponding cavities.

Relief valve double effect for OMH-OMP-OMR motors / 80 lpm **H14014**

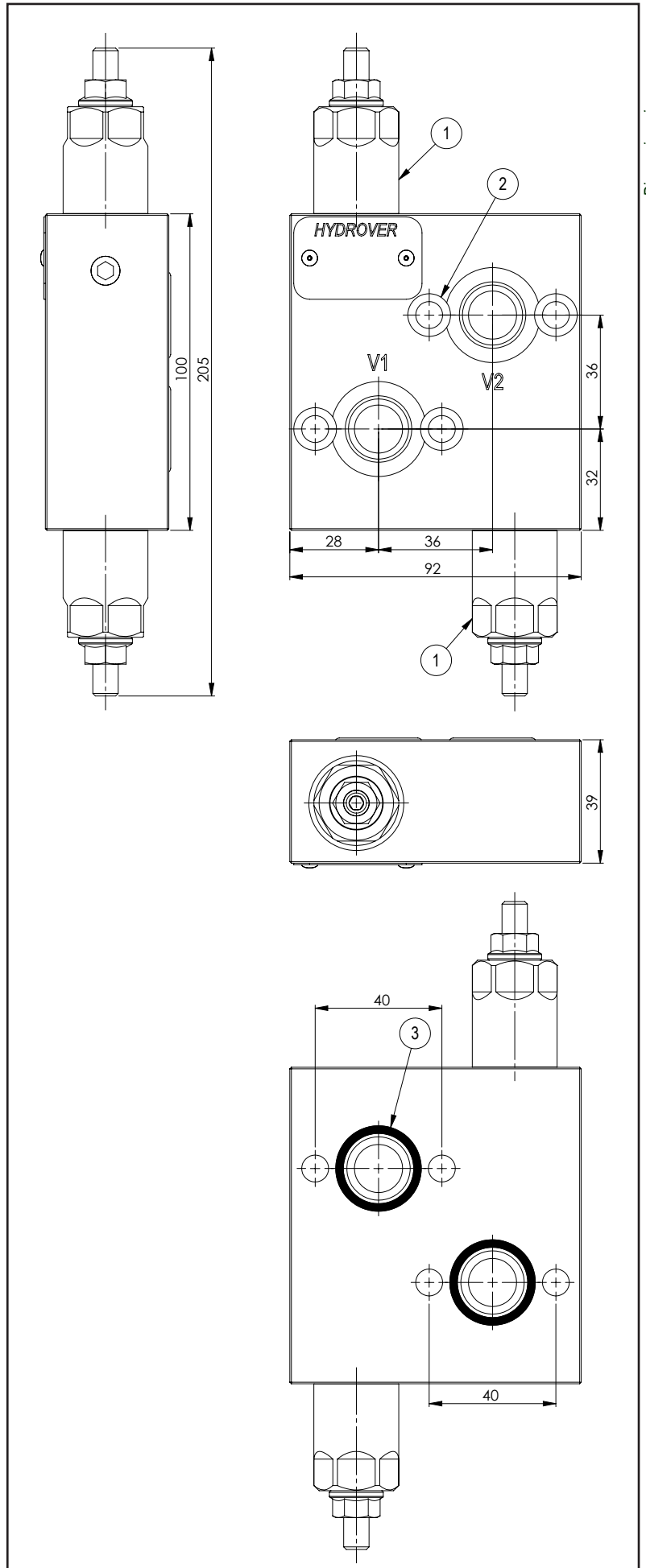


Technical data	
Max. pressure	250 bar
Max. flow	80 lpm *
Weight	1,3 Kg
Manifold material	Aluminium
V1 / V2 ports	1/2" G



N°	Description	Q.ty
1	Bosch Rexroth relief valve VSPN-10A depicted with screw adjustment *	2
2	Ø 8,5 through hole for mounting with counterbore	4
3	OR 130 i. Ø 22,22 cross section 2,62	2

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue



Dimensions in mm

Ordering code

H	1	4	0	1	4	A	-	-	-	-	-
---	---	---	---	---	---	---	---	---	---	---	---

Hydrover product

Product series

14 series - Valves for hydraulic motors

Product ID

Manifold material

Aluminium

Relief valve adjustment type on V1 *

Screw

= S

Knob

= K

Relief valve adjustment pressure range on V1 *

35-140 bar

= 1

70-280 bar

= 2

140-420 bar

= 3

35-350 bar (reg. volante)

= 3

Relief valve adjustment pressure range on V2 *

1 = 35-140 bar

2 = 70-280 bar

3 = 140-420 bar

3 = 35-350 bar (reg. volante)

Relief valve adjustment type on V2 *

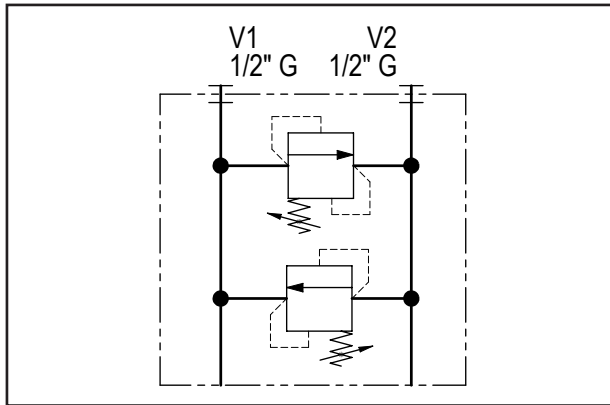
S = Screw

K = Knob

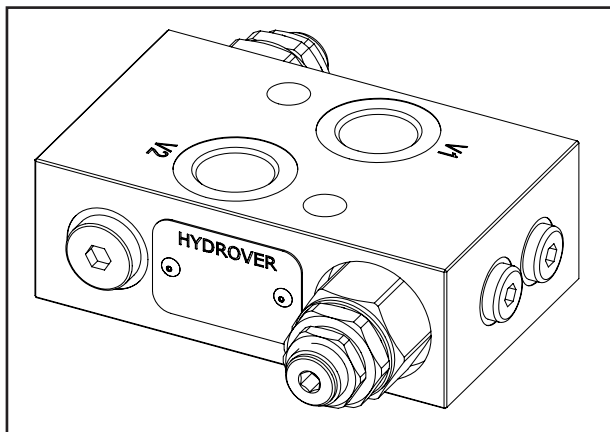
* Omit if not required. To order the product without the pressure relief cartridge valves, omit the pressure range and the adjustment type options: H14014A.

The manifold will still be provided with the corresponding cavities.

Relief valve double effect for OMS motors / 60 lpm **H14032**

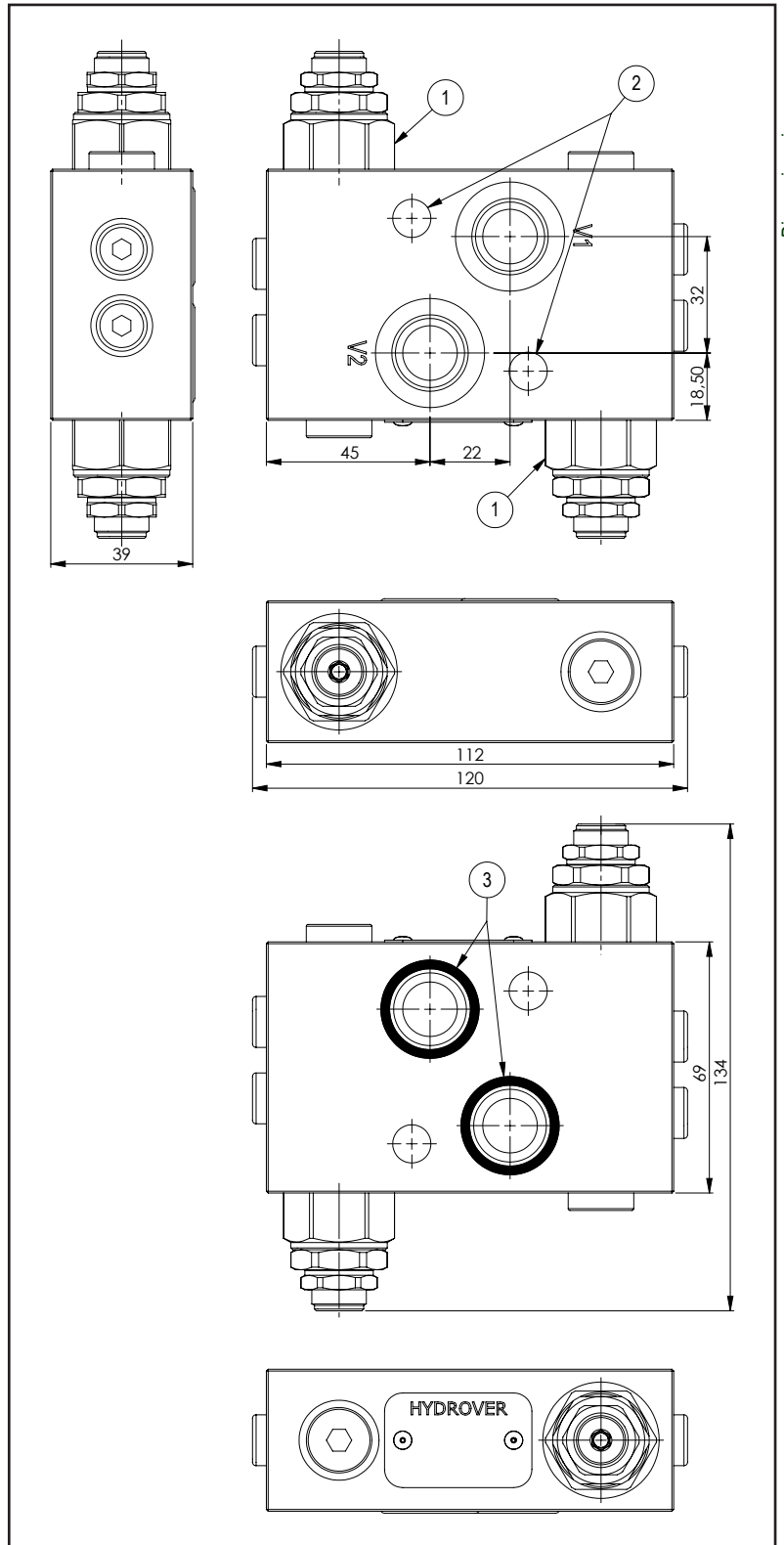


Technical data	
Max. pressure	250 bar
Max. flow	60 lpm *
Weight	1 Kg
Manifold material	Aluminium
V1 / V2 ports	1/2" G



N°	Description	Q.ty
1	Bosch Rexroth relief valve VMD1.070 *	2
2	Ø 10,5 through hole for mounting	2
3	OR 130 i. Ø 22,22 cross section 2,62	2

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue



Dimensions in mm

Ordering code

H	1	4	0	3	2	A	-	_	_	-	_	_
---	---	---	---	---	---	---	---	---	---	---	---	---

Hydrover product

Product series

14 series - Valves for hydraulic motors

Product ID

Manifold material

Aluminium

Relief valve adjustment type on V1 *

Screw

= S

Relief valve adjustment pressure range on V1 *

10-60 bar

= 0

40-110 bar

= 1

110-220 bar

= 2

220-260 bar

= 3

Relief valve adjustment pressure range on V2 *

0 = 10-60 bar

1 = 40-110 bar

2 = 110-220 bar

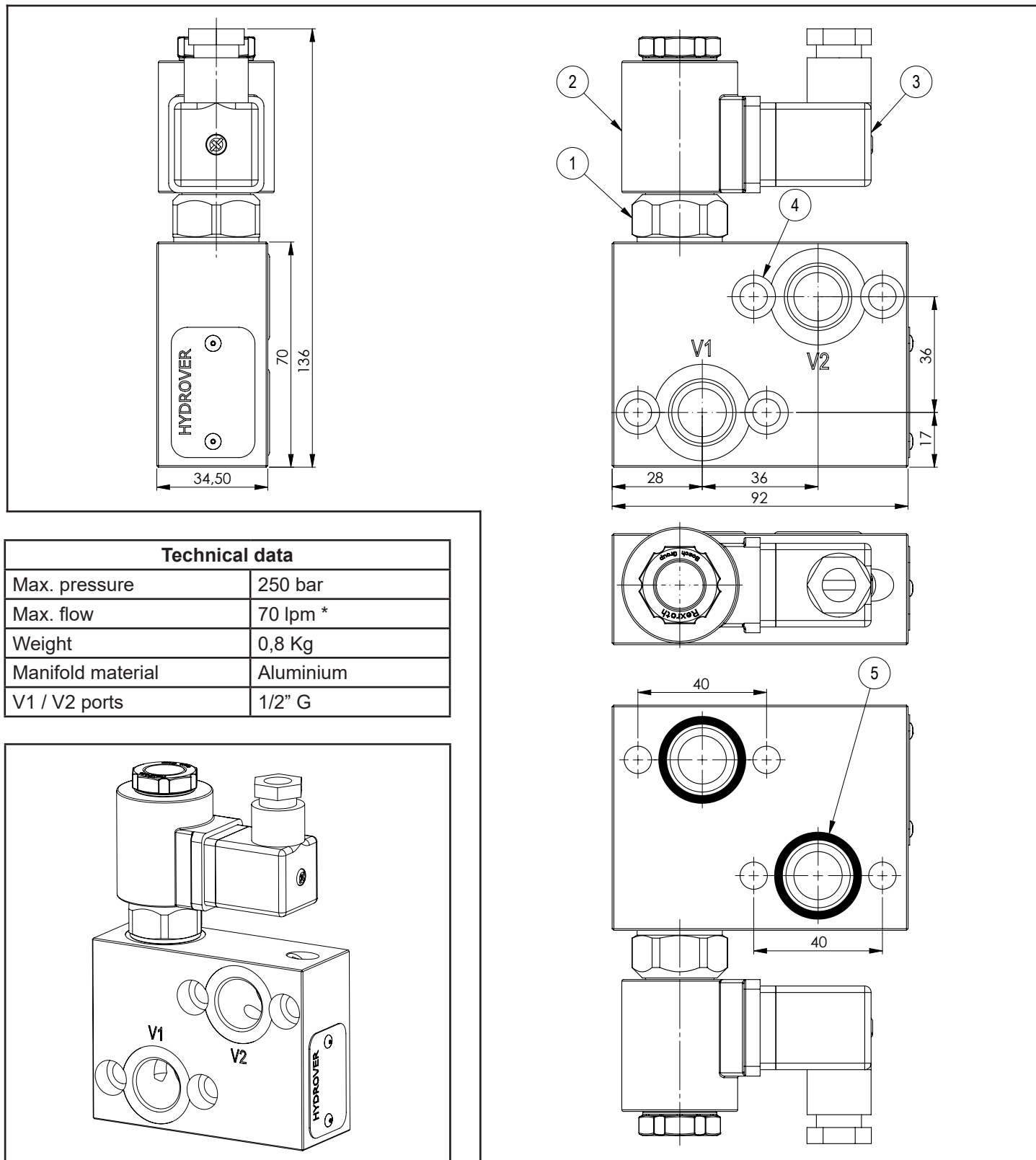
3 = 220-260 bar

Relief valve adjustment type on V2 *

S = Screw

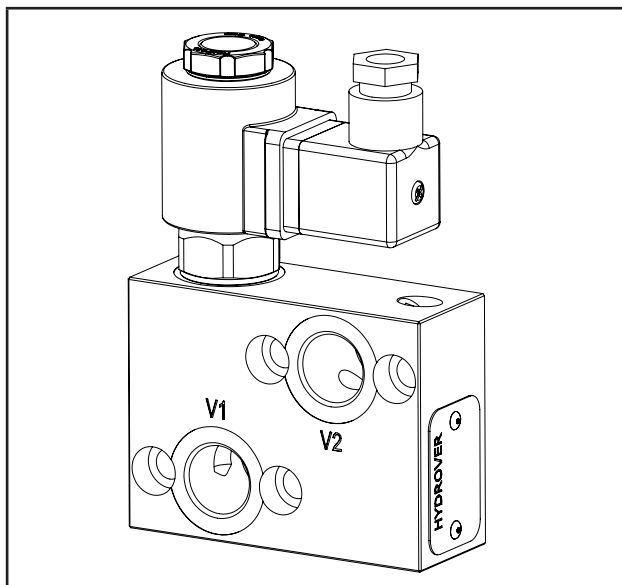
* Omit if not required. To order the product without the pressure relief cartridge valves, omit the pressure range and the adjustment type options: H14032A.

The manifold will still be provided with the corresponding cavities.



Dimensions in mm

Technical data	
Max. pressure	250 bar
Max. flow	70 lpm *
Weight	0,8 Kg
Manifold material	Aluminium
V1 / V2 ports	1/2" G



N°	Description	Q.ty
1	Bosch Rexroth solenoid valve VEI-16-10A-NC OD.15-X-36-Y-000000 (normally closed) or VEI-16-10A-NA OD.15-X-36-Y-000000 (normally open) depicted without manual override *	1
2	Bosch Rexroth coil D36 - CLASS H DIN 43650 ISO 4400 *	1
3	Connector DIN 43650 ISO 4400	1
4	Ø 8,5 through hole for mounting with counterbore	4
5	OR 130 i. Ø 22,22 cross section 2,62	2

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue

Ordering code



Hydrover product

Product series
14 series - Valves for hydraulic motors

Product ID

Manifold material
Aluminium

Solenoid valve spool type *

- Normally open = NA
- Normally closed = NC
- Normally open double lock = 2A
- Normally closed double lock = 2C

Solenoid valve coil connection *

- 1 = DIN 43650 ISO 4400

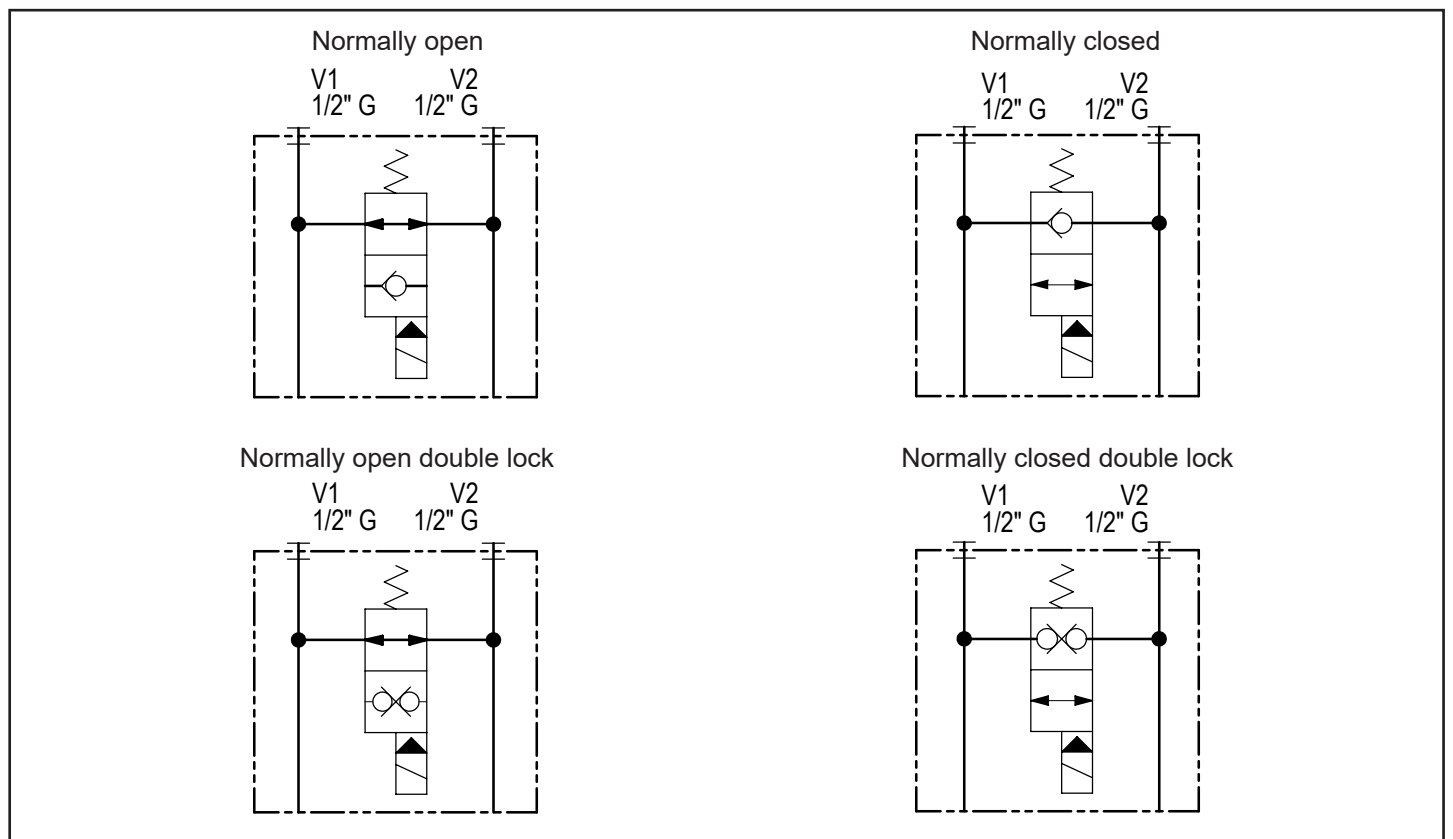
Solenoid valve coil voltage *

- OB = 12V DC
- OC = 24V DC
- OD = 48V DC
- OU = 110V RAC
- AH = 230V RAC

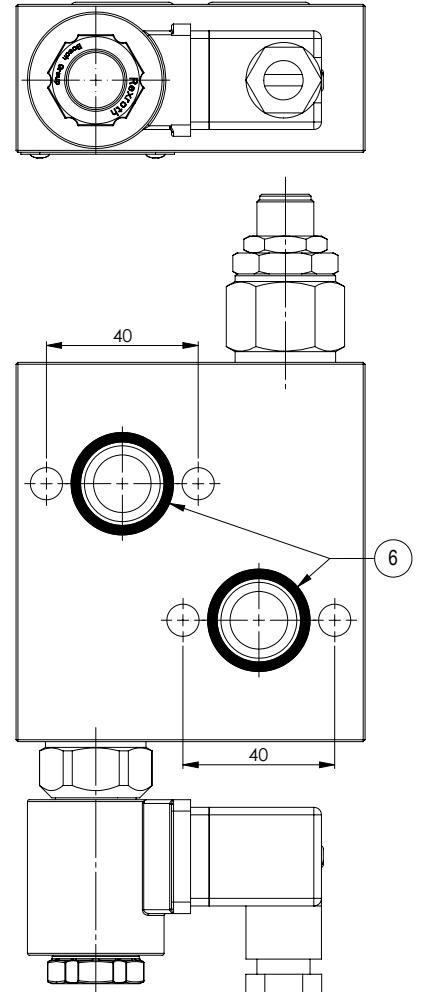
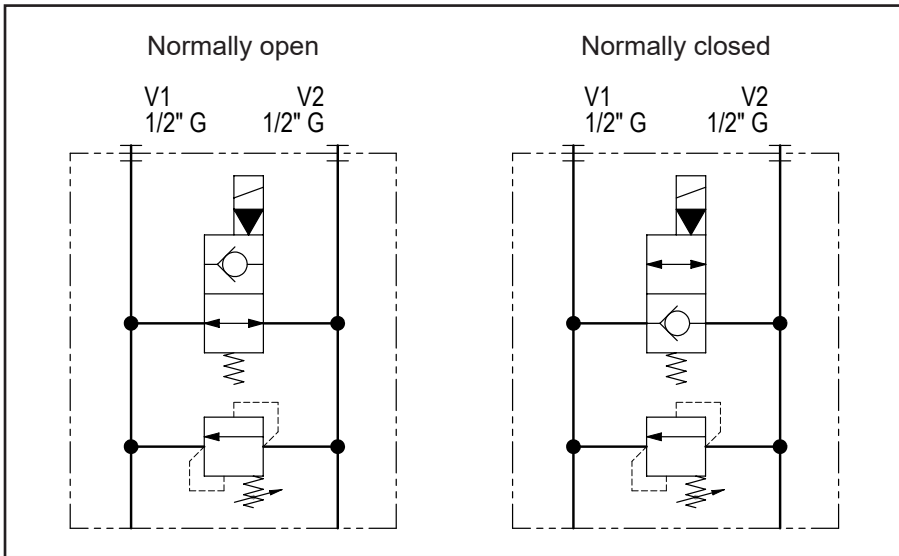
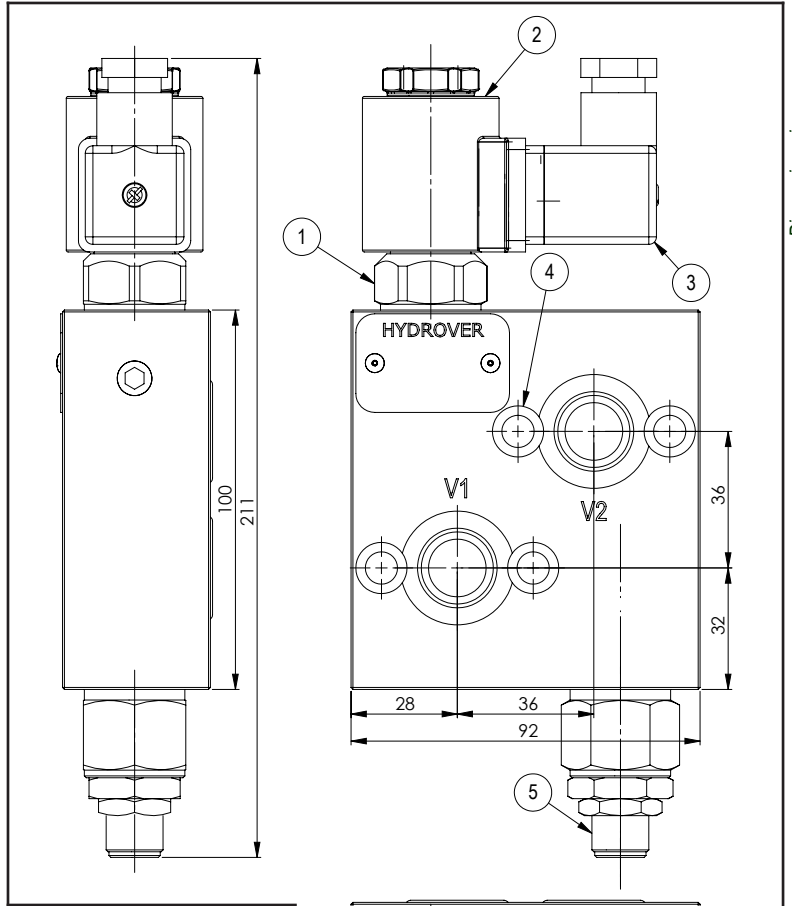
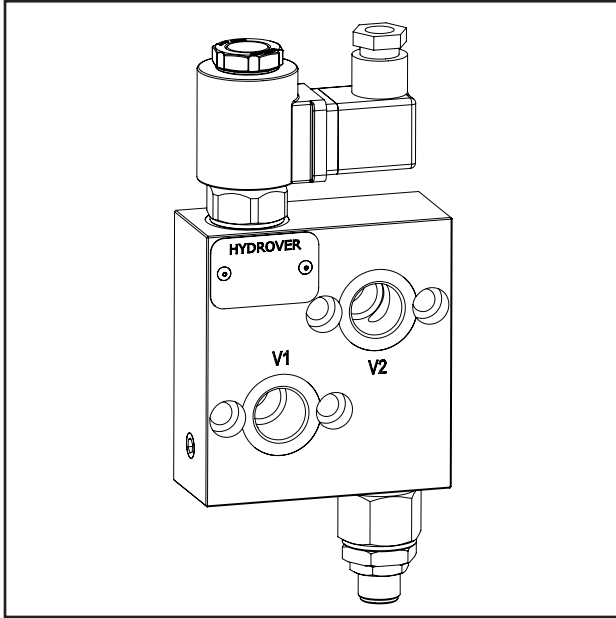
Solenoid valve manual override *

- E0 = Without
- EP = Push (NA)
- EV = Screw (NC)
- EG = Push and twist (NA)

* Omit if not required. For example, to order the product without the solenoid cartridge valve, omit the coil connection, coil voltage and manual override options: H14002A.
The manifold will still be provided with the corresponding cavity.



Technical data	
Max. pressure	250 bar
Max. flow	60 lpm *
Weight	1,4 Kg
Manifold material	Aluminium
V1 / V2 ports	1/2" G



N°	Description	Q.ty
1	Bosch Rexroth solenoid valve OD.15.05.36-Y-000000 (normally closed) or OD.15.06.36-Y-000000 (normally open) depicted without manual override *	1
2	Bosch Rexroth coil D36 - CLASS H DIN 43650 ISO 4400 *	1
3	Connector DIN 43650 ISO 4400	1
4	Ø 8,5 through hole for mounting with counterbore	4
5	Bosch Rexroth relief valve VMD1.070 *	1
6	OR 130 i. Ø 22,22 cross section 2,62	2

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue

Ordering code

H 1 4 0 1 0 A - - - - - - - - - -

Hydrover product

Product series

14 series - Valves for hydraulic motors

Product ID

Manifold material

Aluminium

= A

Relief valve adjustment type *

Screw

= S

Relief valve adjustment pressure range *

10-60 bar

= 0

40-110 bar

= 1

110-220 bar

= 2

220-260 bar

= 3

Solenoid valve coil connection *

1 = DIN 43650
ISO 4400

Solenoid valve coil voltage *

OB = 12V DC
OC = 24V DC
OD = 48V DC
OU = 110V RAC
AH = 230V RAC

Solenoid valve manual override *

E0 = Without
EP = Push (NA)
EV = Screw (NC)
EG = Push and twist (NA)

Solenoid valve spool type *

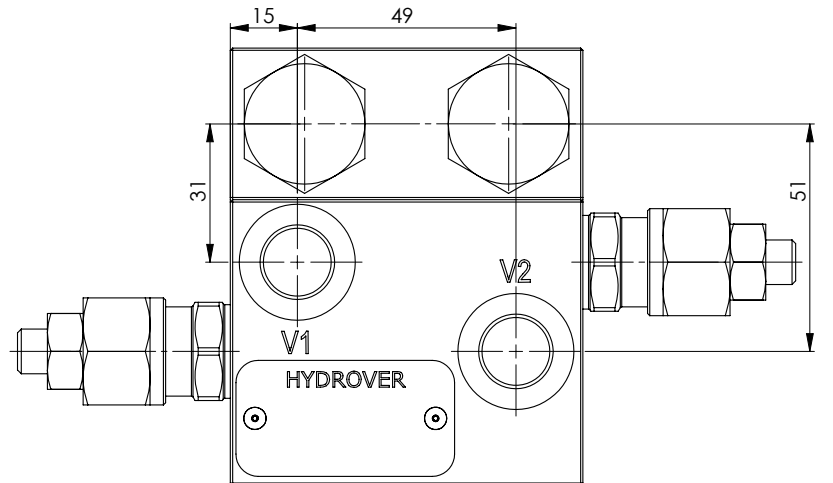
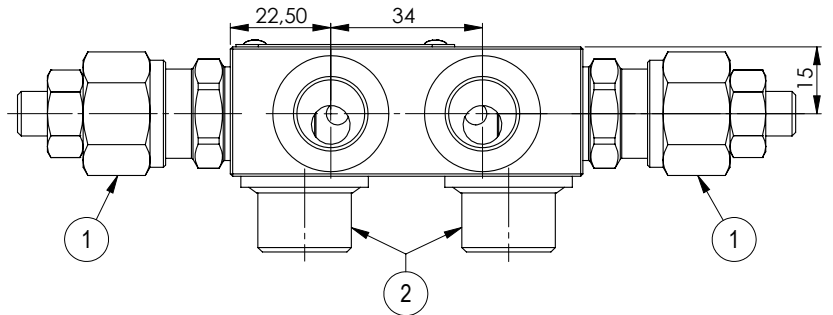
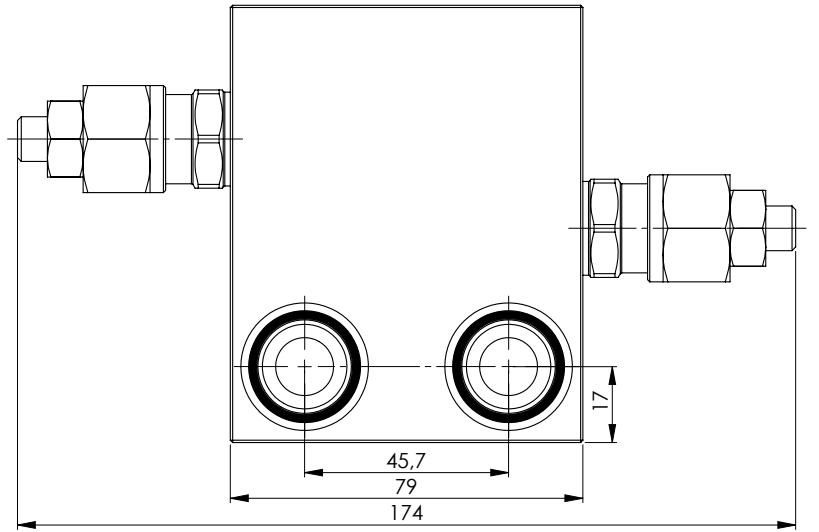
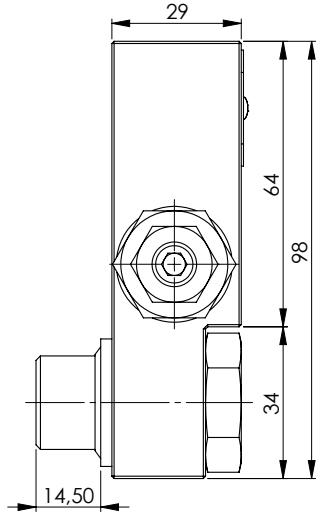
NA = Normally open
NC = Normally closed

* Omit if not required. For example, to order the product without the solenoid cartridge valve, omit the coil connection, coil voltage and manual override options: H14010A-S2.
The manifold will still be provided with the corresponding cavity.
To inhibit a function, replace the related valve options with TL: eg H14010A-S2-TL.
In the cavity it will be mounted a long plug.

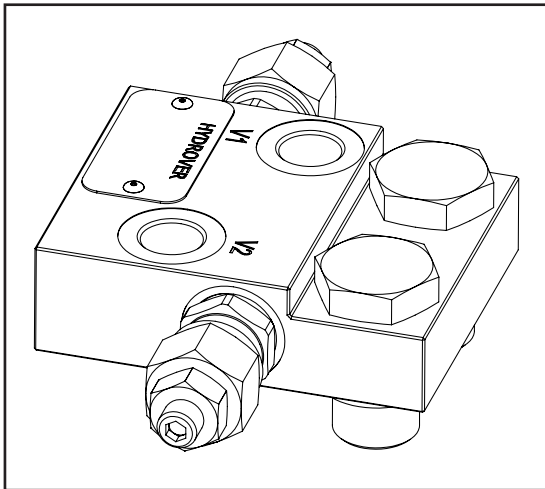
Valve	Cavity	Long plug code
Solenoid valve OD.15.05.36-Y-000000 o OD.15.06.36-Y-000000	CA-10A-2N	0489A200850000
Pressure relief valve VMD1.070	CA-10A-2N	0489A200850000

Relief valve double effect for Parker TE motors / 30 lpm **H14005**

Dimensions in mm

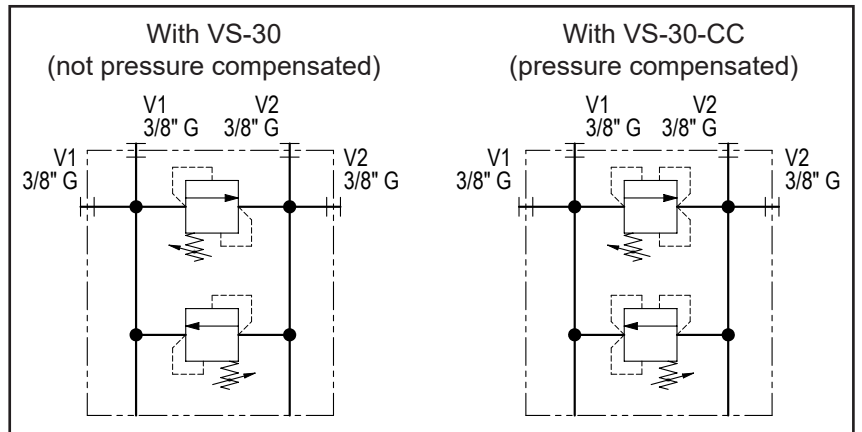


Technical data	
Max. pressure	250 bar
Max. flow	30 lpm *
Weight	1 Kg
Manifold material	Aluminium
V1 / V2 ports	3/8" G



N°	Description	Q.ty
1	Bosch Rexroth relief valve VS-30 (as depicted) or Bosch Rexroth sequence valve VS-30-CC *	2
2	Banjo bolt 1/2" G	2

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue



Ordering code

H	1	4	0	0	5	A	-	-	-	-	-	-
---	---	---	---	---	---	---	---	---	---	---	---	---

Hydrover product

Product series

14 series - Valves for hydraulic motors

Product ID

Manifold material

Aluminium

Adjustment type for valve on V1*

Screw = S
Knob (only for VS-30) = K

Pressure range adjustment for valve on V1 *

5-50 bar = 0
30-100 bar = 1
50-210 bar = 2
100-350 bar = 3

V2 valve type *

S = VS-30-CC
M = VS-30

Pressure range adjustment for valve on V2 *

0 = 5-50 bar
1 = 30-100 bar
2 = 50-210 bar
3 = 100-350 bar

Adjustment type for valve on V2*

S = Screw
K = Knob (only for VS-30)

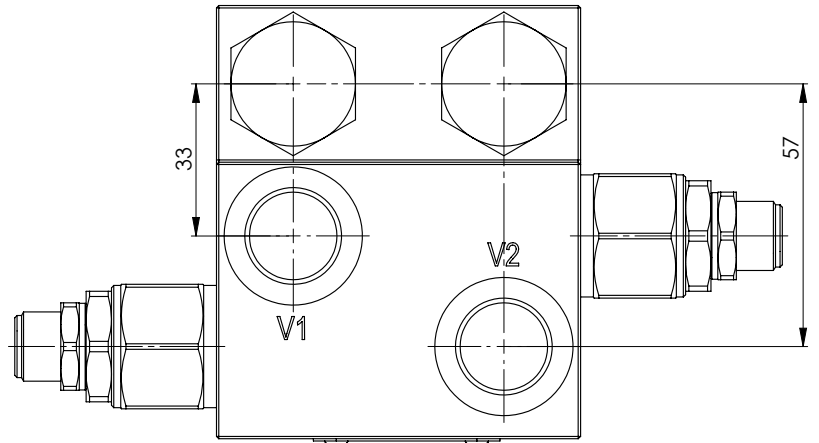
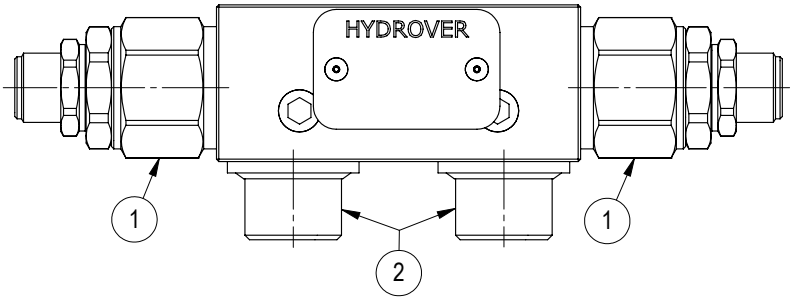
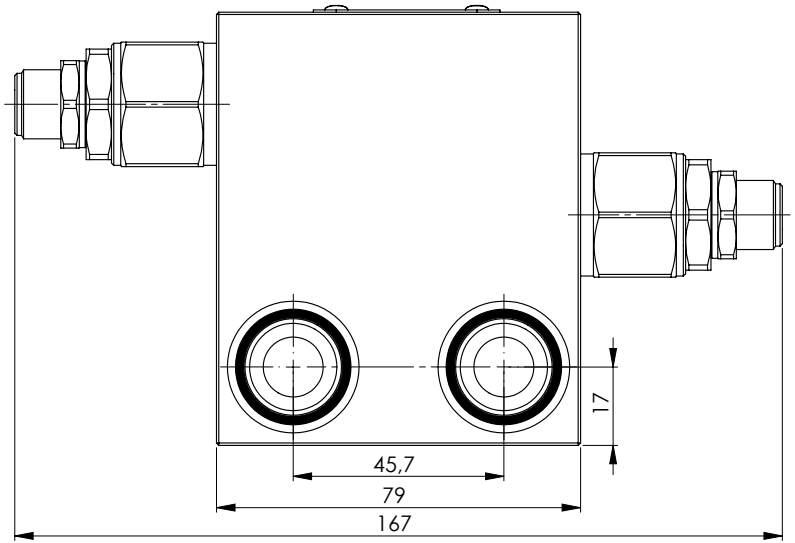
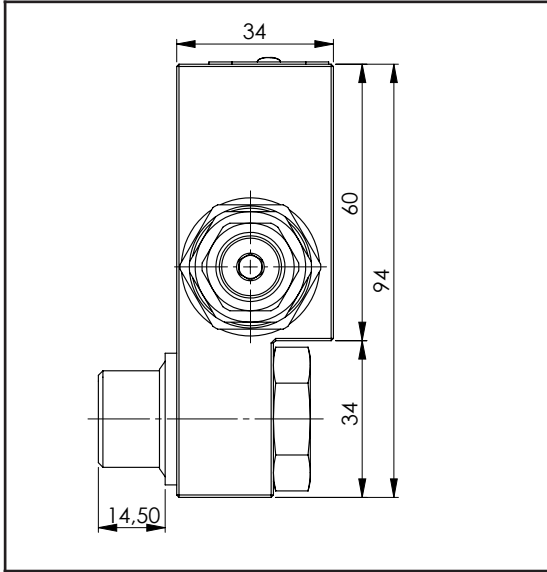
V1 valve type *

S = VS-30-CC
M = VS-30

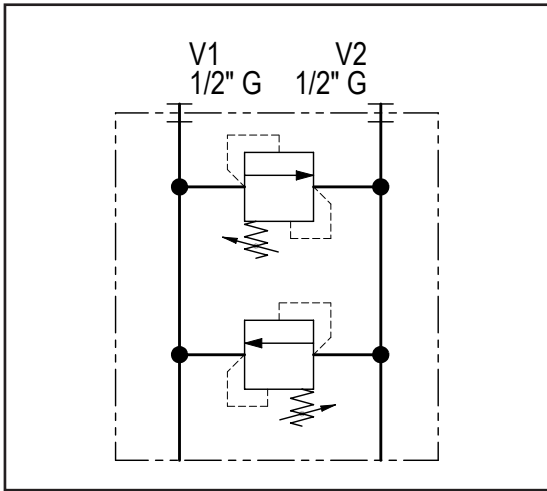
* Omit if not required. To order the product without valves, omit their options: H14005A.
The manifold will still be provided with the corresponding cavities.

Relief valve double effect for Parker TE motors / 40 lpm **H14006**

Dimensions in mm

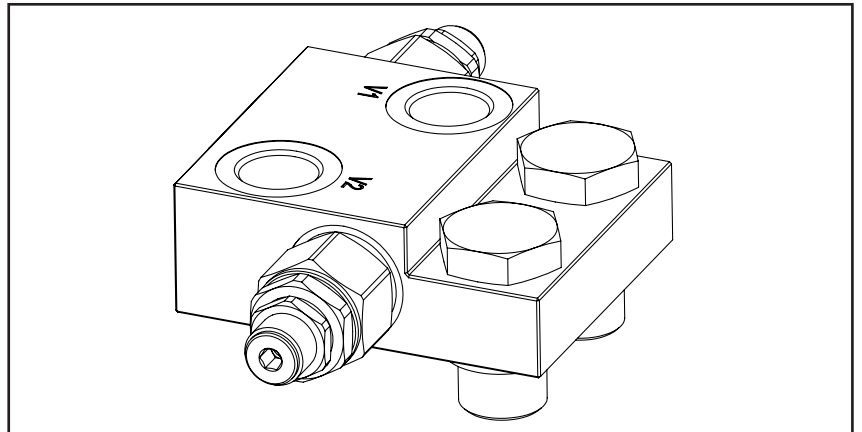


Technical data	
Max. pressure	250 bar
Max. flow	40 lpm *
Weight	1 Kg
Manifold material	Aluminium
V1 / V2 ports	1/2" G



N°	Description	Q.ty
1	Bosch Rexroth relief valve VMD1.040 *	2
2	Banjo bolt 1/2" G	2

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue



Ordering code

H	1	4	0	0	6	A	-	-	-	-	-
---	---	---	---	---	---	---	---	---	---	---	---

Hydrover product

Product series

14 series - Valves for hydraulic motors

Product ID

Manifold material

Aluminium

Relief valve adjustment type on V1 *

Screw

= S

Relief valve adjustment pressure range on V1 *

25-120 bar

= 1

40-200 bar

= 2

200-350 bar

= 3

Relief valve adjustment pressure range on V2 *

1= 25-120 bar

2= 40-200 bar

3= 200-350 bar

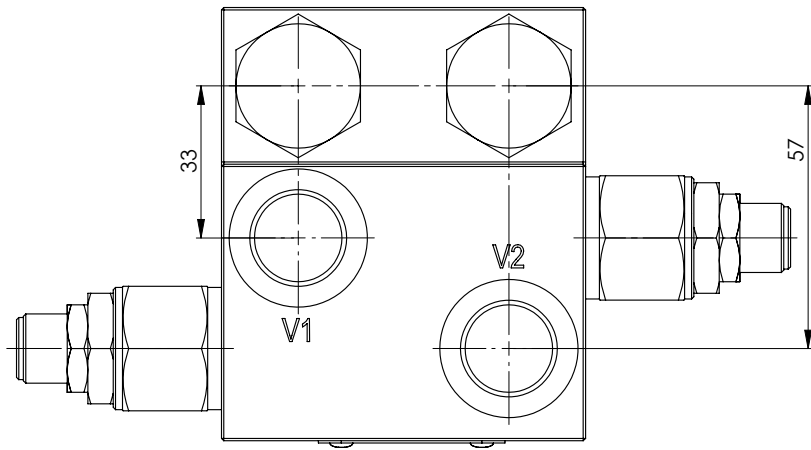
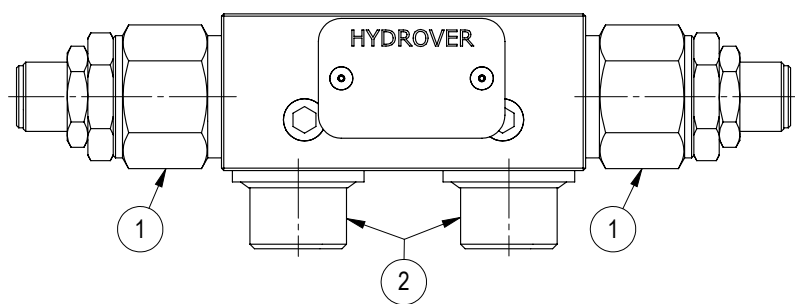
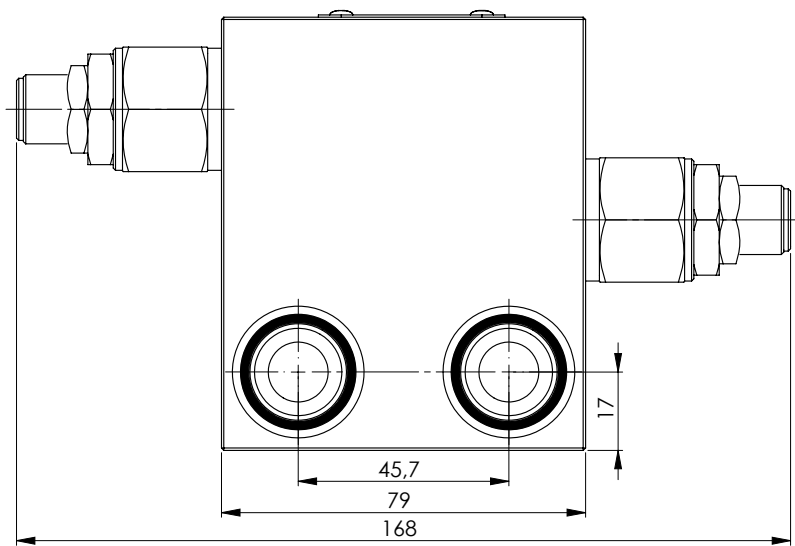
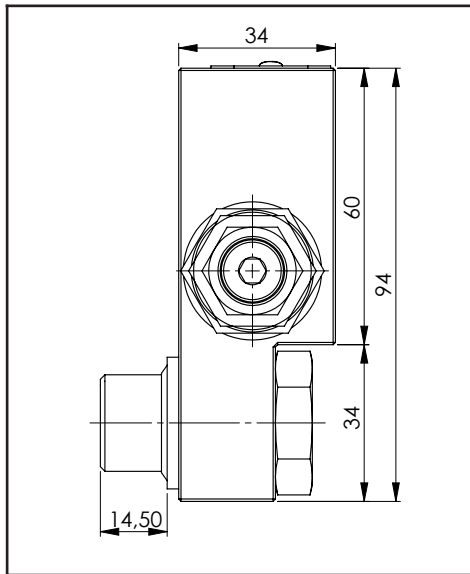
Relief valve adjustment type on V2 *

S = Screw

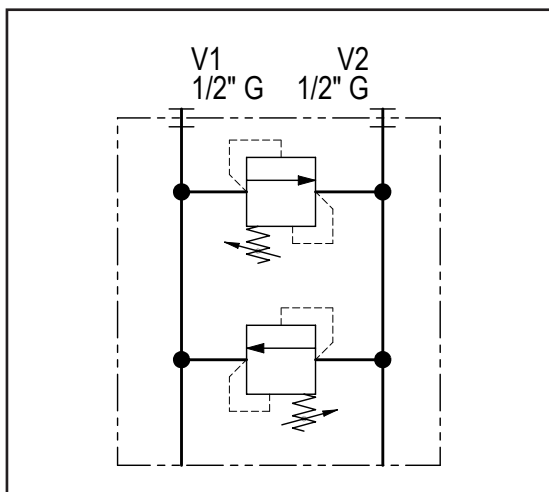
* Omit if not required. To order the product without the pressure relief cartridge valves, omit the pressure range and the adjustment type options: H14004A.

The manifold will still be provided with the corresponding cavities.

Dimensions in mm

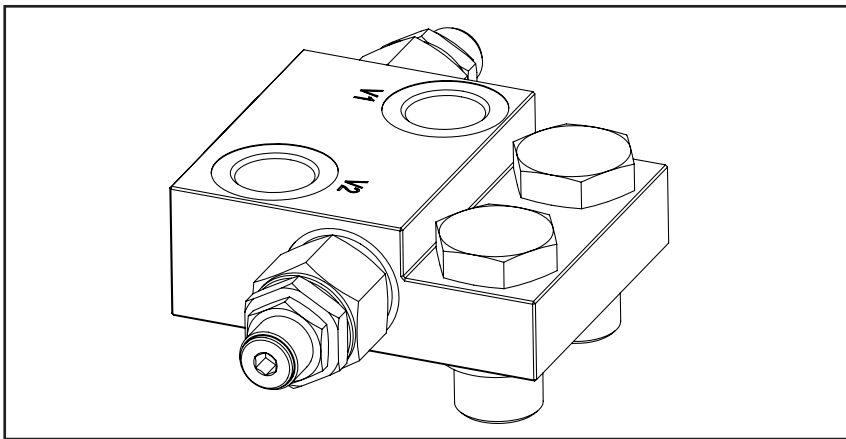


Technical data	
Max. pressure	250 bar
Max. flow	60 lpm *
Weight	1 Kg
Manifold material	Aluminium
V1 / V2 ports	1/2" G



N°	Description	Q.ty
1	Bosch Rexroth relief valve VMD1.070 *	2
2	Banjo bolt 1/2" G	2

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue



Ordering code

H	1	4	0	0	4	A	-	-	-	-	-
---	---	---	---	---	---	---	---	---	---	---	---

Hydrover product

Product series

14 series - Valves for hydraulic motors

Product ID

Manifold material

Aluminium

Relief valve adjustment type on V1 *

Screw

= S

Relief valve adjustment pressure range on V1 *

10-60 bar

= 0

40-110 bar

= 1

110-220 bar

= 2

220-260 bar

= 3

Relief valve adjustment pressure range on V2 *

0 = 10-60 bar

1 = 40-110 bar

2 = 110-220 bar

3 = 220-260 bar

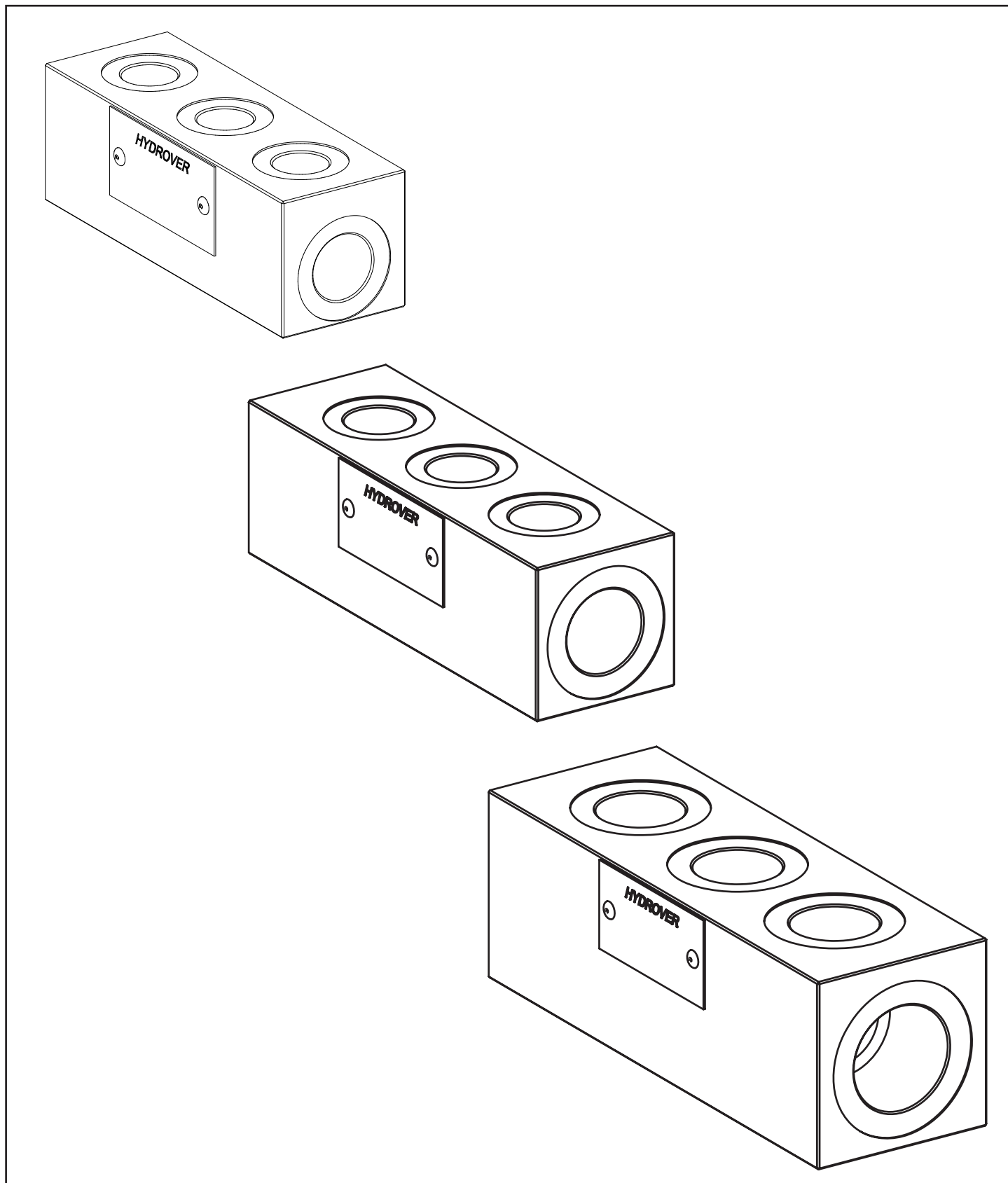
Relief valve adjustment type on V2 *

S = Screw

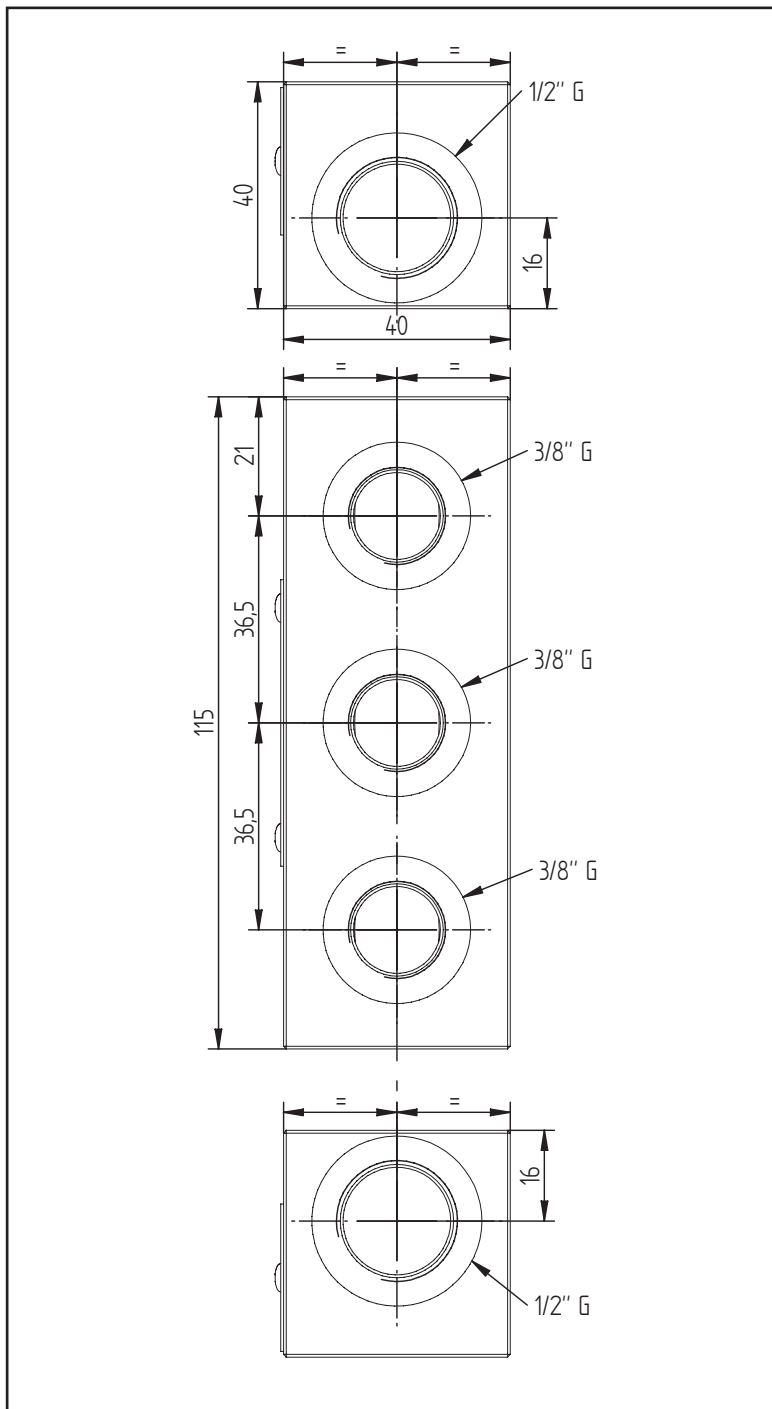
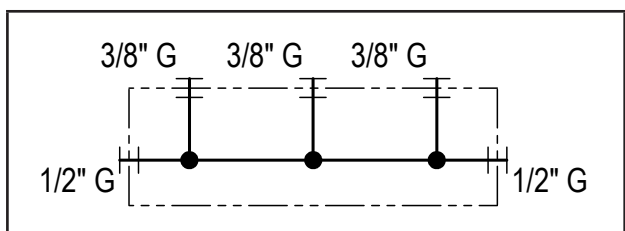
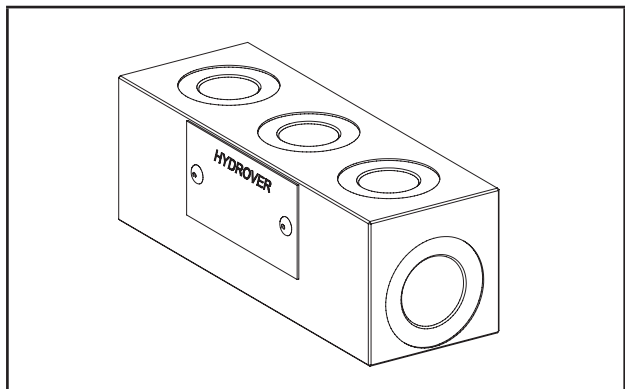
* Omit if not required. To order the product without the pressure relief cartridge valves, omit the pressure range and the adjustment type options: H14004A.

The manifold will still be provided with the corresponding cavities.

16 SERIES Manifolds



Technical data	
Max. pressure	210 bar
Weight	0,4 Kg
Manifold material	Aluminium
Lateral ports	1/2" G
Top ports	3/8" G



H1601

Ordering code

H	1	6	0	1	A
---	---	---	---	---	---

Hydrover product

Product series

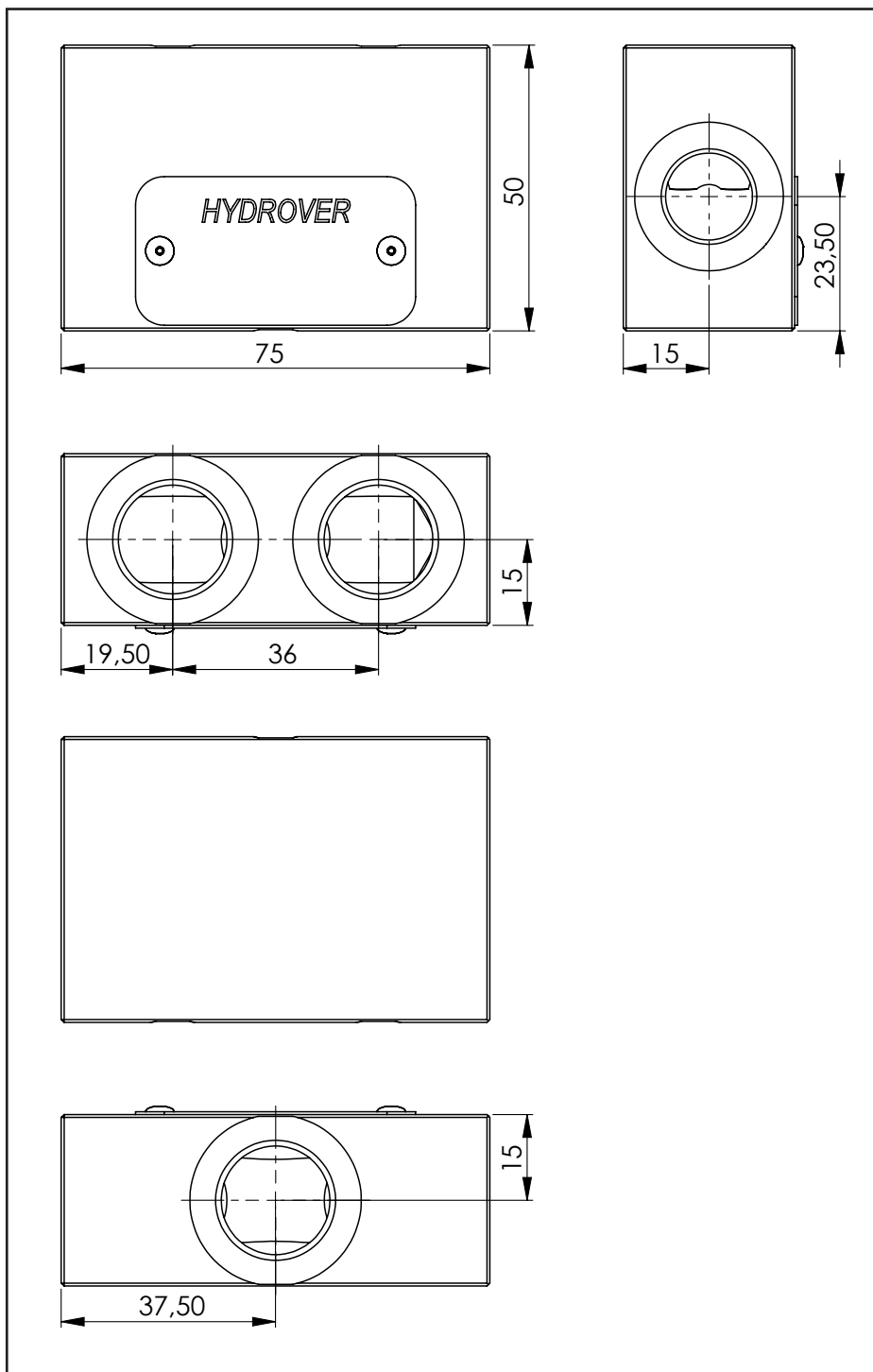
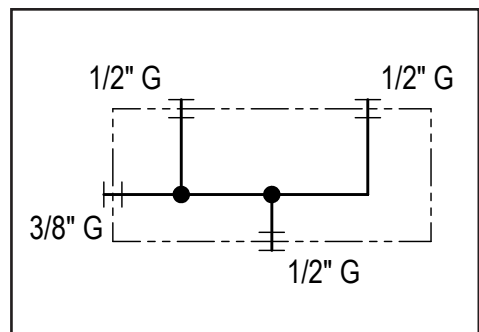
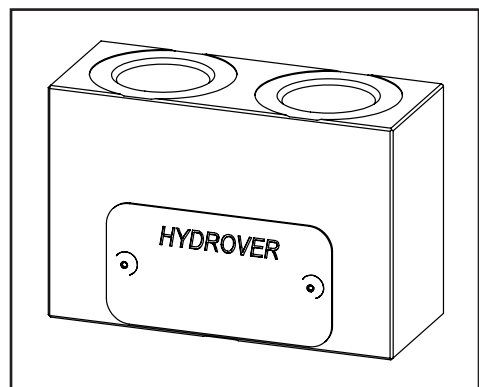
Serie 16 - Manifolds

Manifold material

Aluminium

Product ID

Technical data	
Max. pressure	350 bar
Weight	0,7 Kg
Manifold material	Steel
Top and bottom ports	1/2" G
Lateral port	3/8" G



Dimensions in mm

H1610

Ordering code

H	1	6	1	0	S
---	---	---	---	---	---

Hydrover product

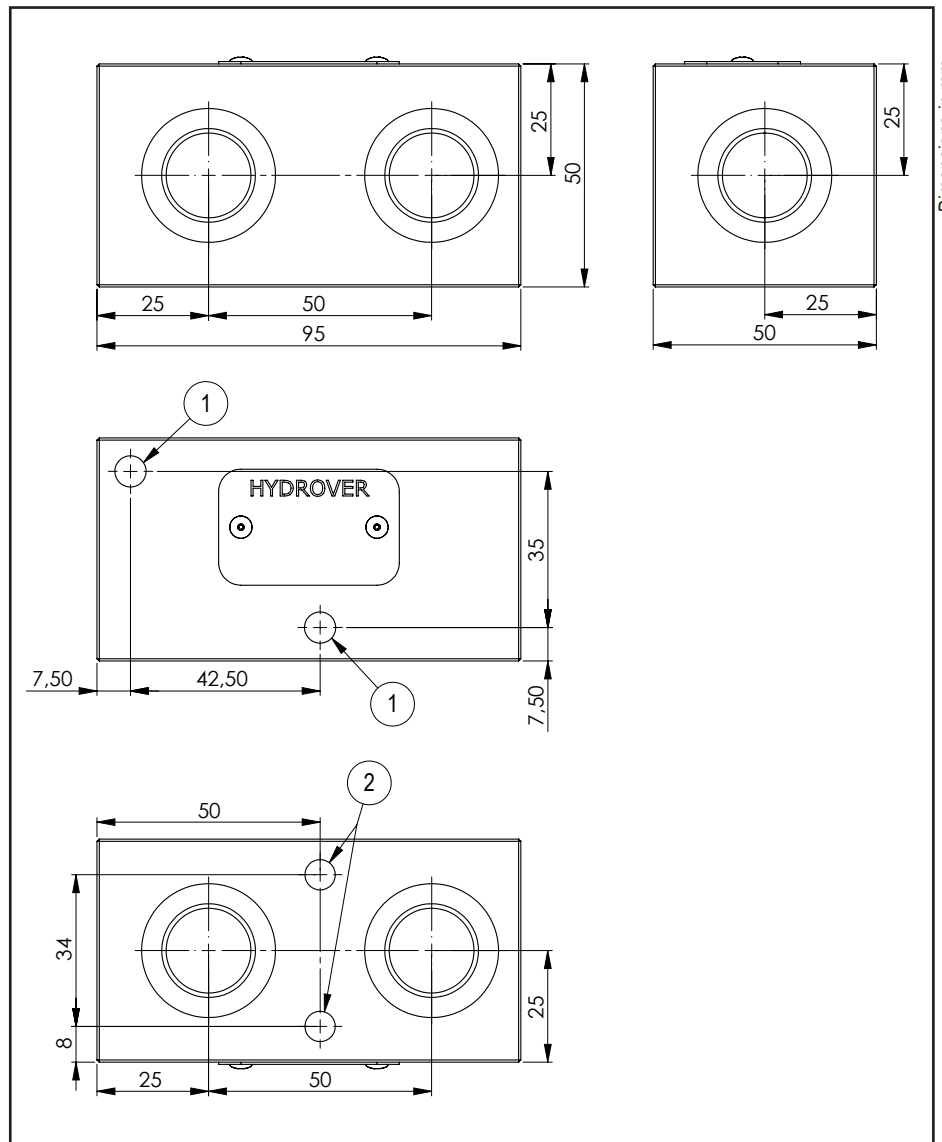
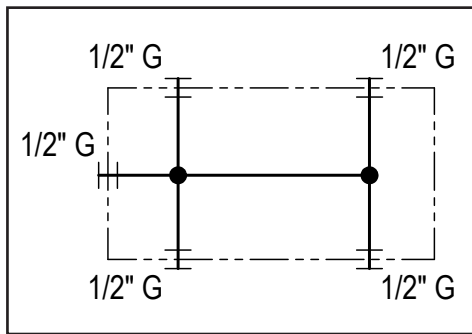
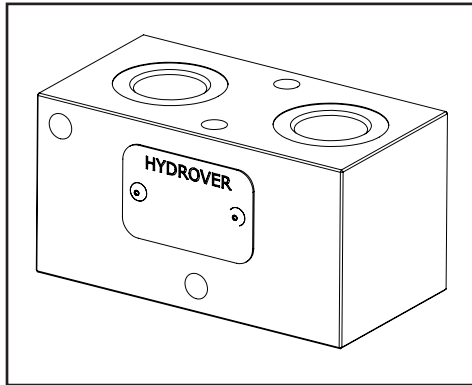
Product series

Serie 16 - Manifolds

Manifold material
Steel

Product ID

Technical data	
Max. pressure	350 bar
Weight	1,5 Kg
Manifold material	Steel
Ports	1/2" G



N°	Description	Q.ty
1	Ø 7 through hole for mounting	2
2	M8x10 thread for mounting	2

H1616

Ordering code

H	1	6	1	6	S
---	---	---	---	---	---

Hydrover product

Manifold material
Steel

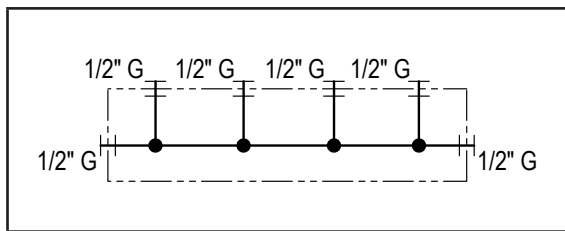
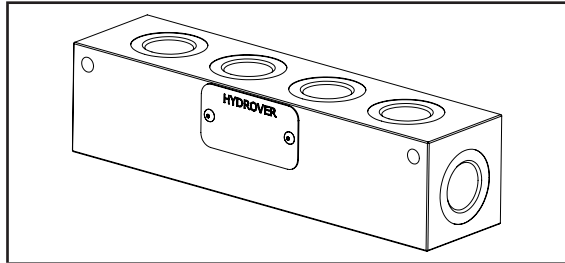
Product series
Serie 16 - Manifolds

Product ID

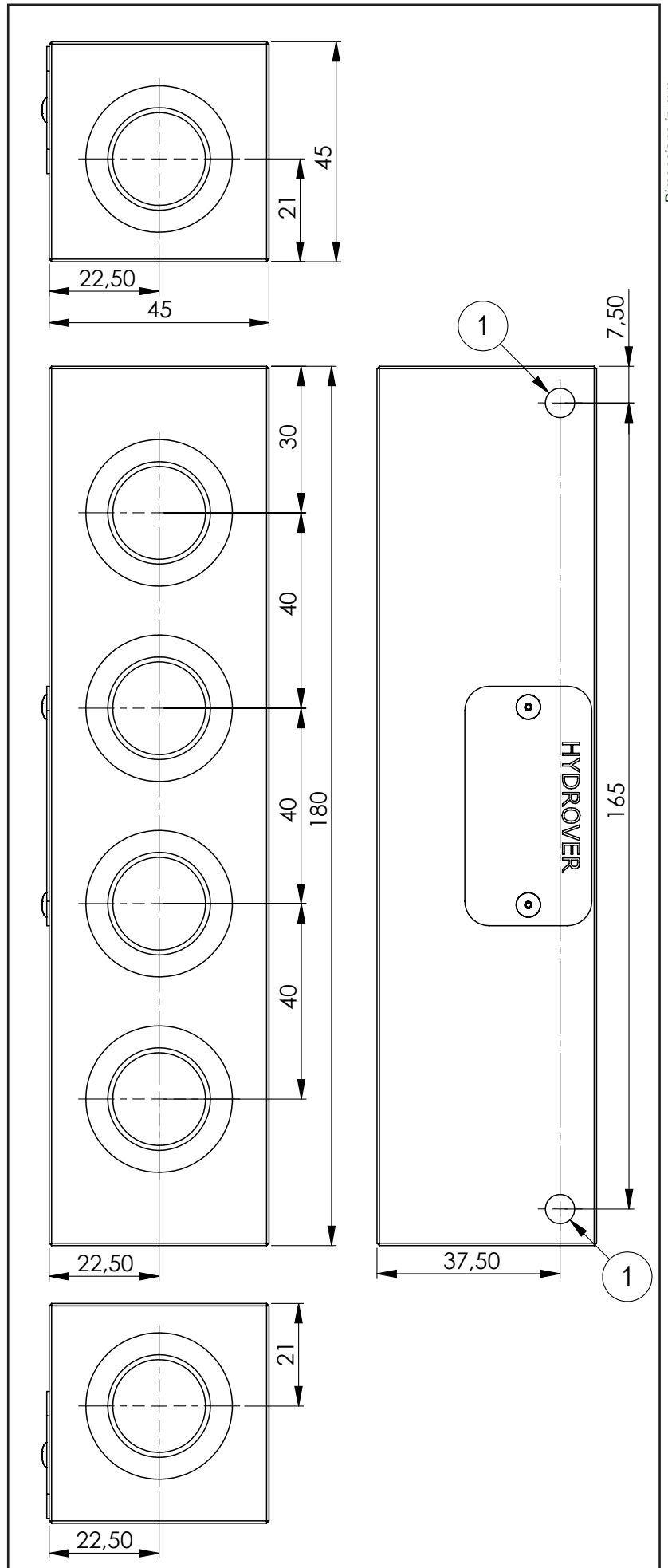
Multi ports manifold / 6 ports 1/2" G **H1611**

Technical data

Max. pressure	210 bar
Weight	0,85 Kg
Manifold material	Aluminium
Ports	1/2" G



N°	Description	Q.ty
1	Ø 6 through hole for mounting	2



H1611

Ordering code

H	1	6	1	1	A
---	---	---	---	---	---

Hydrover product

Product series

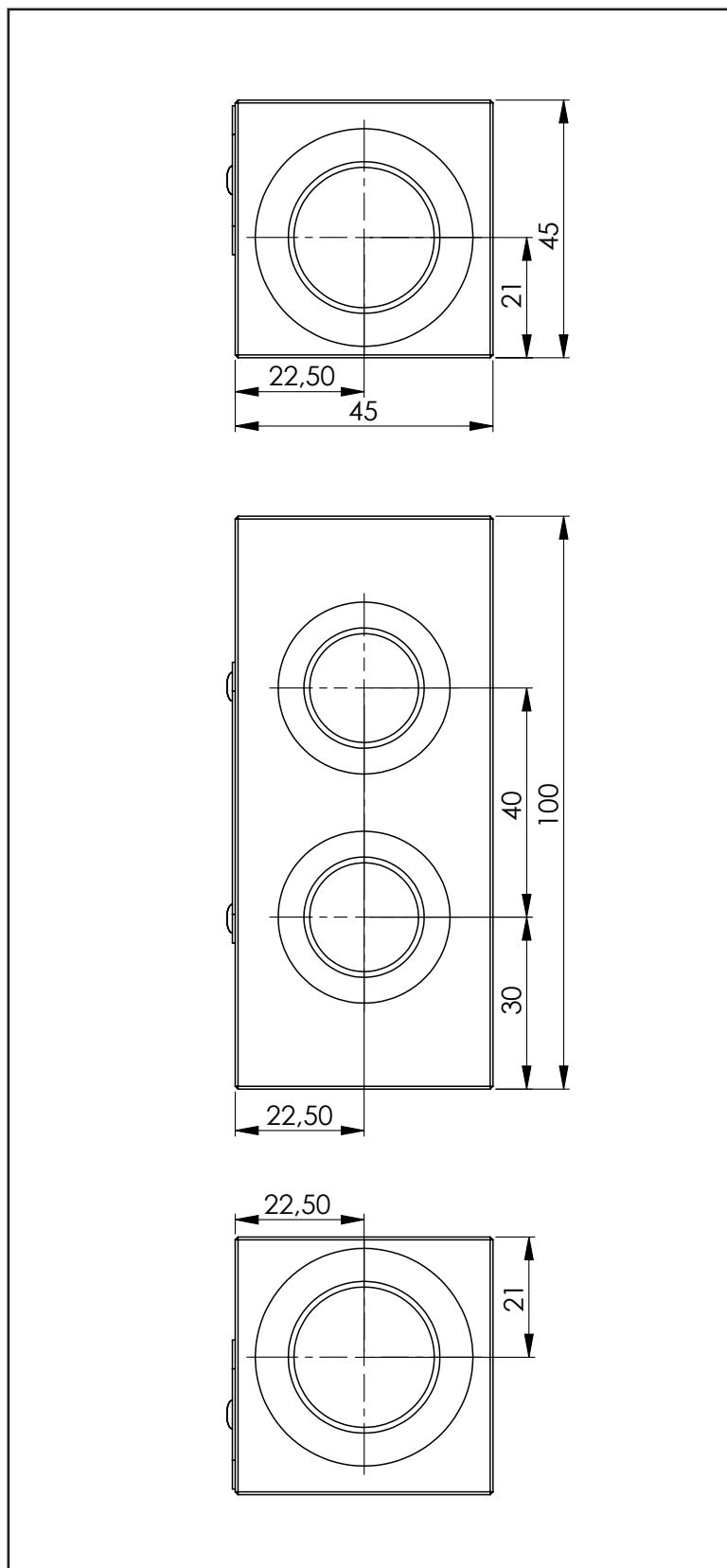
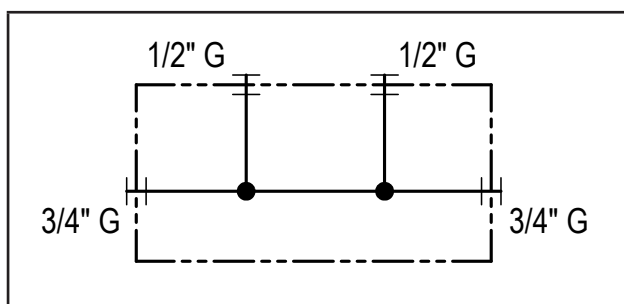
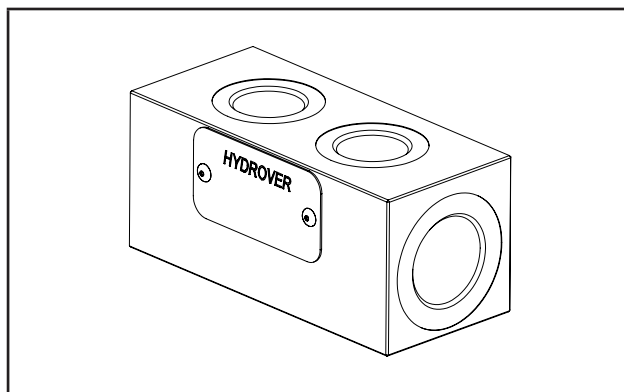
Serie 16 - Manifolds

Manifold material

Aluminium

Product ID

Technical data	
Max. pressure	210 bar
Weight	0,4 Kg
Manifold material	Aluminium
Lateral ports	3/4" G
Top ports	1/2" G



Dimensions in mm

H1608

Ordering code

H	1	6	0	8	A
---	---	---	---	---	---

Hydrover product

Product series

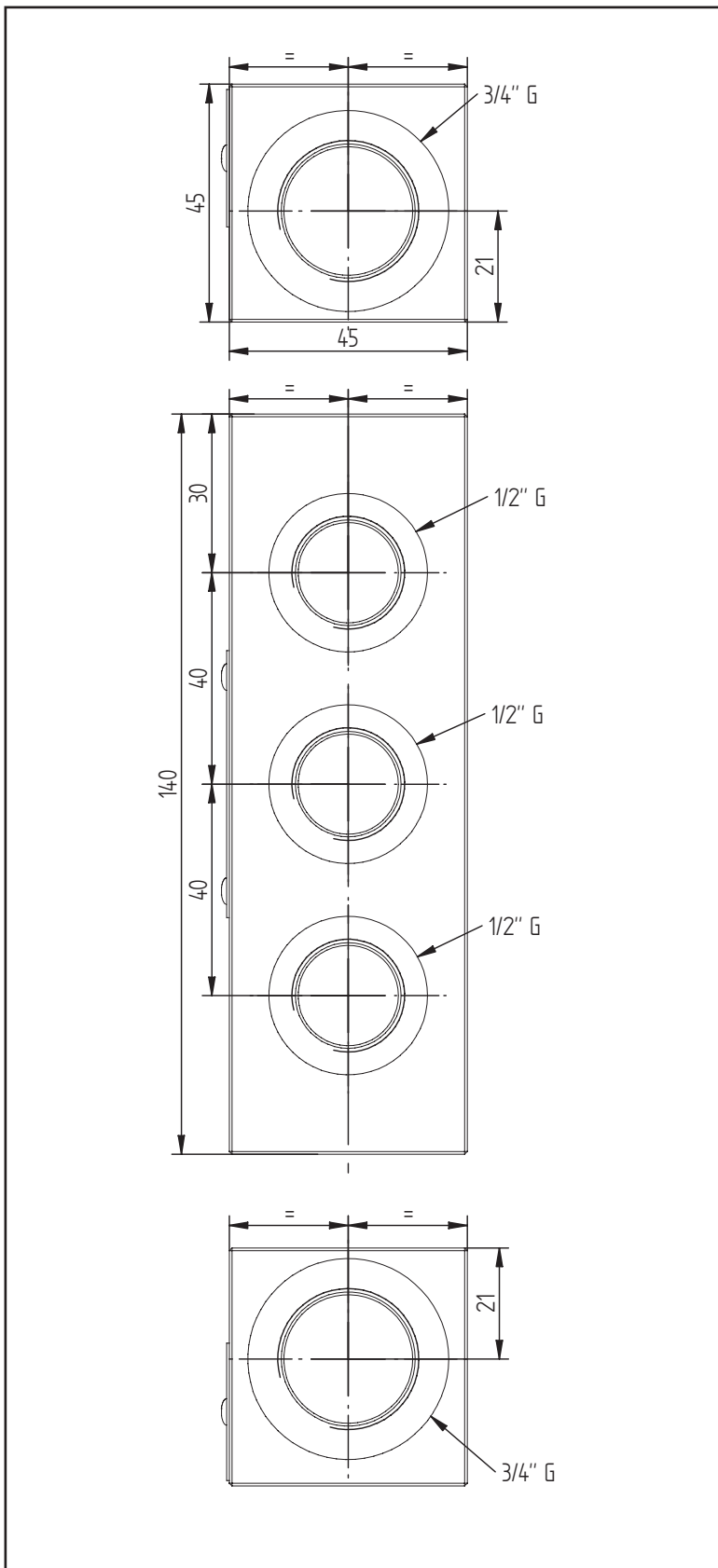
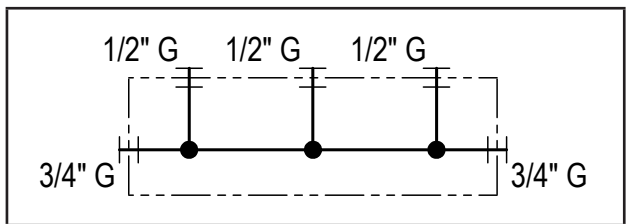
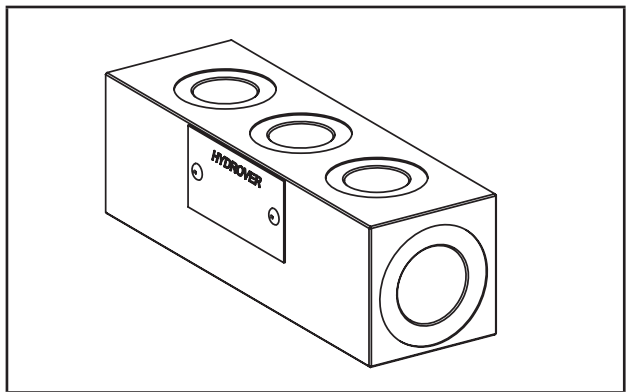
Serie 16 - Manifolds

Manifold material

Aluminium

Product ID

Technical data	
Max. pressure	210 bar
Weight	0,6 Kg
Manifold material	Aluminium
Lateral ports	3/4" G
Top ports	1/2" G



H1602

Ordering code

H	1	6	0	2	A
---	---	---	---	---	---

Hydrover product

Product series

Serie 16 - Manifolds

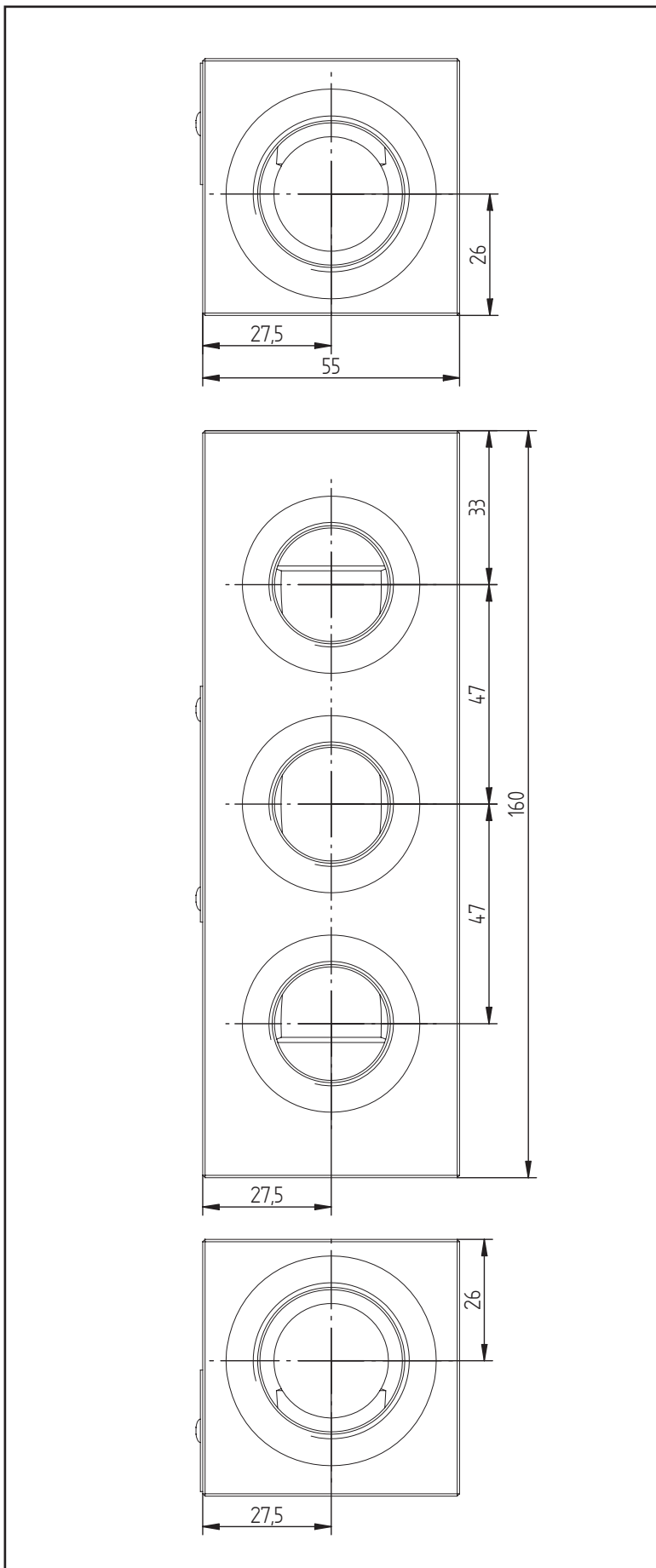
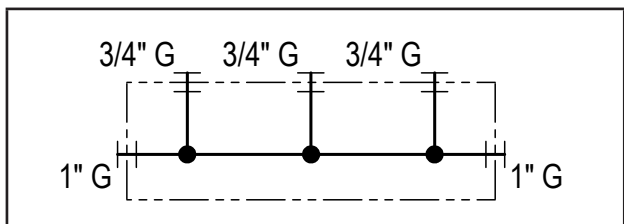
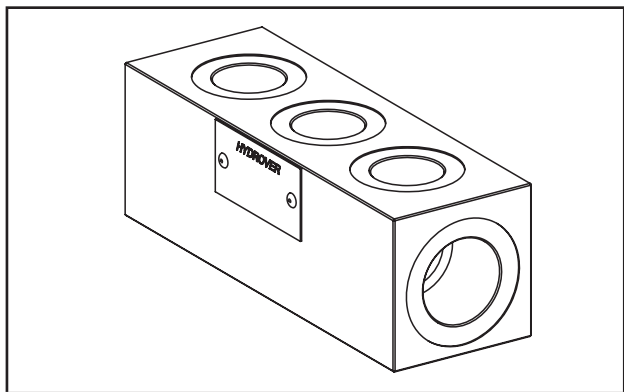
Manifold material

Aluminium

Product ID

Multi ports manifold / 2 ports 1" G / 3 ports 3/4" G **H1603**

Technical data	
Max. pressure	210 bar
Weight	1,1 Kg
Manifold material	Aluminium
Lateral ports	1" G
Top ports	3/4" G



Dimensions in mm

H1603

Ordering code

H	1	6	0	3	A
---	---	---	---	---	---

Hydrover product

Product series

Serie 16 - Manifolds

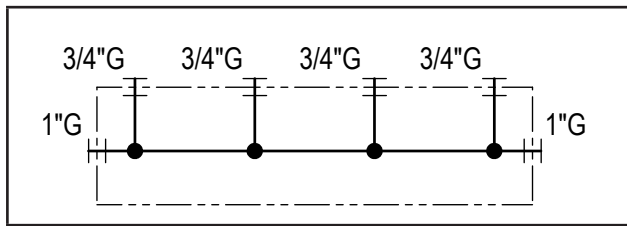
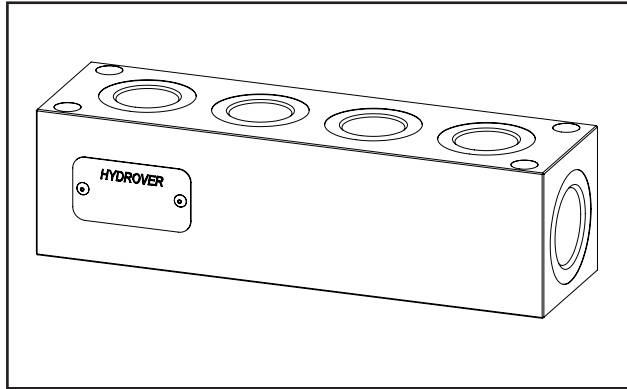
Manifold material

Aluminium

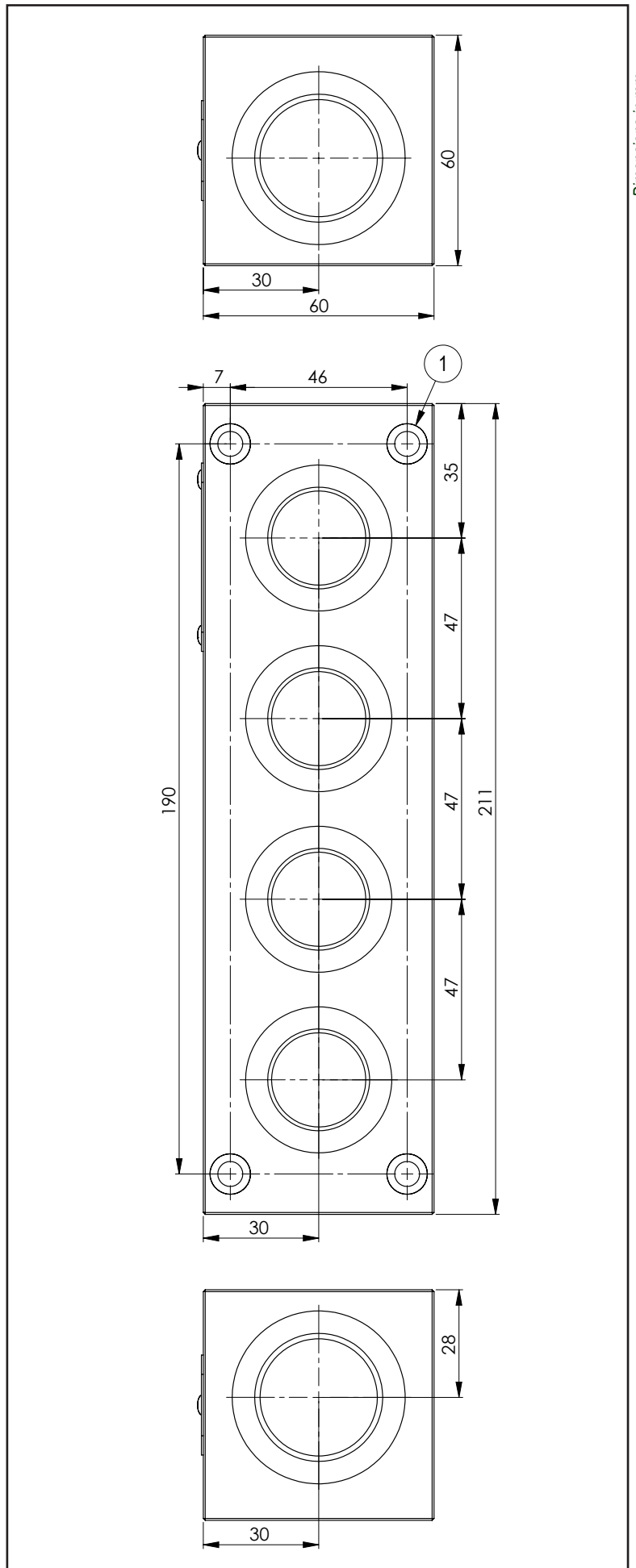
Product ID

Multi ports manifold / 2 ports 1" G / 4 ports 3/4" G **H1609**

Technical data	
Max. pressure	210 bar
Weight	1,6 Kg
Manifold material	Aluminium
Lateral ports	1" G
Top ports	3/4" G



N°	Description	Q.ty
1	Ø 6,5 through hole for mounting with counterbore	2



Dimensions in mm

H1609

Ordering code

H	1	6	0	9	A
---	---	---	---	---	---

Hydrover product

Product series

Serie 16 - Manifolds

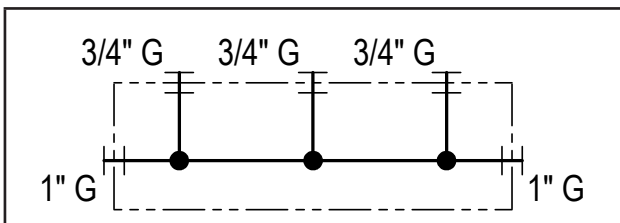
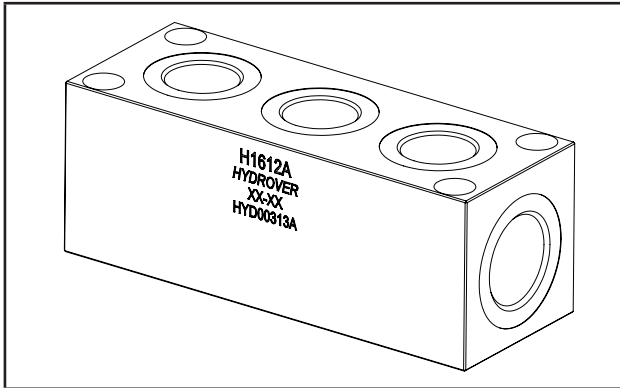
Manifold material

Aluminium

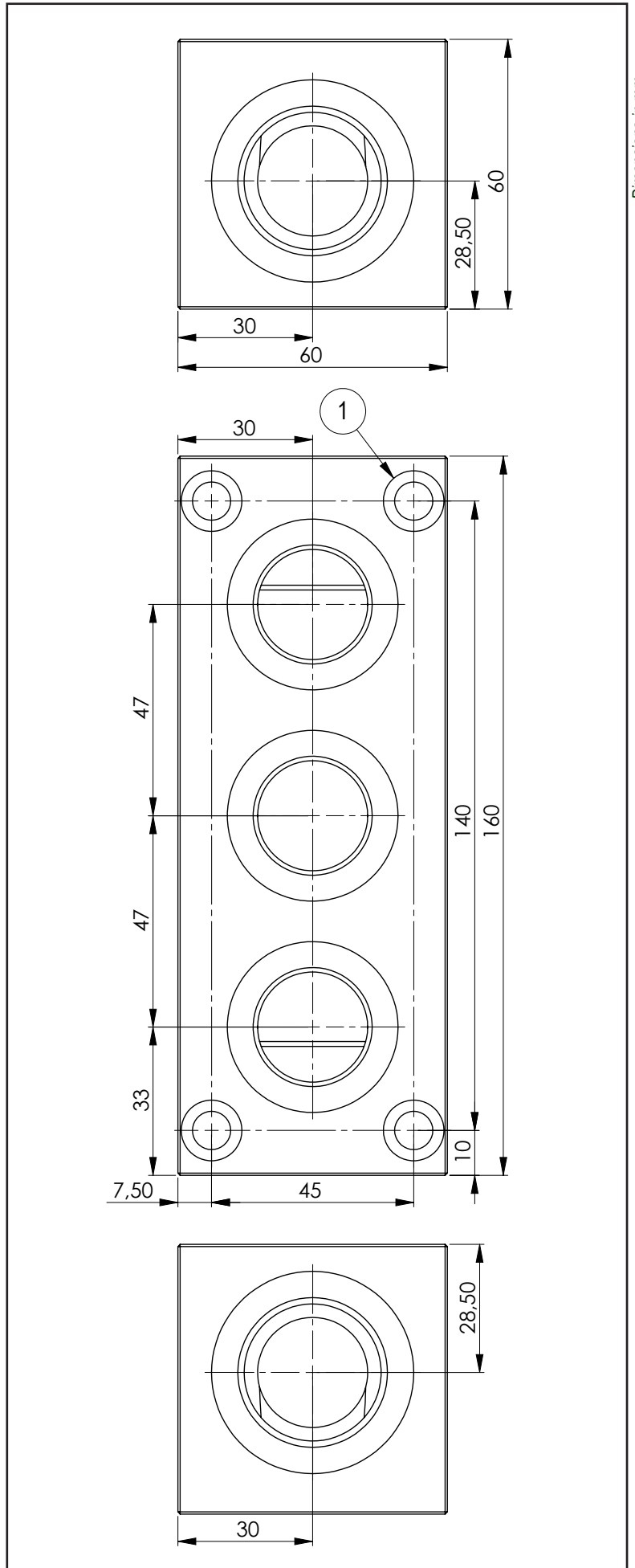
Product ID

Multi ports manifold - 2 ports 1" G - 3 ports 3/4" G **H1612**

Technical data	
Max. pressure	210 bar
Weight	1,25 Kg
Manifold material	Aluminium
Lateral ports	1" G
Top ports	3/4" G



N°	Description	Q.ty
1	Ø 8,5 through hole for mounting with counterbore	4



H1612

Ordering code

H	1	6	1	2	A
---	---	---	---	---	---

Hydrover product

Product series

Serie 16 - Manifolds

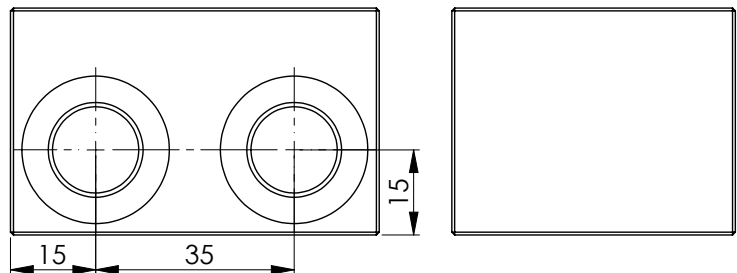
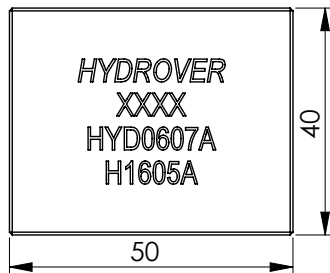
Manifold material

Aluminium

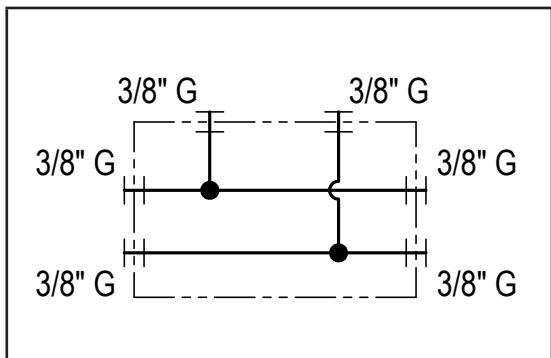
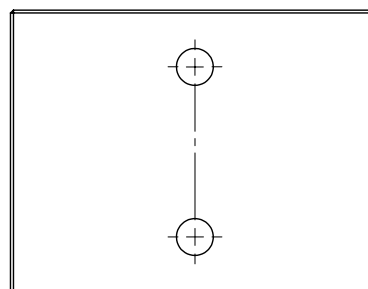
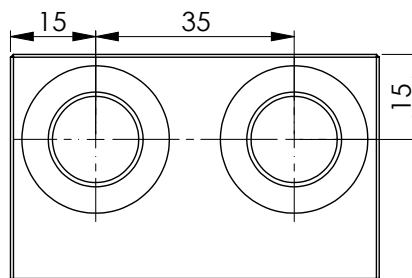
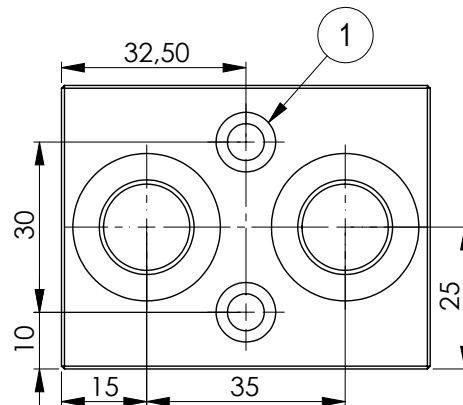
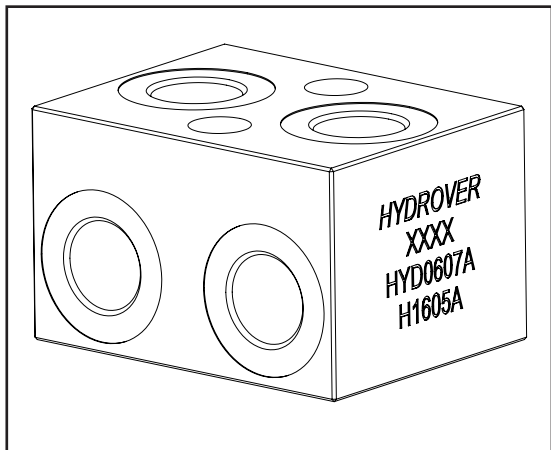
Product ID

Multi ports manifold double T 3/8" G **H1605**

Dimensions in mm



Technical data	
Max. pressure	250 bar
Weight	0,3 Kg
Manifold material	Aluminium
Ports	3/8" G



N°	Description	Q.ty
1	∅ 6,5 through hole for mounting with counterbore	2

H1605

Ordering code

H	1	6	0	5	A
---	---	---	---	---	---

Hydrover product

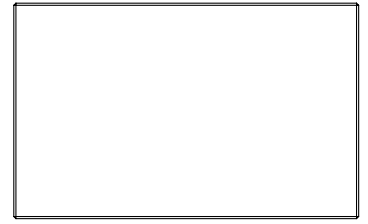
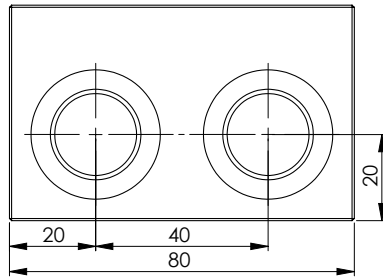
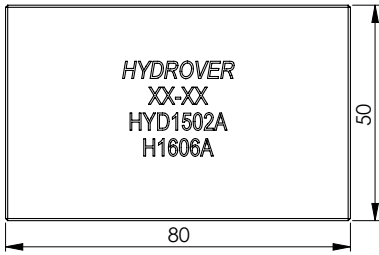
Manifold material
Aluminium

Product series
Serie 16 - Manifolds

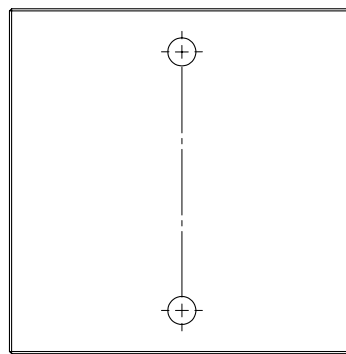
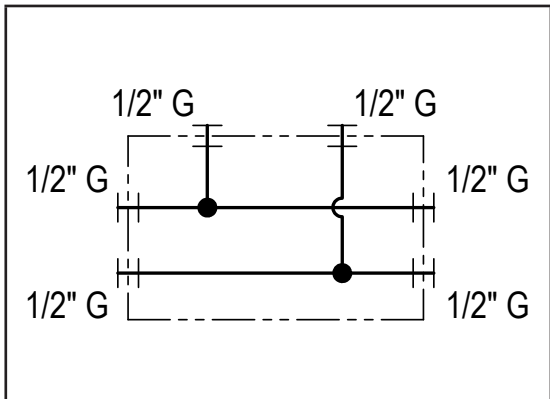
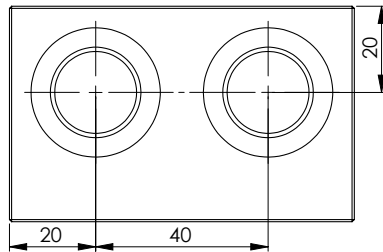
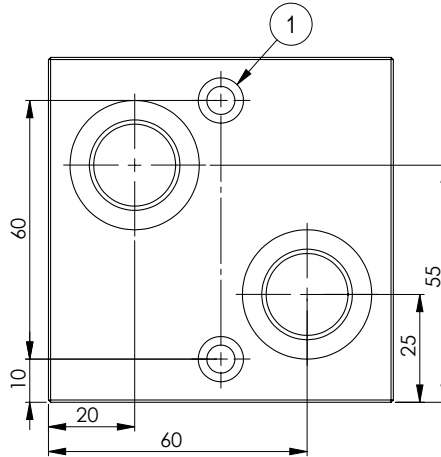
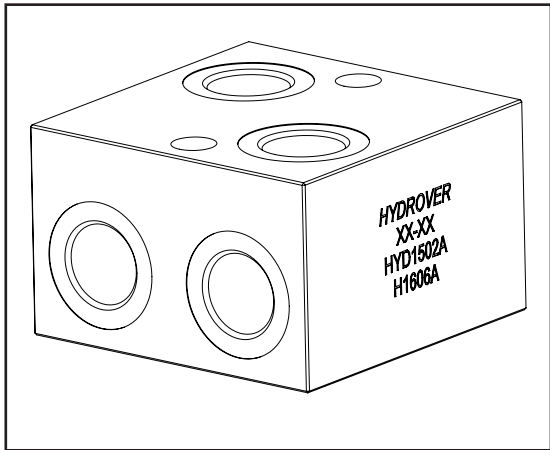
Product ID

Multi ports manifold double T 1/2" G **H1606**

Dimensions in mm



Technical data	
Max. pressure	250 bar
Weight	0,8 Kg
Manifold material	Aluminium
Ports	1/2" G



N°	Description	Q.ty
1	Ø 6,5 through hole for mounting with counterbore	2

H1606

Ordering code

H	1	6	0	6	A
---	---	---	---	---	---

Hydrover product

Product series

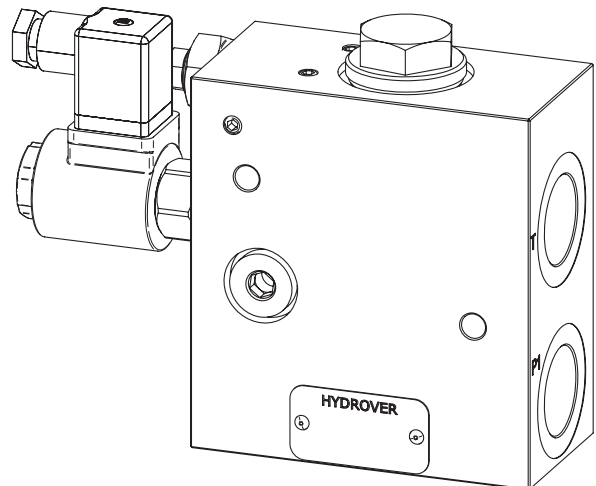
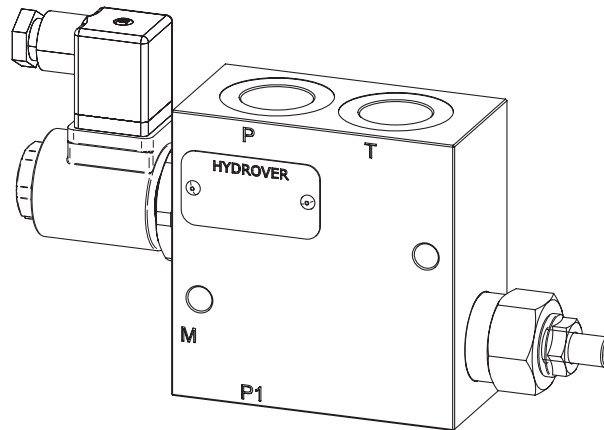
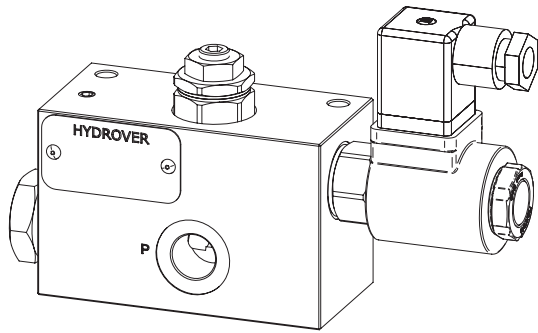
Serie 16 - Manifolds

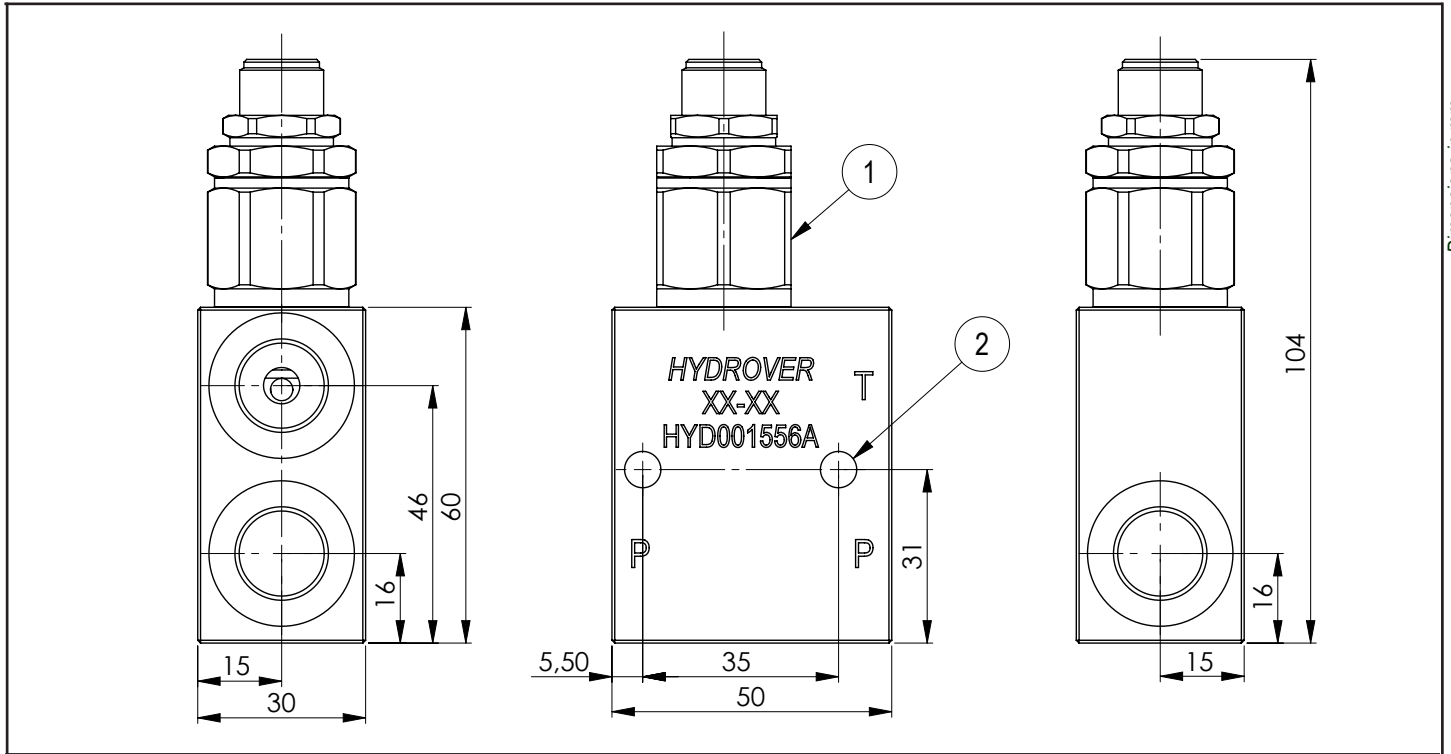
Manifold material

Aluminium

Product ID

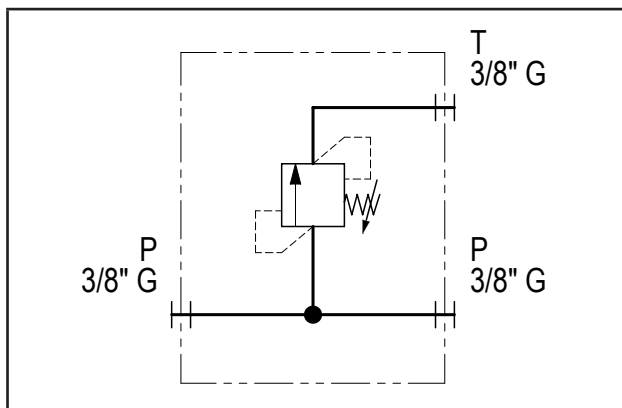
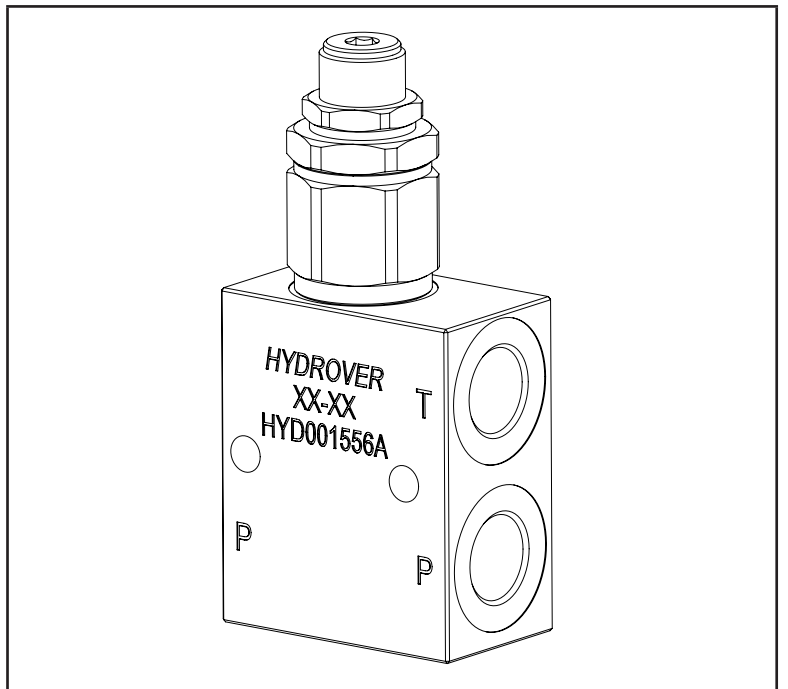
17 SERIES Inline valves





Dimensions in mm

Technical data	
Max. pressure	250 bar
Max. flow	25 lpm *
Weight	0,4 Kg
Manifold material	Aluminium
P / T ports	3/8" G



N°	Description	Q.ty
1	Bosch Rexroth relief valve VMD1.025 *	1
2	Ø 6,5 through hole for mounting	2

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue

Ordering code

H	1	7	0	5	3	A	-	_	_
---	---	---	---	---	---	---	---	---	---

Hydrover product

Product series

17 series - Inline valves

Product ID

Manifold material

Aluminium

Relief valve pressure range *

25-120 bar

40-200 bar

200-350 bar

Relief valve adjustment type *

Screw

1 =

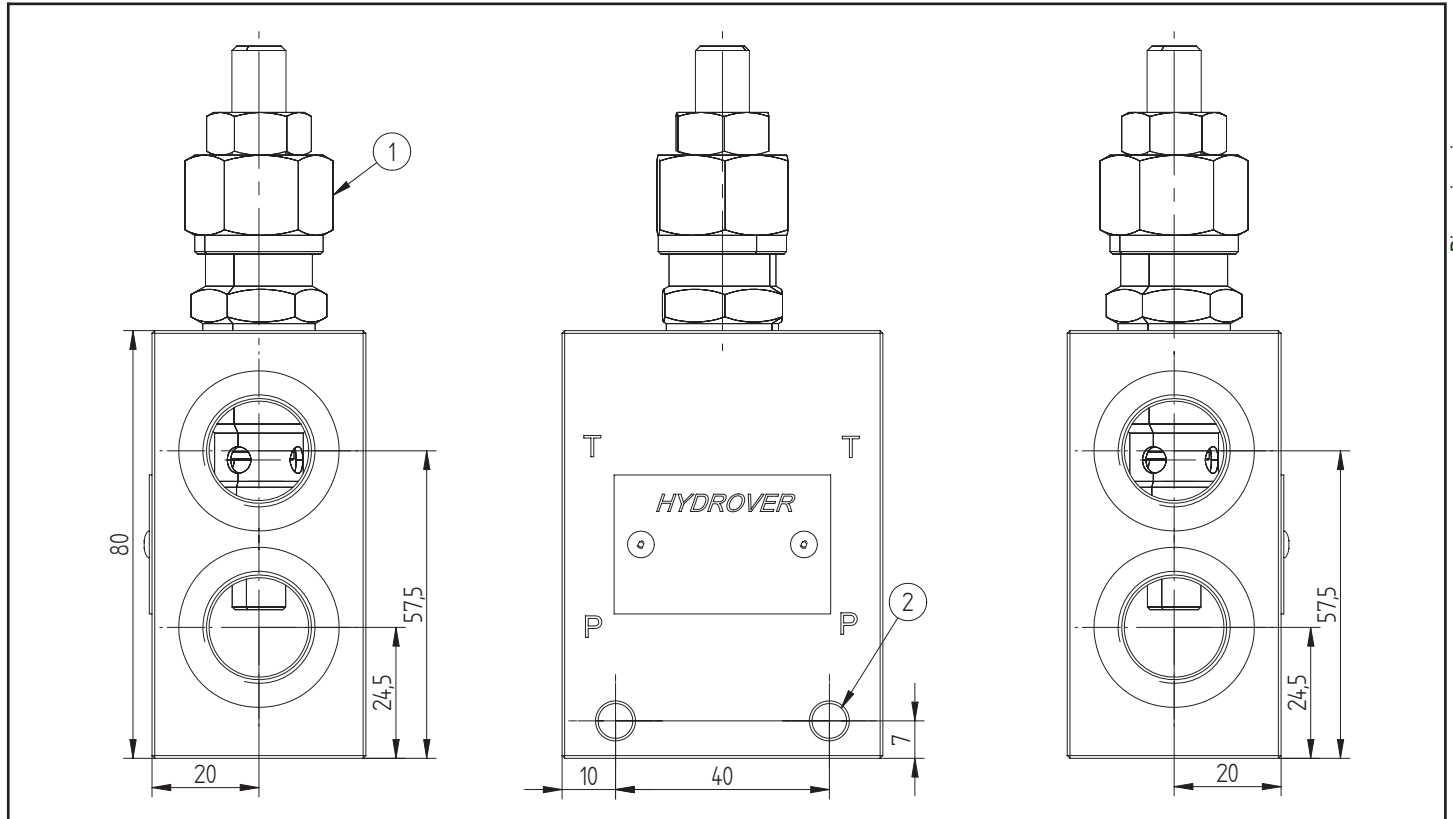
2 =

3 =

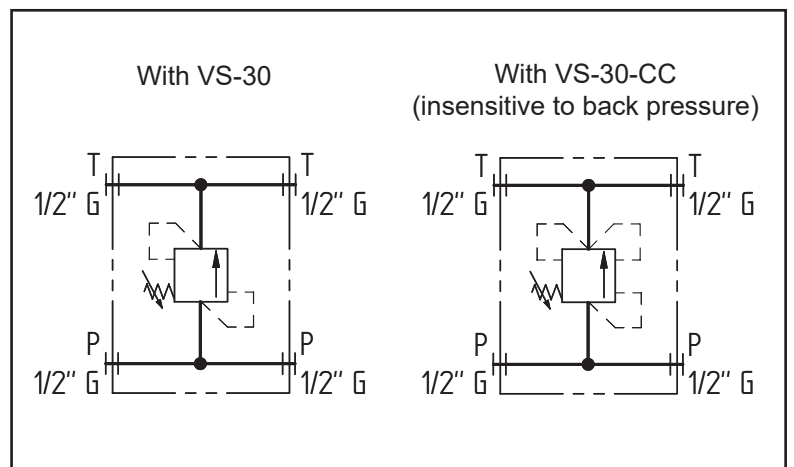
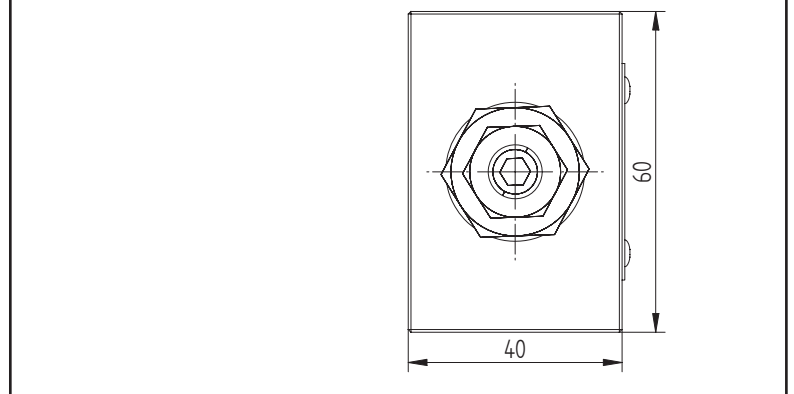
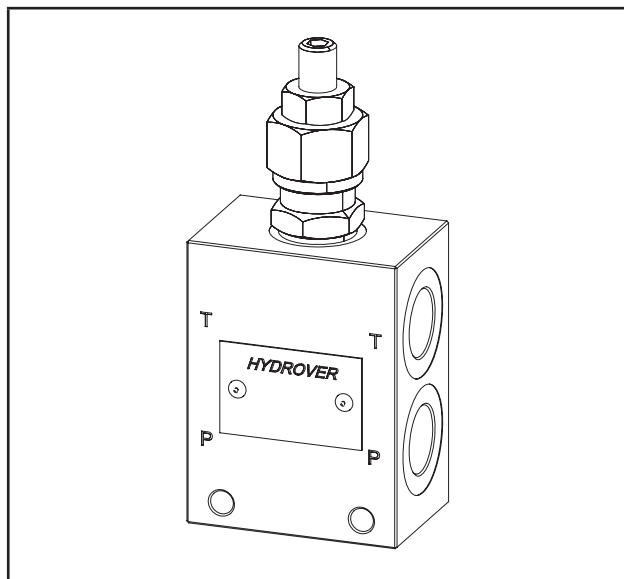
S =

* Omit if not required. To order the product without the pressure relief cartridge valve, omit the pressure range and the adjustment type options: H17053A.
The manifold will still be provided with the corresponding cavity.

Dimensions in mm



Technical data	
Max. pressure	250 bar
Max. flow	30 lpm *
Weight	0,6 Kg
Manifold material	Aluminium
P / T ports	1/2" G



N°	Description	Q.ty
1	Bosch Rexroth relief valve VS-30 (as depicted) or VS-30-CC *	1
2	Ø 6,5 through hole for mounting	2

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue

Ordering code

H	1	7	0	2	1	A	-	-	-
---	---	---	---	---	---	---	---	---	---

Hydrover product

Product series

17 series - Inline valves

Product ID

Manifold material

Aluminium

Relief valve type *

M = VS-30
S = VS-30-CC

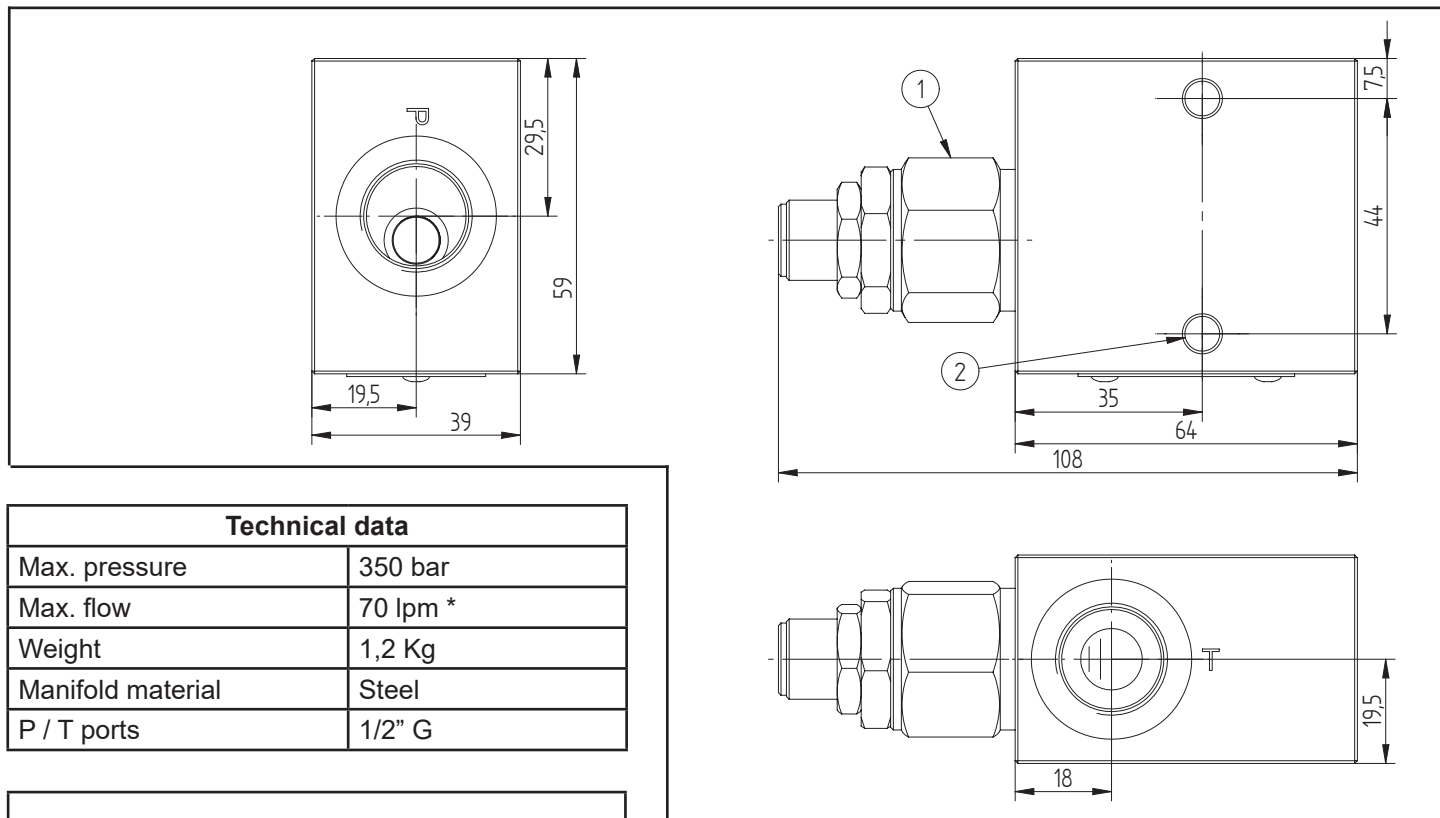
Relief valve adjustment pressure range *

0 = 5-50 bar
1 = 30-100 bar
2 = 50-210 bar
3 = 100-350 bar

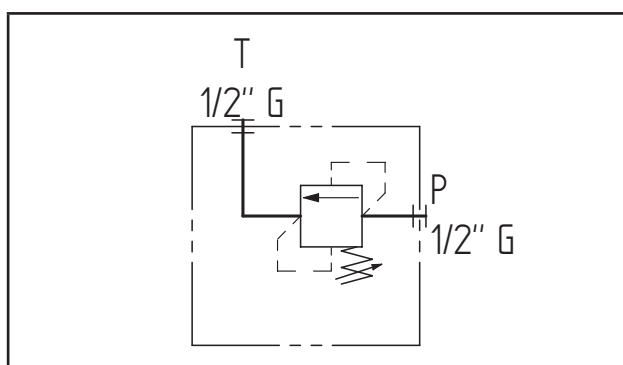
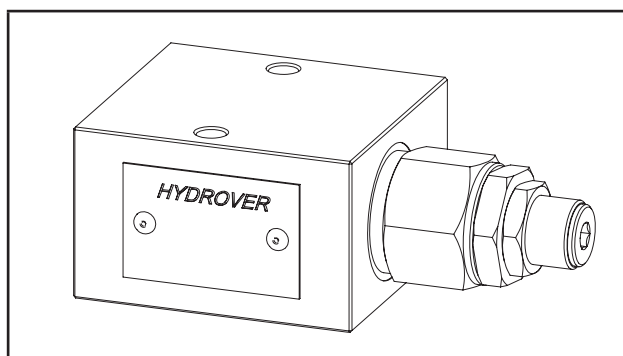
Relief valve adjustment type *

S = Screw
K = Knob (only for VS-30)

* Omit if not required. To order the product without the pressure relief cartridge valve, omit the relief valve type, adjustment pressure range and the adjustment type options: H17021A.
The manifold will still be provided with the corresponding cavity.



Technical data	
Max. pressure	350 bar
Max. flow	70 lpm *
Weight	1,2 Kg
Manifold material	Steel
P / T ports	1/2" G



N°	Description	Q.ty
1	Bosch Rexroth relief valve VMD1.070 *	1
2	Ø 6,5 through hole for mounting	2

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue

Ordering code

H	1	7	0	1	8	S	-	_	_
---	---	---	---	---	---	---	---	---	---

Hydrover product

Product series

17 series - Inline valves

Product ID

Manifold material

Steel

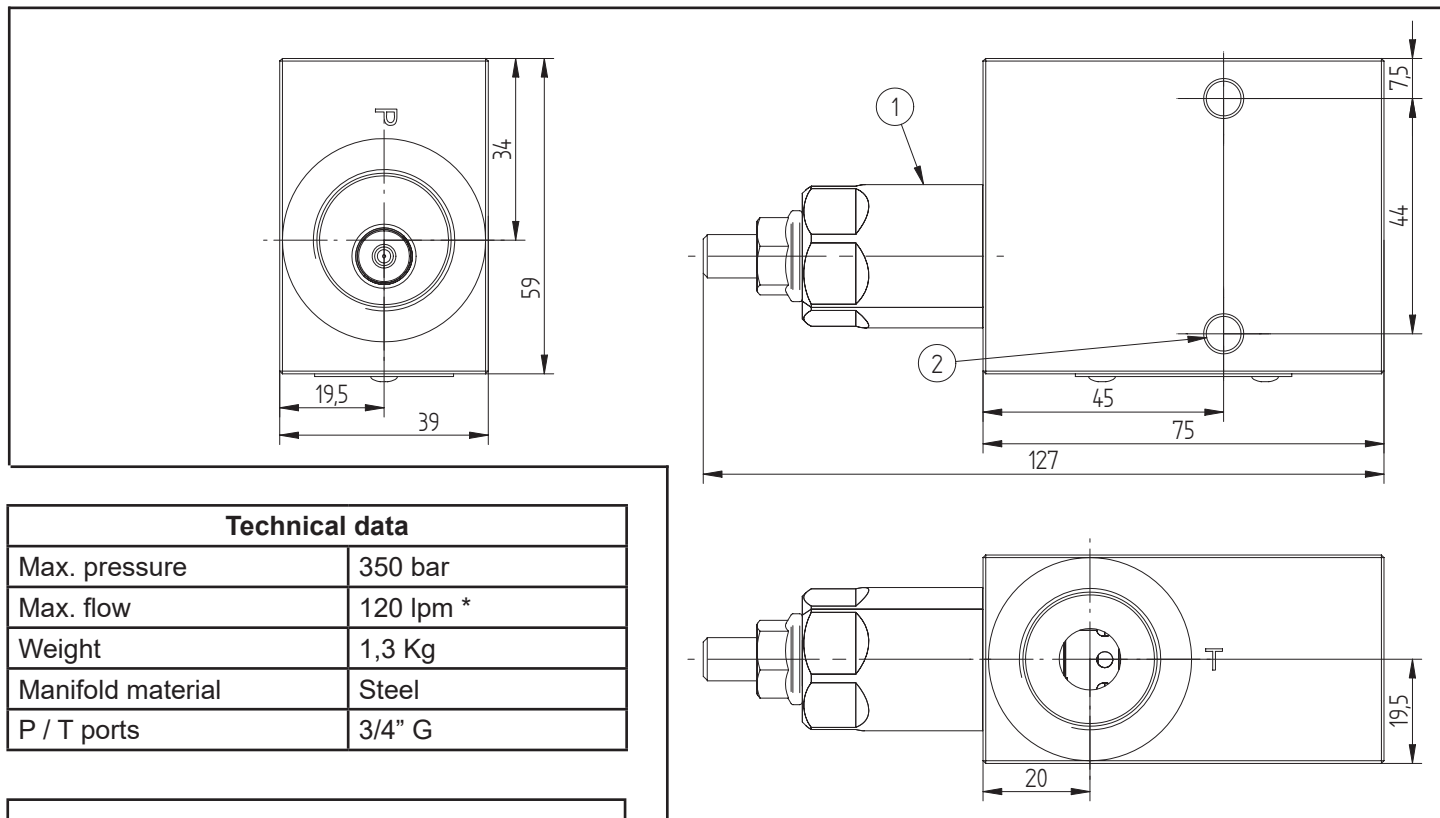
Relief valve adjustment pressure range *

- 0 = 10-60 bar
- 1 = 40-110 bar
- 2 = 110-220 bar
- 3 = 220-260 bar

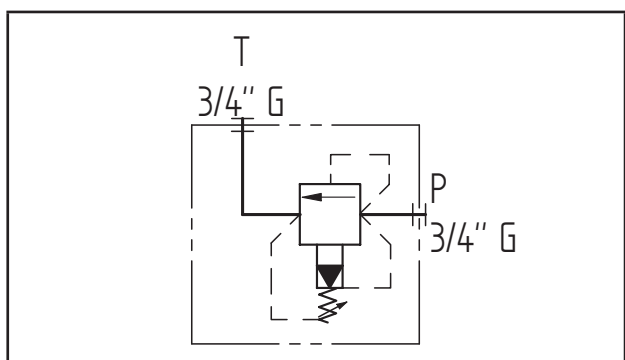
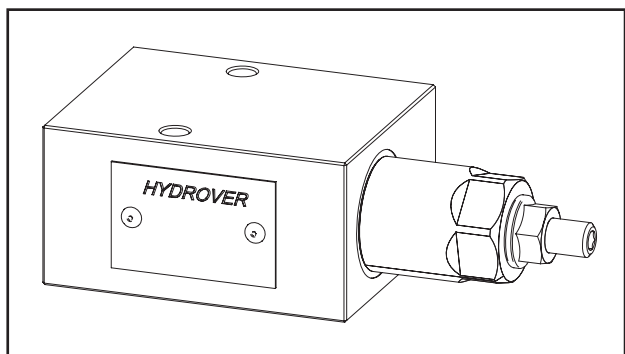
Relief valve adjustment type *

S = Screw

* Omit if not required. To order the product without the pressure relief cartridge valve, omit the pressure range and the adjustment type options: H17018S.
The manifold will still be provided with the corresponding cavity.



Technical data	
Max. pressure	350 bar
Max. flow	120 lpm *
Weight	1,3 Kg
Manifold material	Steel
P / T ports	3/4" G



N°	Description	Q.ty
1	Bosch Rexroth relief valve VSPN-10A depicted with screw adjustment *	1
2	Ø 6,5 through hole for mounting	2

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue

Ordering code

H	1	7	0	1	9	S	-	_	_
---	---	---	---	---	---	---	---	---	---

Hydrover product

Product series

17 series - Inline valves

Product ID

Manifold material

Steel

Relief valve adjustment pressure range *

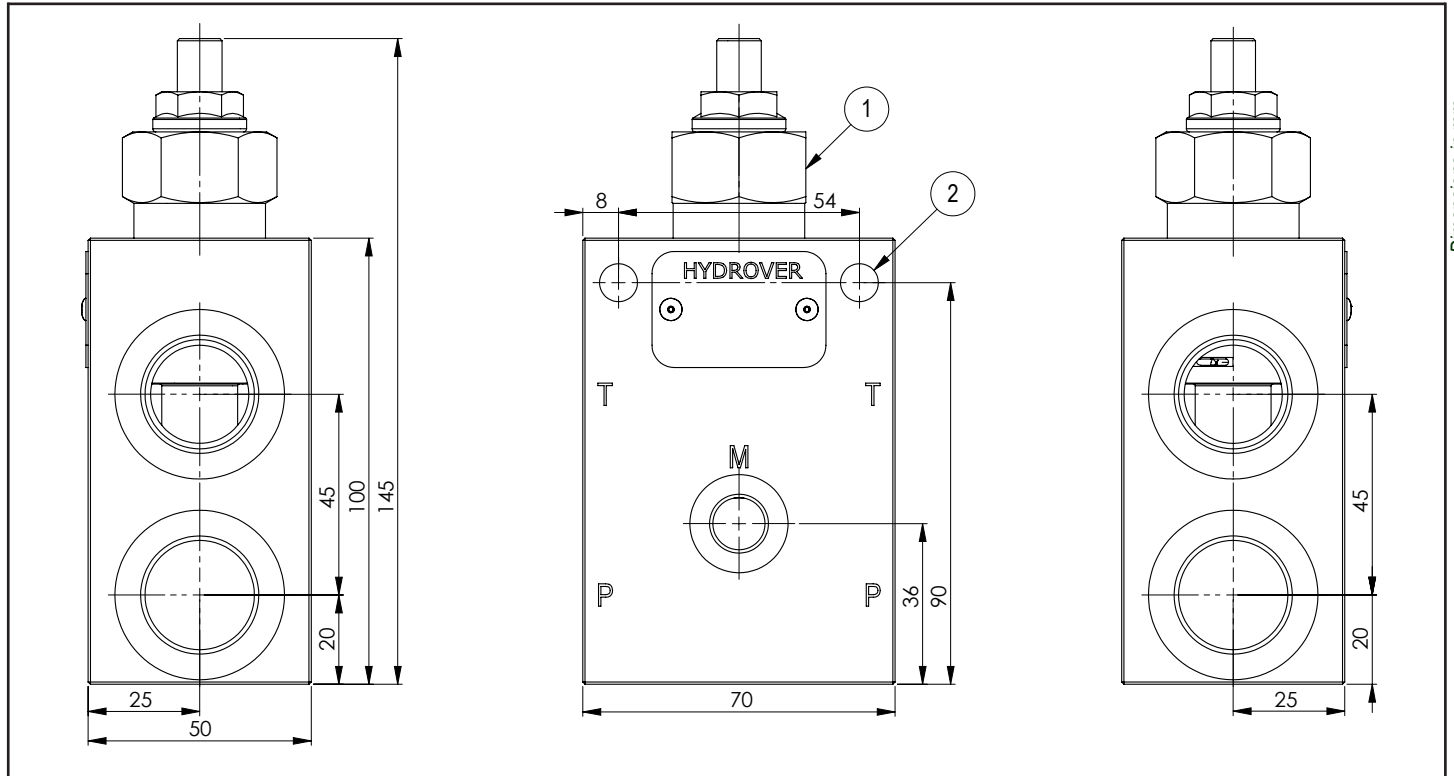
- 1 = 35-140 bar
- 2 = 70-280 bar
- 3 = 140-420 bar
- 3 = 35-350 bar (adj. knob)

Relief valve adjustment type *

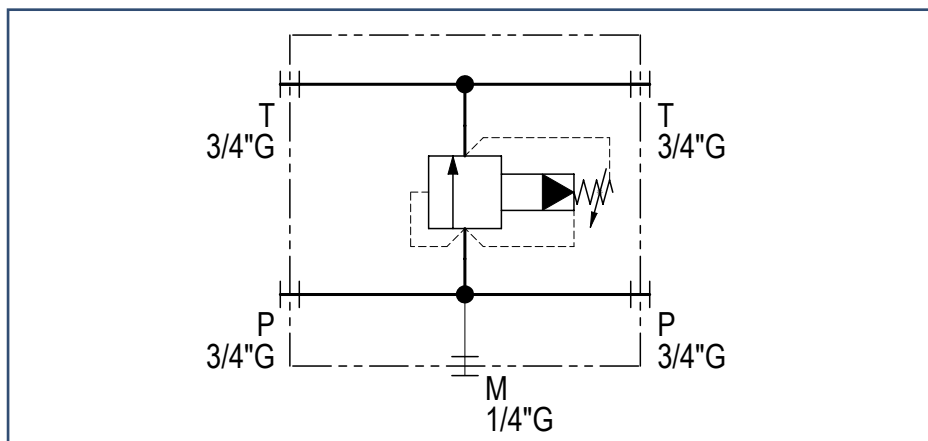
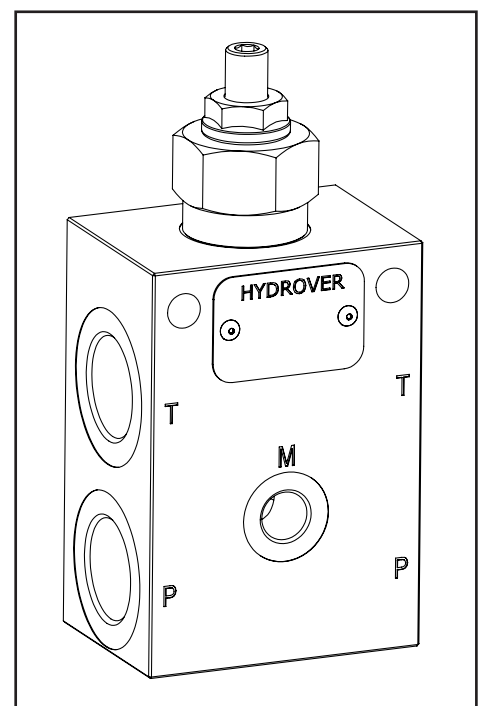
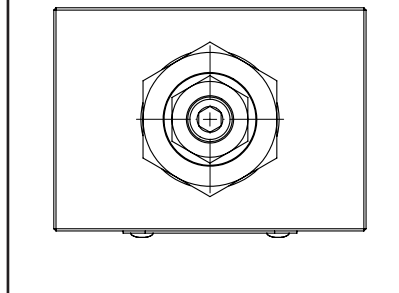
- S = Screw
- K = Knob

* Omit if not required. To order the product without the pressure relief cartridge valve, omit the pressure range and the adjustment type options: H17019S.
The manifold will still be provided with the corresponding cavity.

Dimensions in mm



Technical data	
Max. pressure	250 bar
Max. flow	150 lpm *
Weight	1 Kg
Manifold material	Aluminium
M port	1/4" G
P / T ports	3/4" G



N°	Description	Q.ty
1	Bosch Rexroth relief valve VSP-150 depicted with screw adjustment *	1
2	Ø 8,5 through hole for mounting	2

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue

Ordering code

H	1	7	1	2	5	A	-	_	_
---	---	---	---	---	---	---	---	---	---

Hydrover product

Product series

17 series - Inline valves

Product ID

Manifold material

Aluminium

Relief valve adjustment pressure range *

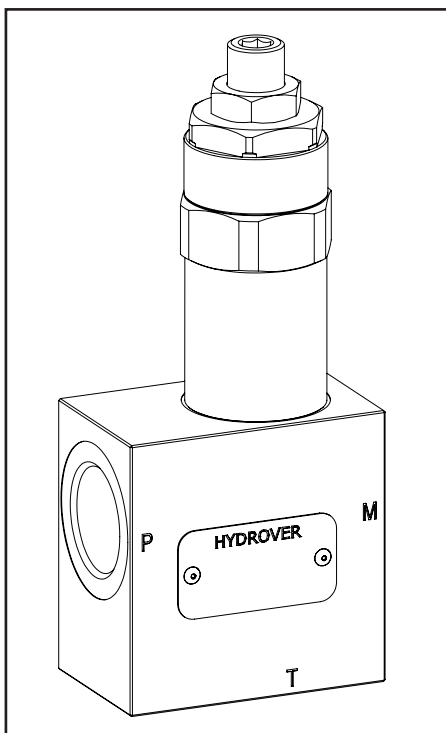
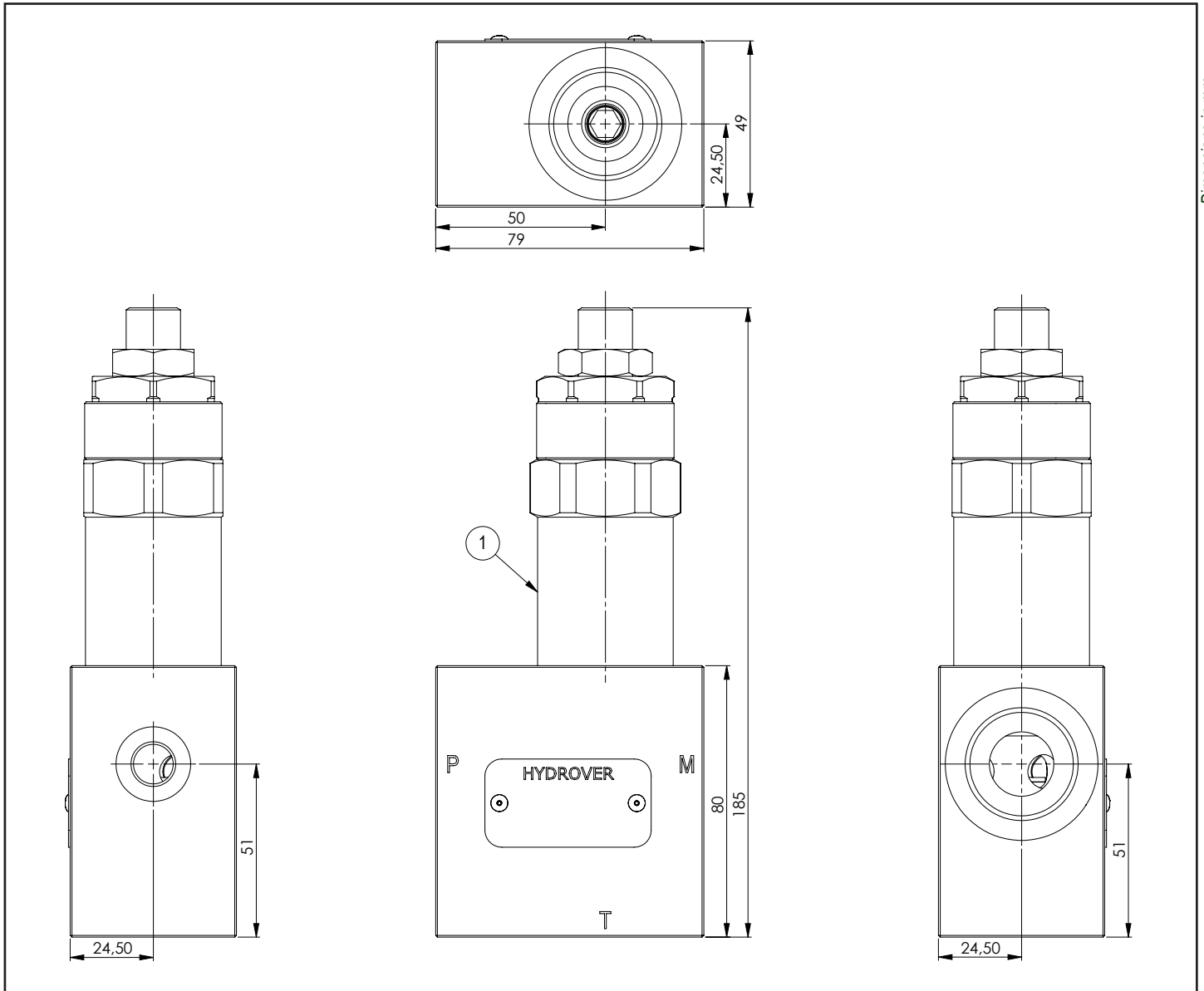
0 =	3-70 bar
1 =	7-105 bar
2 =	10-210 bar
3 =	35-420 bar

Relief valve adjustment type *

S =	Screw
K =	Knob

* Omit if not required. To order the product without the pressure relief cartridge valve, omit the pressure range and the adjustment type options: H17125A.
The manifold will still be provided with the corresponding cavity.

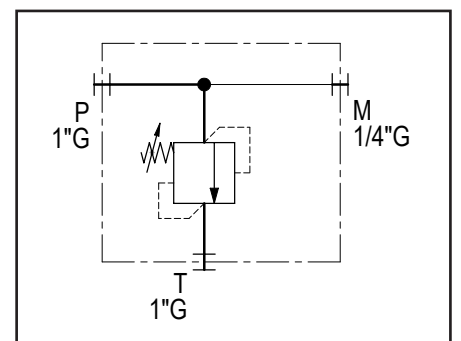
Dimensions in mm



Technical data	
Max. pressure	350 bar
Max. flow	240 lpm *
Weight	2,75 Kg
Manifold material	Steel
P / T ports	1" G
M port	1/4" G

N°	Descrizione	Q.tà
1	Bosch Rexroth relief valve VSD-250	1

* for complete technical information, click on the blue link



Ordering code

H	1	7	0	8	9	S	-	_	_
---	---	---	---	---	---	---	---	---	---

Hydrover product

Product series

17 series - Inline valves

Product ID

Manifold material

Steel

Relief valve adjustment pressure range *

3 =

120-350 bar

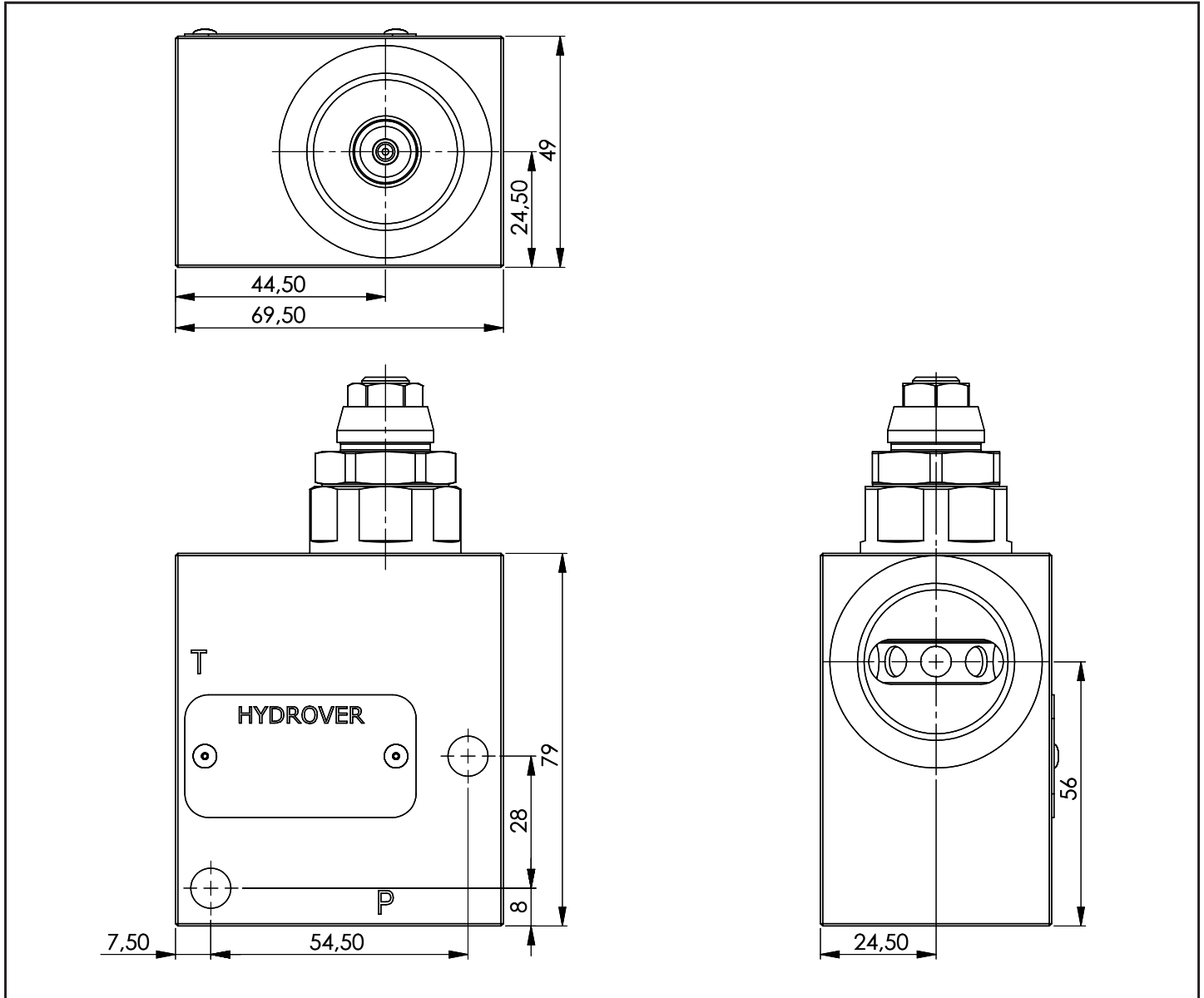
Relief valve adjustment type *

S =

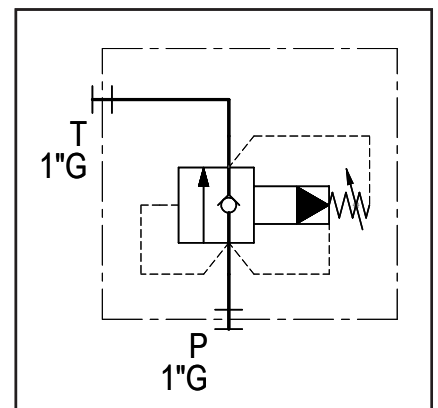
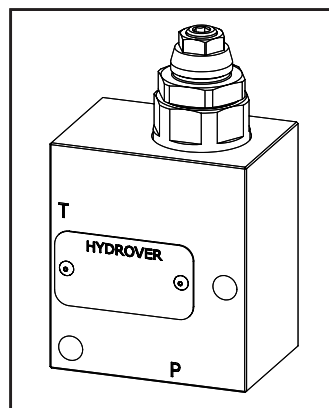
Screw

* Omit if not required. To order the product without the pressure relief cartridge valve, omit the pressure range and the adjustment type options: H17089S.
The manifold will still be provided with the corresponding cavity.

Dimensions in mm



Technical data	
Max. pressure	350 bar
Max. flow	200 lt/1 *
Weight	1,8 Kg
Manifold material	Steel
P / T ports	1" G



N°	Description	Q.ty
1	Bosch Rexroth relief valve and anti-cavitation VMR2.240.NG.320 100-420 bar (similar to the VMR2.240.NG.000 but with NBR seals and zinc plated body)*	1
2	Ø 8,5 through hole for mounting	2

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue

H17119

Ordering code

H	1	7	1	1	9	S
---	---	---	---	---	---	---

Hydrover product

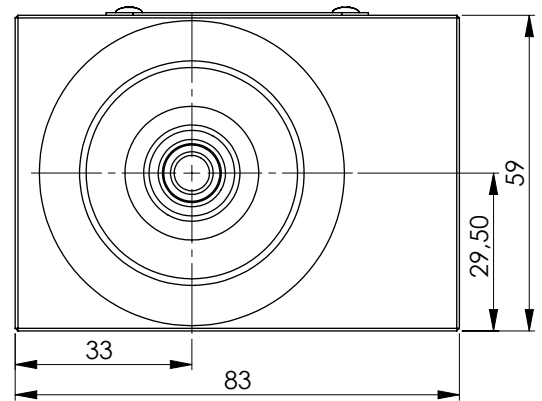
Manifold material
Steel

Product series
17 series - Inline valves

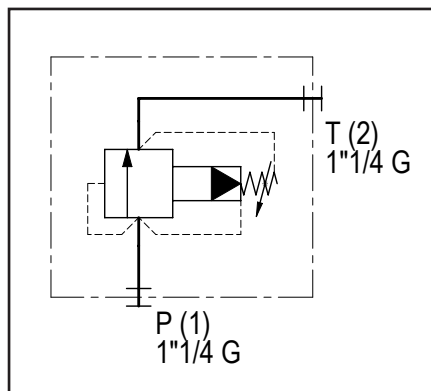
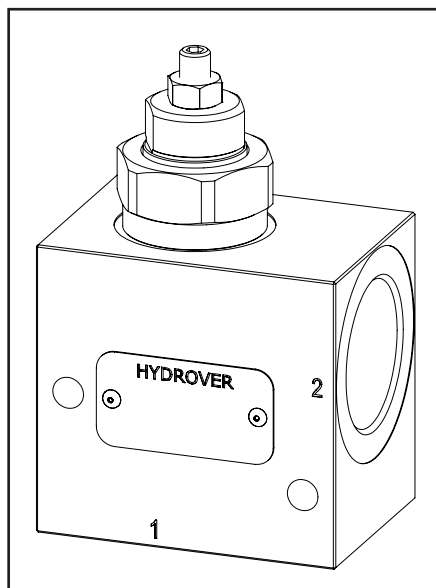
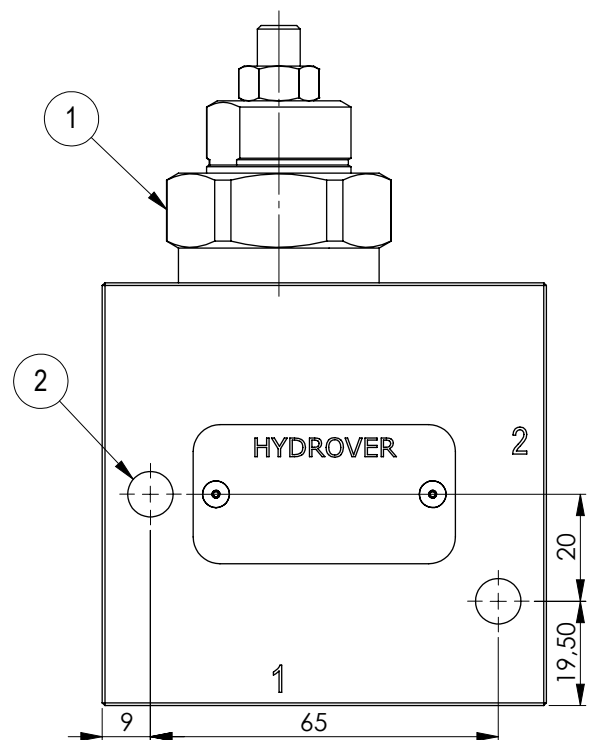
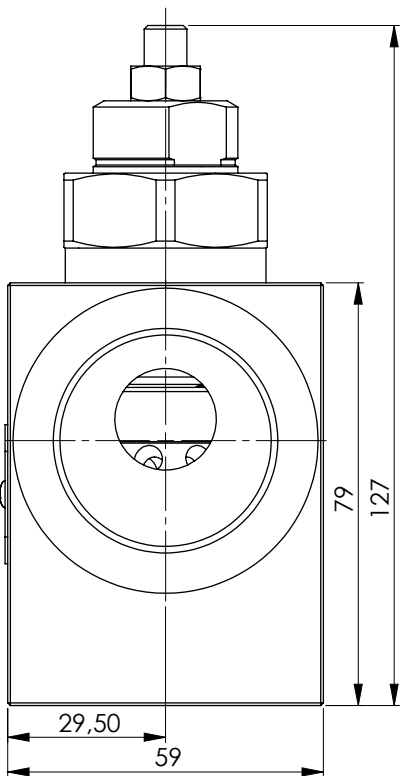
Product ID

Technical data

Max. pressure	350 bar
Max. flow	250 lpm *
Weight	2,6 Kg
Manifold material	Steel
P (1) / T (2) ports	1"1/4 G



Dimensions in mm



N°	Description	Q.ty
1	Bosch Rexroth relief valve VSPN-16A depicted with screw adjustment *	1
2	Ø 8,5 through hole for mounting	2

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue

Ordering code

H	1	7	1	0	7	S	-	_	_
---	---	---	---	---	---	---	---	---	---

Hydrover product

Product series

17 series - Inline valves

Product ID

Manifold material

Steel

Relief valve adjustment pressure range *

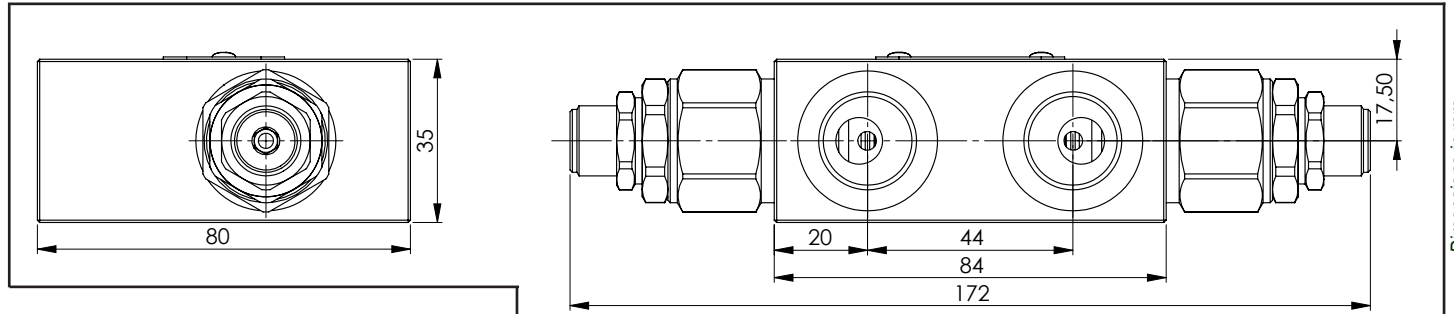
- 1 = 35-140 bar
- 2 = 70-280 bar
- 3 = 140-420 bar
- 3 = 35-350 bar (adj. knob)

Relief valve adjustment type *

- S = Screw
- K = Knob

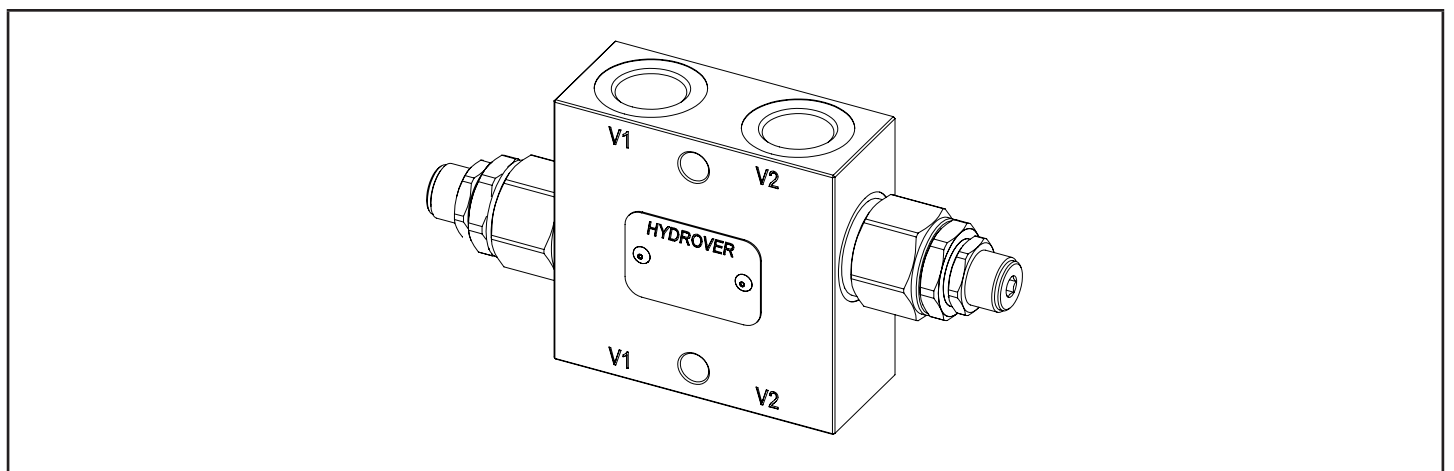
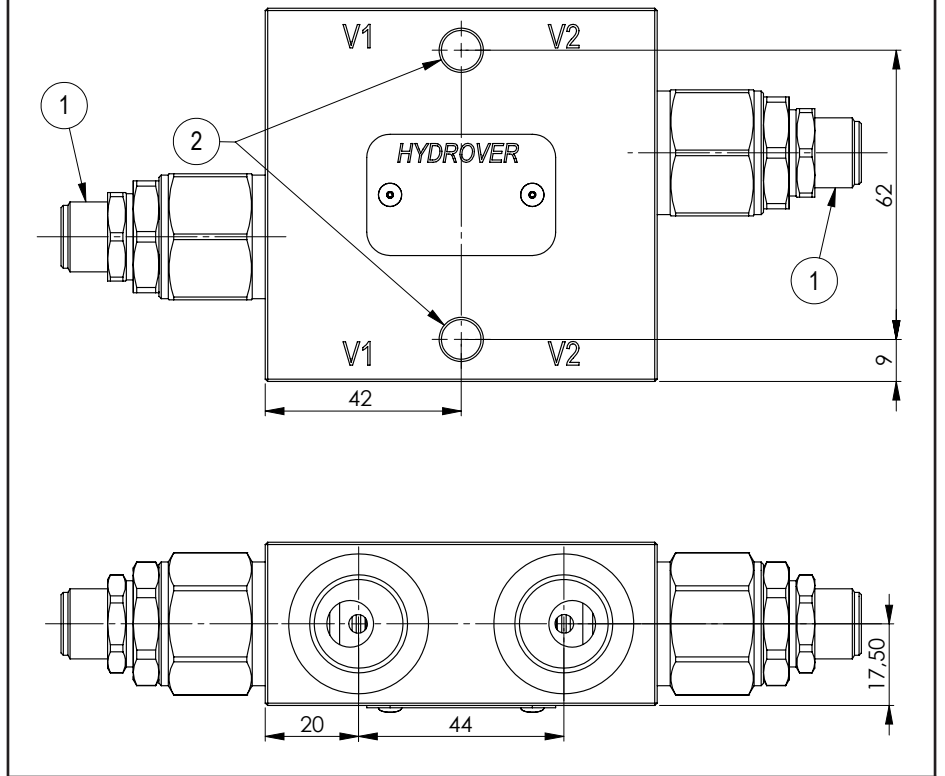
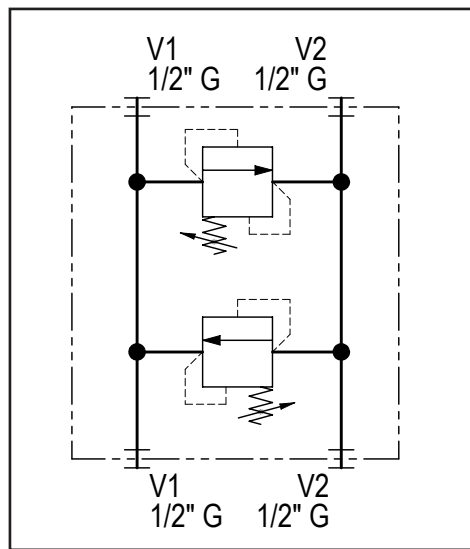
* Omit if not required. To order the product without the pressure relief cartridge valve, omit the pressure range and the adjustment type options: H17107S.
The manifold will still be provided with the corresponding cavity.

Inline relief valve double effect crossing V1 V2 ports 1/2" G / 40 lpm **H17063**



Dimensions in mm

Technical data	
Max. pressure	250 bar
Max. flow	40 lt/1 *
Weight	0,9 Kg
Manifold material	Aluminium
V1 / V2 ports	1/2" G



N°	Description	Q.ty
1	Bosch Rexroth relief valve VMD1.040 *	2
2	Ø 8,5 through hole for mounting	2

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue

Ordering code

H	1	7	0	6	3	A	-	-	-	-
---	---	---	---	---	---	---	---	---	---	---

Hydrover product

Product series

17 series - Inline valves

Product ID

Manifold material

Aluminium

Relief valve adjustment type V1 *

Screw

= S

Relief valve adjustment pressure range V1 *

25-120 bar

= 1

40-200 bar

= 2

200-350 bar

= 3

Relief valve adjustment pressure range V2 *

1= 25-120 bar

2= 40-200 bar

3= 200-350 bar

Relief valve adjustment type V2 *

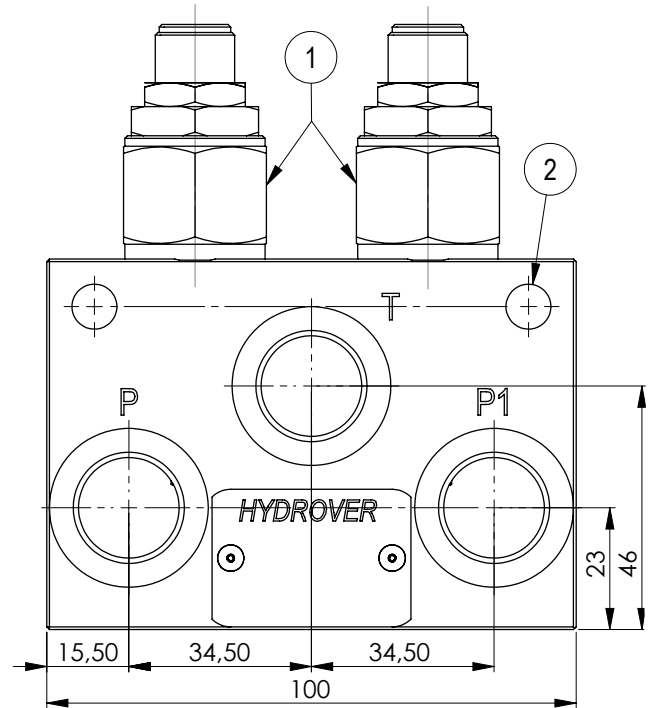
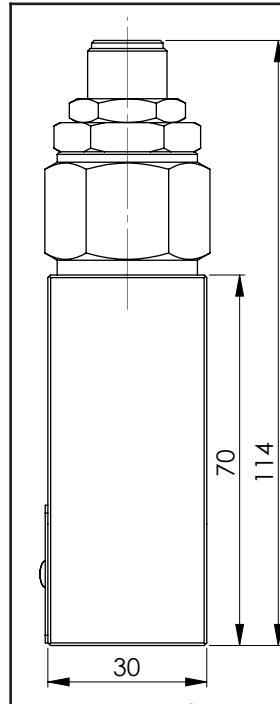
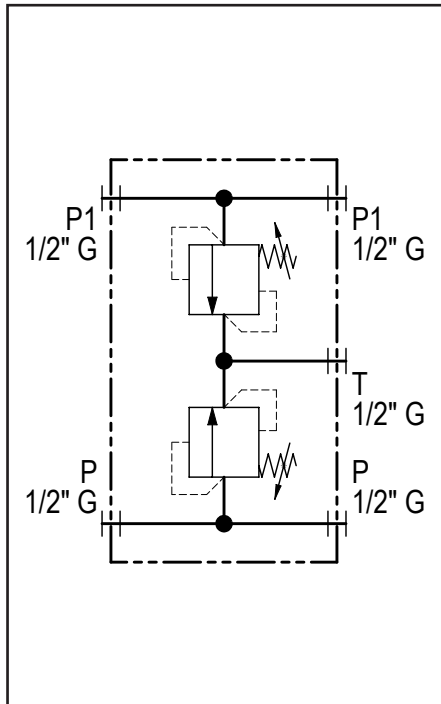
S = Screw

* Omit if not required. To order the product without the pressure relief cartridge valves, omit the pressure range and the adjustment type options: H17063A.

The manifold will still be provided with the corresponding cavities.

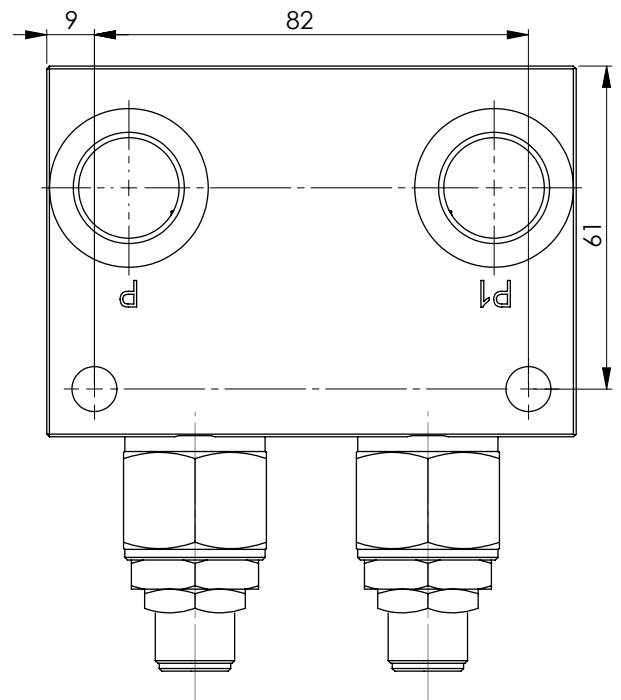
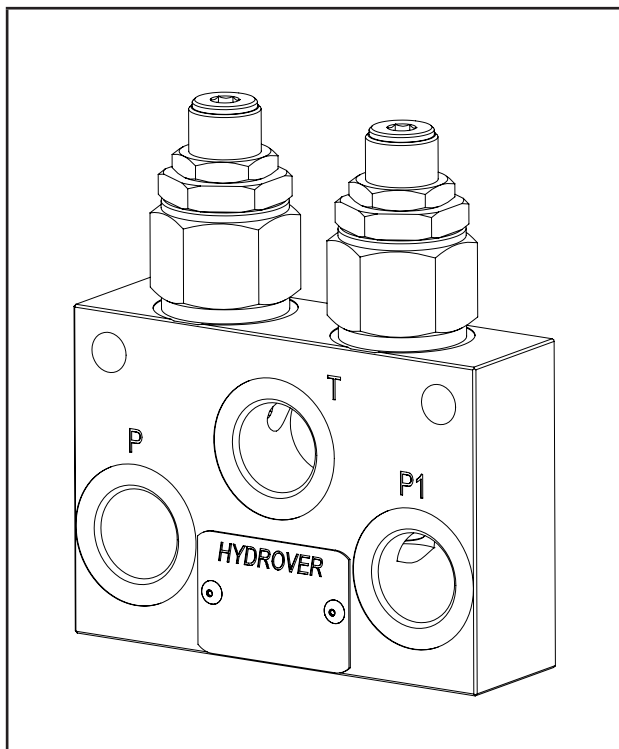
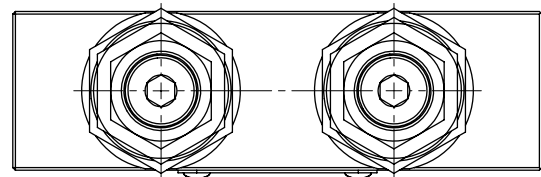
Inline relief valve double effect
crossing P-P1 ports and T port 1/2" G / 70 lpm

H17059



Dimensions in mm

Technical data	
Max. pressure	250 bar
Max. flow	70 lpm *
Weight	0,8 Kg
Manifold material	Aluminium
P / P1 / T ports	1/2" G



N°	Description	Q.ty
1	Bosch Rexroth relief valve VMD1.070 *	2
2	Ø 8,5 through hole for mounting	2

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue

Ordering code

H	1	7	0	5	9	A	-	-	-	-	-
---	---	---	---	---	---	---	---	---	---	---	---

Hydrover product

Product series

17 series - Inline valves

Product ID

Manifold material

Aluminium

Relief valve adjustment type P *

Screw

= S

Relief valve adjustment pressure range P *

10-60 bar

= 0

40-110 bar

= 1

110-220 bar

= 2

220-260 bar

= 3

Relief valve adjustment pressure range P1 *

0 = 10-60 bar

1 = 40-110 bar

2 = 110-220 bar

3 = 220-260 bar

Relief valve adjustment type P1 *

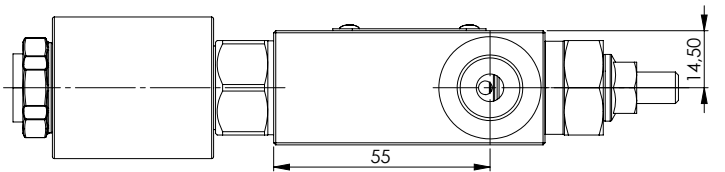
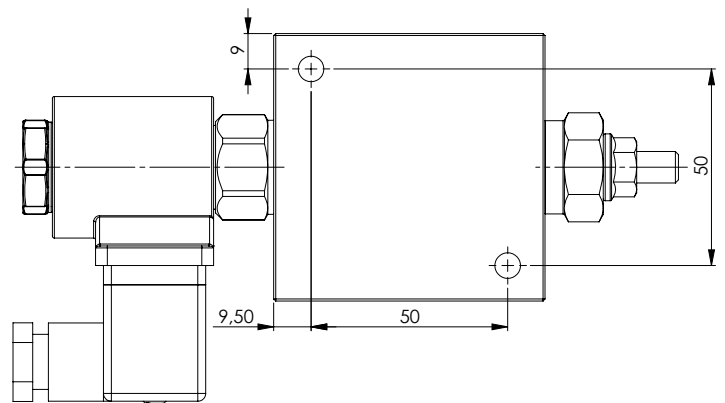
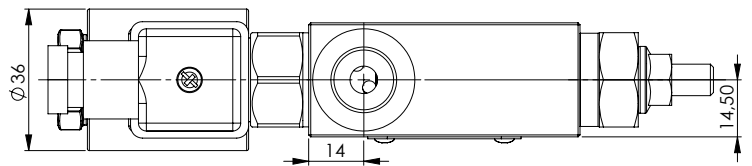
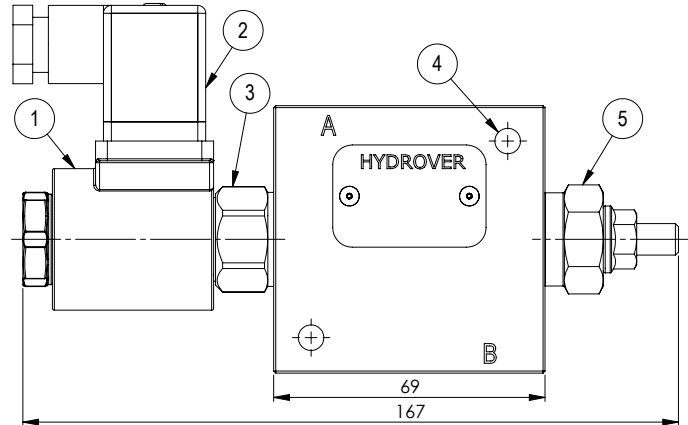
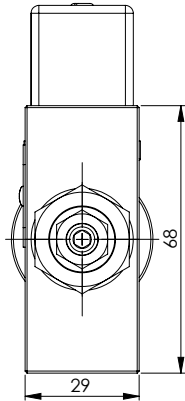
S = Screw

* Omit if not required. To order the product without the pressure relief cartridge valves, omit the pressure range and the adjustment type options: H17059A.

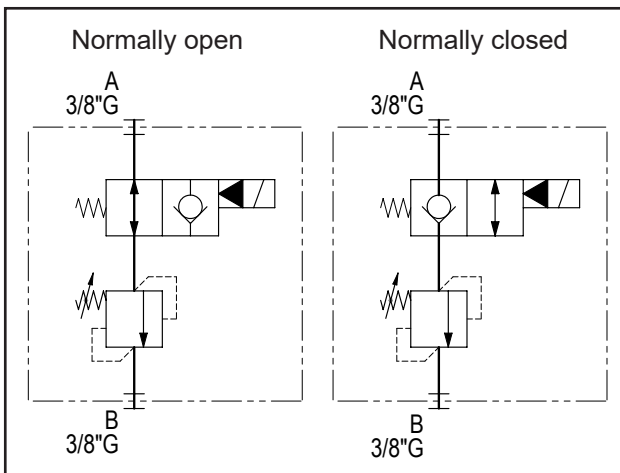
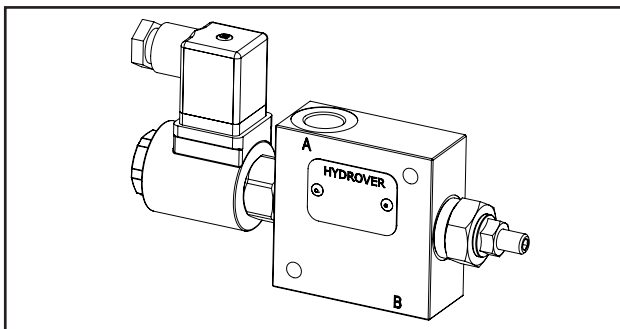
The manifold will still be provided with the corresponding cavities.

Inline relief valve electrically enabled / A-B 3/8" G / 20 lpm **H17129**

Dimensions in mm



Technical data	
Max. pressure	250 bar
Max. flow	20 lpm *
Weight	0,77 Kg
Manifold material	Aluminium
A / B ports	3/8" G



N°	Description	Q.ty
1	Bosch Rexroth coil D36 - CLASS H DIN 43650 ISO 4400 *	1
2	Connector DIN 43650 ISO 4400	1
3	Bosch Rexroth solenoid valve VEI-16 OD.15.05.18-Y-000000 (normally closed) o VEI-16 OD.15.06.18-Y-000000 (normally open) depicted without manual override *	1
4	Ø 6,5 through hole for mounting	2
5	Bosch Rexroth relief valve VSNB-08A *	1

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue

Ordering code

H	1	7	1	2	9	A	-	-	-	-	-	-	-	-	-
---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

Hydrover product

Product series
17 series - Inline valves

Product ID

Manifold material
Aluminium

Relief valve adjustment type *
Screw = S
Knob = K

Relief valve adjustment pressure range *
10-70 bar = 0
35-140 bar = 1
105-210 bar = 2
175-350 bar = 3
35-350 bar (knob reg.) = 3

Solenoid valve coil connection *
1 = DIN 43650
ISO 4400

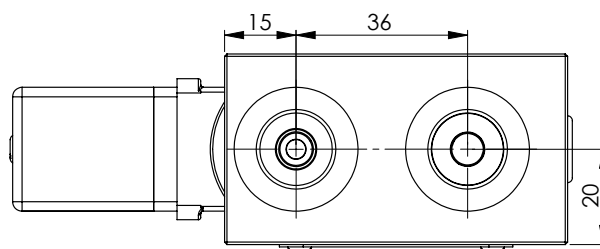
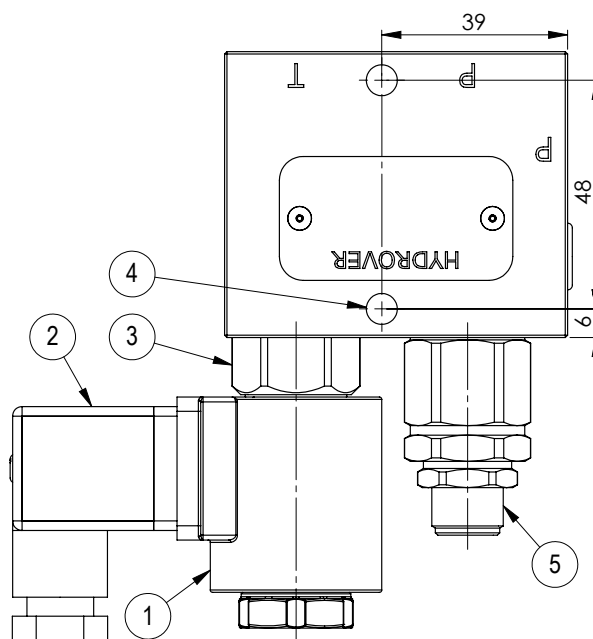
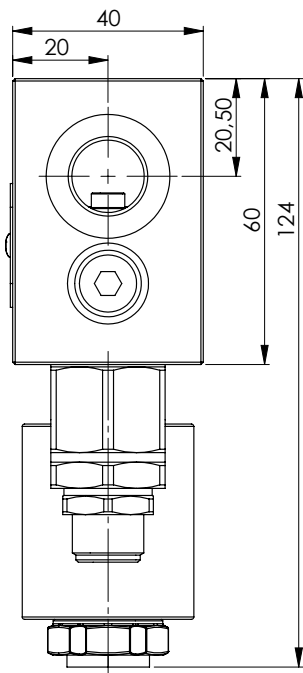
Solenoid valve coil voltage *
OB = 12V DC
OC = 24V DC
OD = 48V DC
OU = 110V RAC
AH = 230V RAC

Solenoid valve manual override *
E0 = Without
EP = Push (NA)
EV = Screw (NC)
EG = Push and twist (NA)

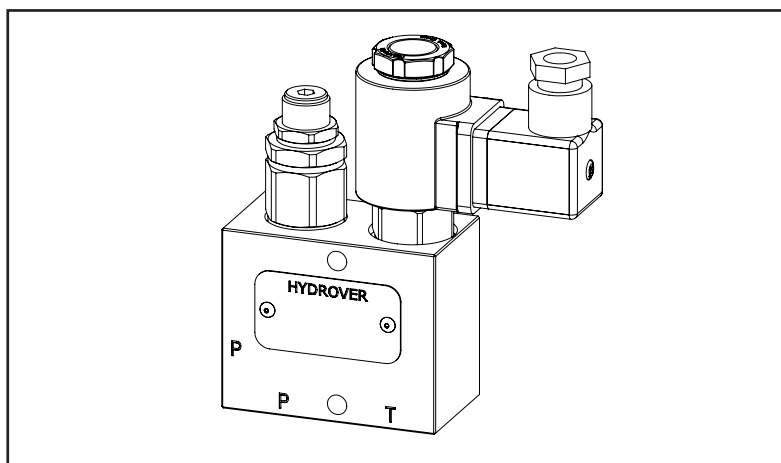
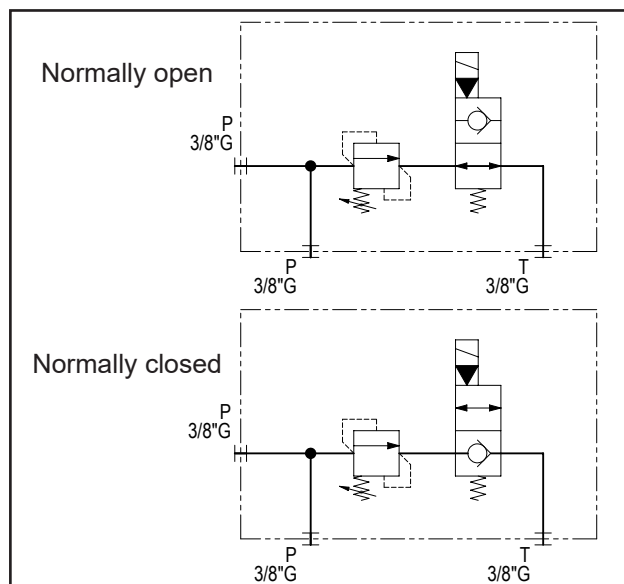
Solenoid valve spool type *
NA = Normally open
NC = Normally closed

* Omit if not required. For example, to order the product without the solenoid cartridge valve, omit the coil connection, coil voltage and manual override options: H17129A-S2.
The manifold will still be provided with the corresponding cavity.

Dimensions in mm



Technical data	
Max. pressure	250 bar
Max. flow	30 lpm *
Weight	0,86 Kg
Manifold material	Aluminium
P / T ports	3/8" G



N°	Description	Q.ty
1	Bosch Rexroth coil D36 - CLASS H DIN 43650 ISO 4400 *	1
2	Connector DIN 43650 ISO 4400	1
3	Bosch Rexroth solenoid valve VEI-16 OD.15.05.18-Y-000000 (normally closed) o VEI-16 OD.15.06.18-Y-000000 (normally open) depicted without manual override *	1
4	Ø 6,5 through hole for mounting	2
5	Bosch Rexroth relief valve VMD1.025 *	1

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue

Ordering code

H	1	7	0	8	6	A	-	-	-	-	-	-	-	-	-
---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

Hydrover product

Product series
17 series - Inline valves

Product ID

Manifold material
Aluminium

Relief valve adjustment type *
Screw = S

Relief valve adjustment pressure range *

25-120 bar	= 1
40-200 bar	= 2
200-350 bar	= 3

Solenoid valve coil connection *
1 = DIN 43650
ISO 4400

Solenoid valve coil voltage *

OB =	12V DC
OC =	24V DC
OD =	48V DC
OU =	110V RAC
AH =	230V RAC

Solenoid valve manual override *

E0 =	Without
EP =	Push (NA)
EV =	Screw (NC)
EG =	Push and twist (NA)

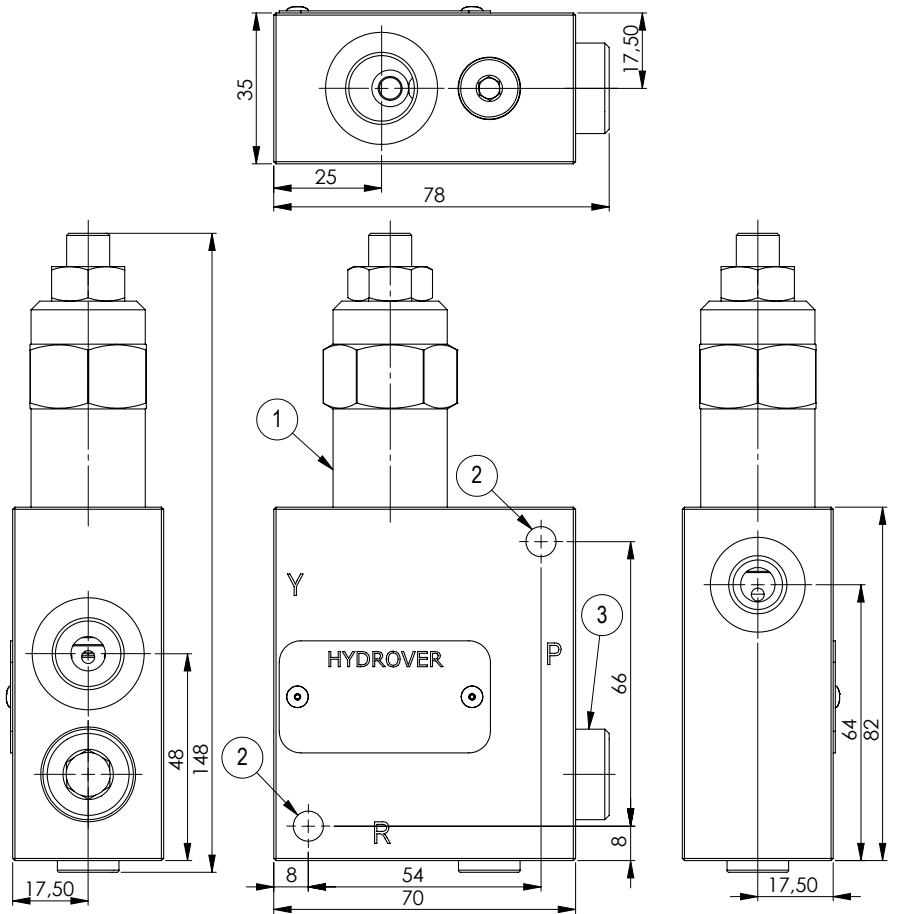
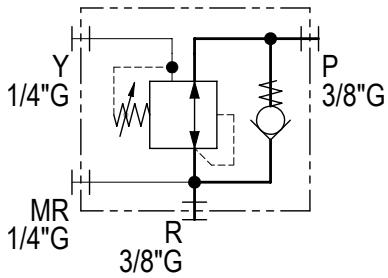
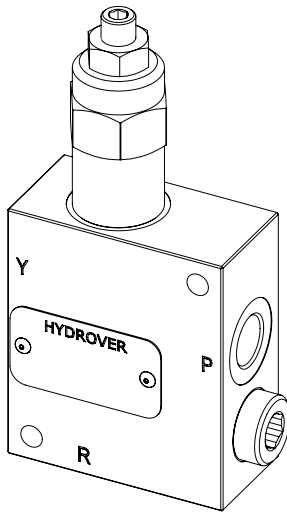
Solenoid valve spool type *

NA =	Normally open
NC =	Normally closed

* Omit if not required. For example, to order the product without the solenoid cartridge valve, omit the coil connection, coil voltage and manual override options: H17086A-S2.
The manifold will still be provided with the corresponding cavity.

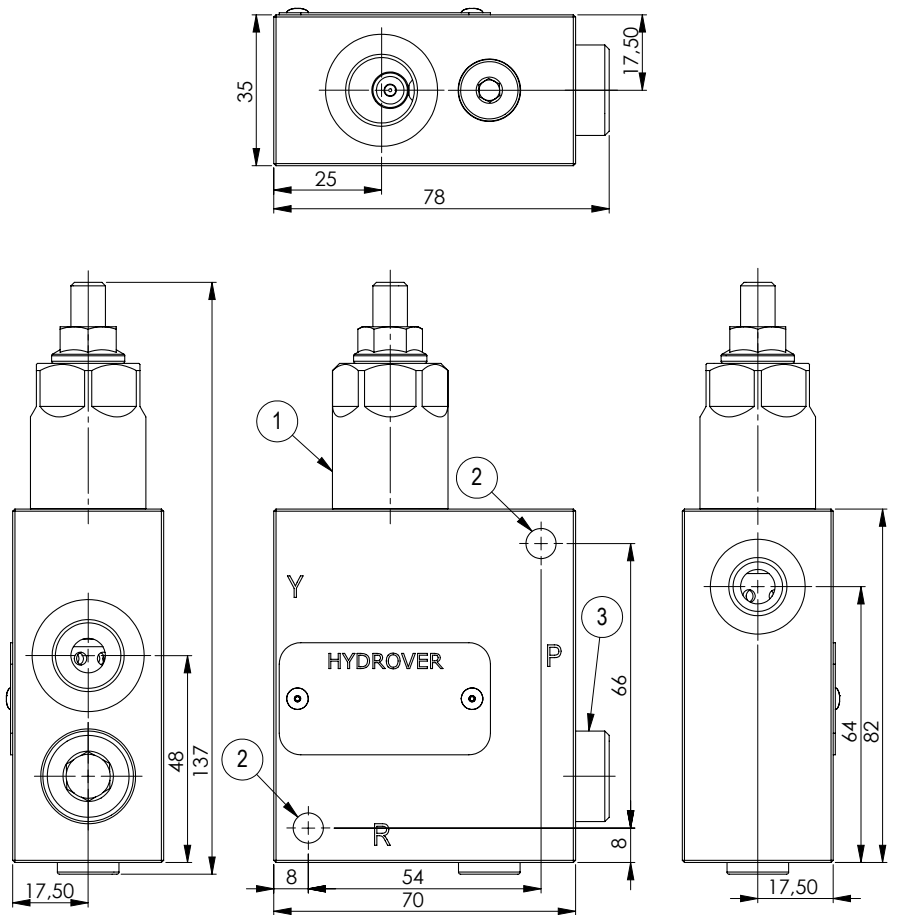
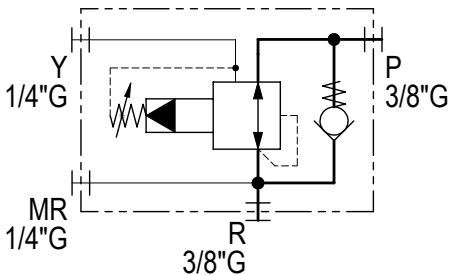
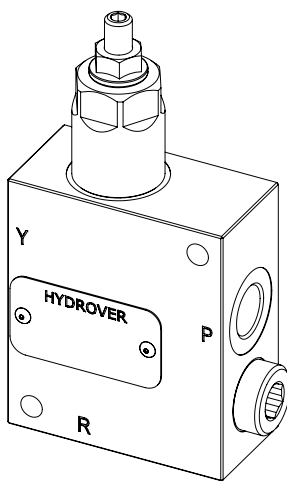
Inline pressure reducing valve with check valve / 3/8" G **H17032**

VRPR-10A



Dimensions in mm

VRPX-10A



Ordering code

H 1 7 0 3 2 A - - -

Hydrover product

Product series

17 series - Inline valves

Product ID

Manifold material

Aluminium

Pressure reducing valve type *

R = VRPR-10A (direct)
X = VRPX-10A (pilot)

VRPR-10A reducing valve pressure range (static) *

0 = 2-14 bar
1 = 2-25 bar
2 = 10-50 bar
3 = 28-80 bar

VRPX-10A reducing valve pressure range (static) *

0 = 25-100 bar
1 = 35-140 bar
2 = 70-280 bar
3 = 35-350 bar (adj. knob)

Reducing valve adjustment type *

S = Screw
K = Knob

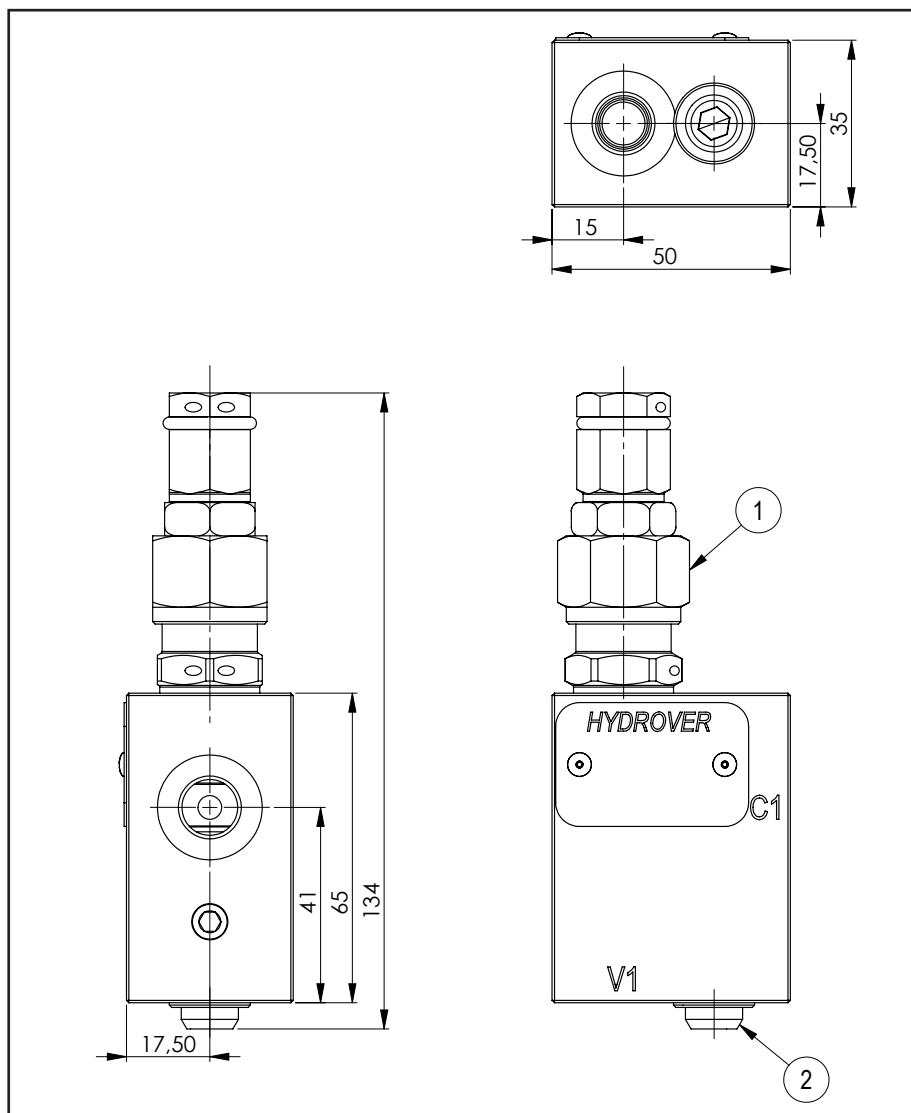
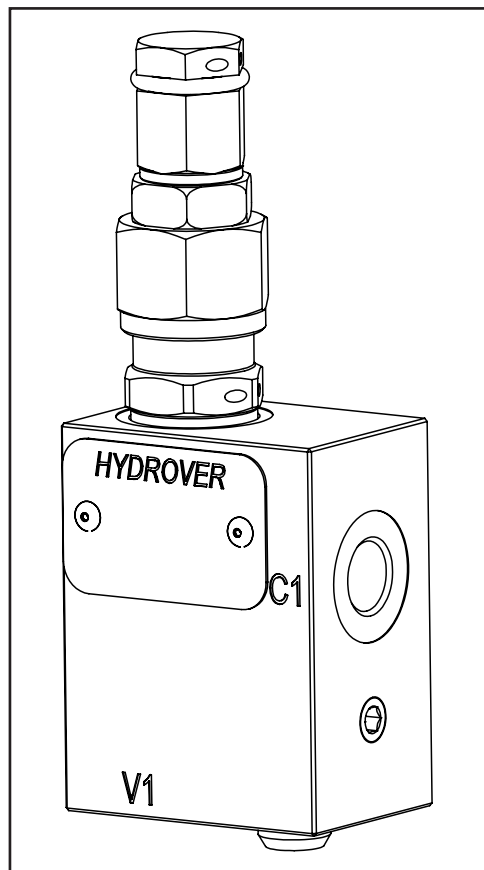
* Omit if not required. To order the product without the pressure reducing cartridge valve, omit the valve adjustment type, valve pressure range and valve type options: H17032A.
The manifold will still be provided with the corresponding cavity.

N°	Description	Q.ty
1	Bosch Rexroth reducing valve VRPR-10A o VRPX-10A * depicted with screw adjustment	1
2	Ø 7 through hole for mounting	2
3	Bosch Rexroth check valve OTU602009900000	1

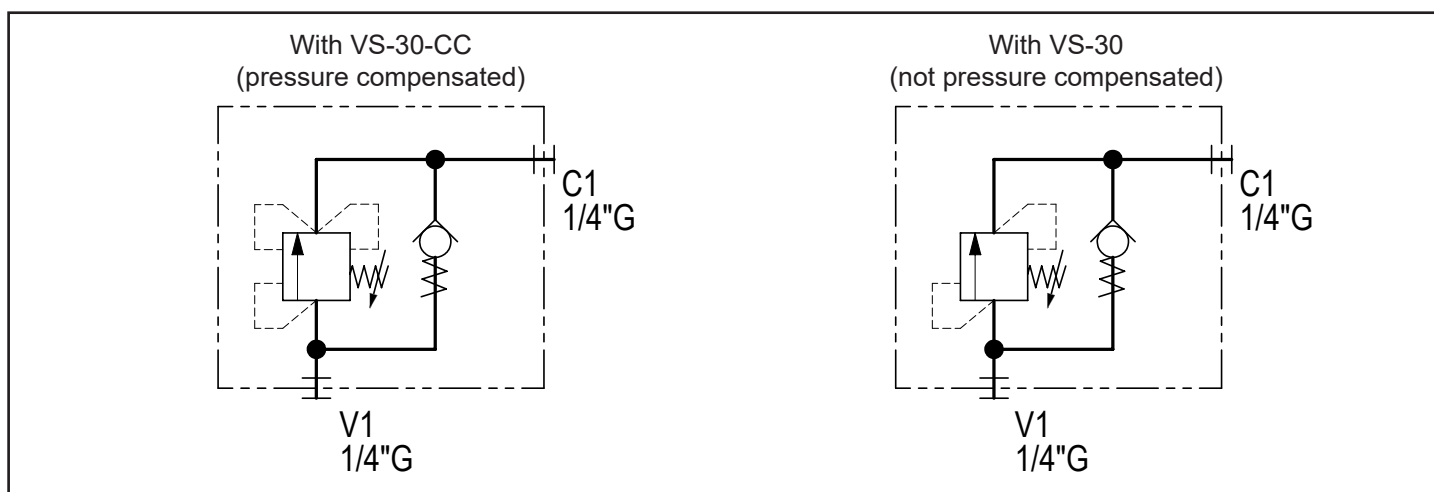
* for complete technical information, click on the blue link or go to the components section at the end of the catalogue

Technical data	
Max. pressure	250 bar
Max. flow with VRPR-10A	25 lpm *
Max. flow with VRPX-10A	55 lpm *
Weight	0,75 Kg
Manifold material	Aluminium
MR / Y ports	1/4" G
P / R ports	3/8" G

Technical data	
Max. pressure	250 bar
Max. flow	30 lpm *
Weight	0,5 Kg
Manifold material	Aluminium



Dimensions in mm



N°	Description	Q.ty
1	Bosch Rexroth pressure compensated valve VS-30-CC * (as depicted). It's possible to use a Bosch Rexroth non pressure compensated valve VS-30 * in case it is acceptable to add to the set pressure the pressure necessary for the second branch.	1
2	Bosch Rexroth check valve	1

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue

Ordering code

H	1	7	0	7	1	A	-	-	-
---	---	---	---	---	---	---	---	---	---

Hydrover product

Product series

17 series - Inline valves

Product ID

Manifold material

Aluminium

S =

M =

Valve type *

VS-30-CC

VS-30

Valve adjustment pressure range *

0 = 5-50 bar

1 = 30-100 bar

2 = 50-210 bar

3 = 100-350 bar

Valve adjustment type *

S =

K =

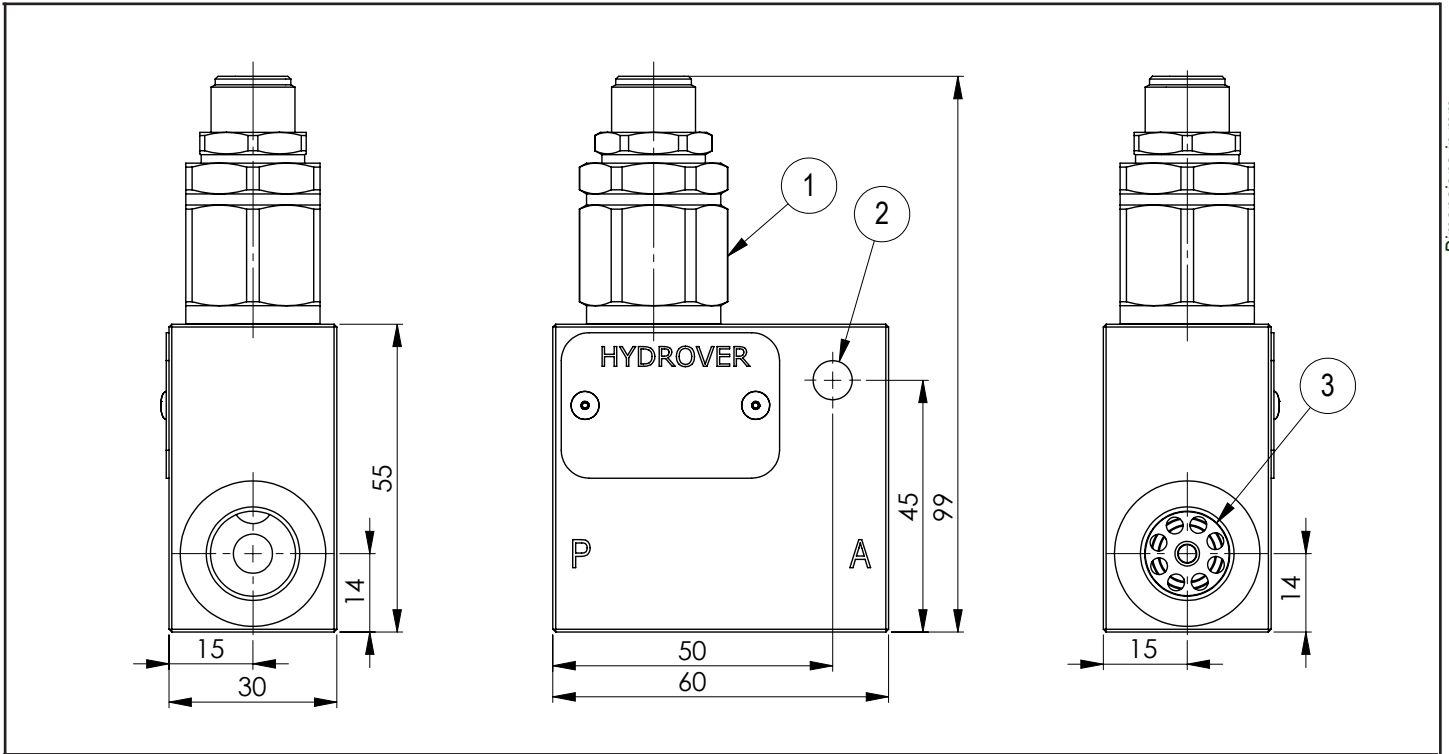
Screw

Knob (only for VS-30)

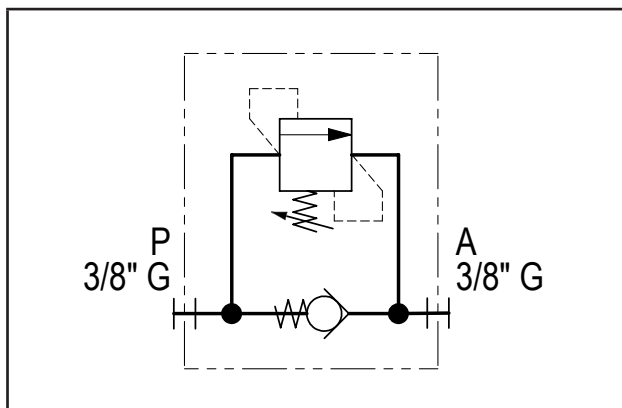
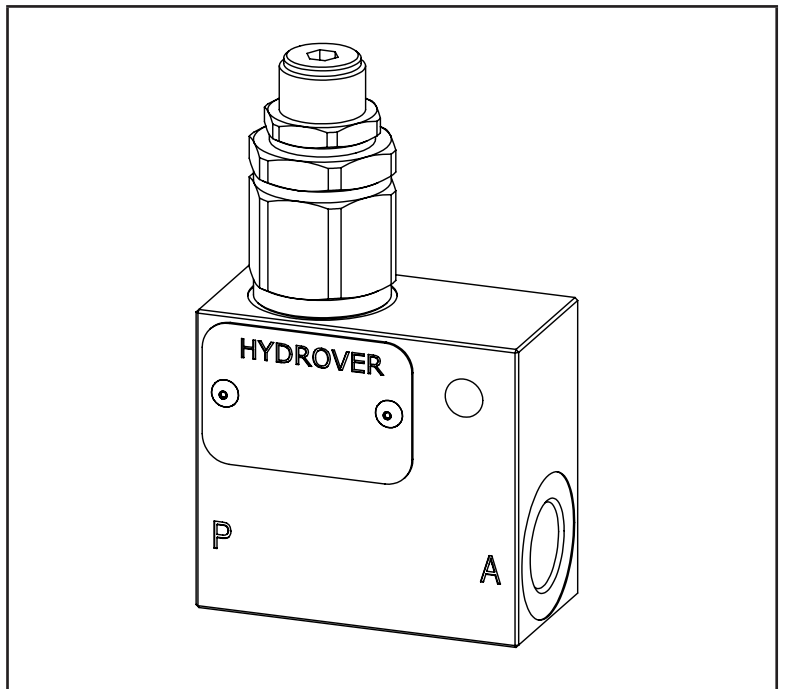
* Omit if not required. To order the product without the cartridge valve, omit the adjustment type, valve pressure range and valve type options: H17071A.

The manifold will still be provided with the corresponding cavity.

Dimensions in mm



Technical data	
Max. pressure	250 bar
Max. flow	25 lpm *
Weight	0,37 Kg
Manifold material	Aluminium
P / A ports	3/8" G



N°	Description	Q.ty
1	Bosch Rexroth relief valve VMD1.025 *	1
2	Ø 7 through hole for mounting	1
3	Check valve	1

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue

Ordering code

H	1	7	1	5	8	A	-	_	_
---	---	---	---	---	---	---	---	---	---

Hydrover product

Product series

17 series - Inline valves

Product ID

Manifold material

Aluminium

Relief valve pressure range *

25-120 bar

40-200 bar

200-350 bar

Relief valve adjustment type *

Screw

1 =

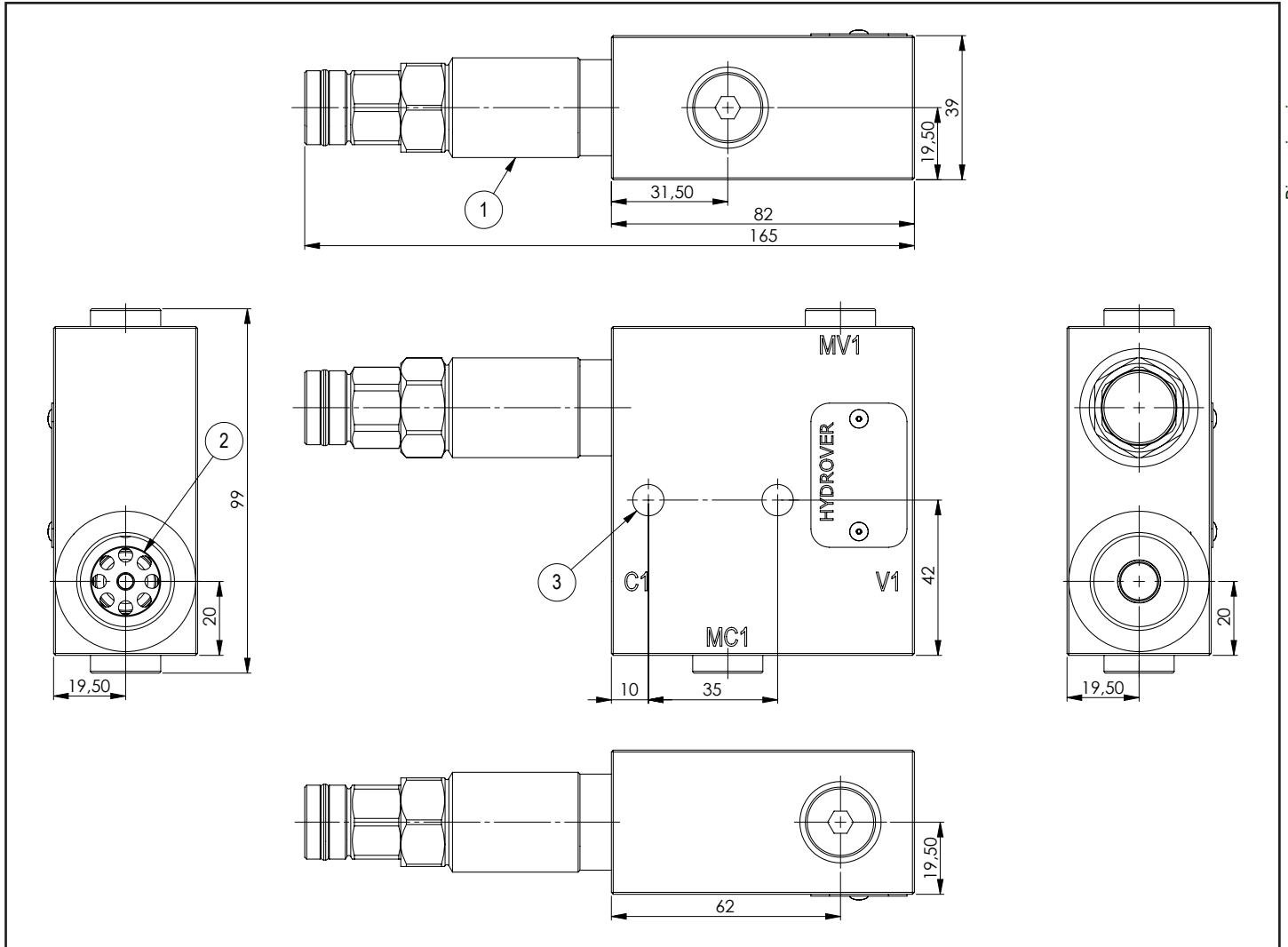
2 =

3 =

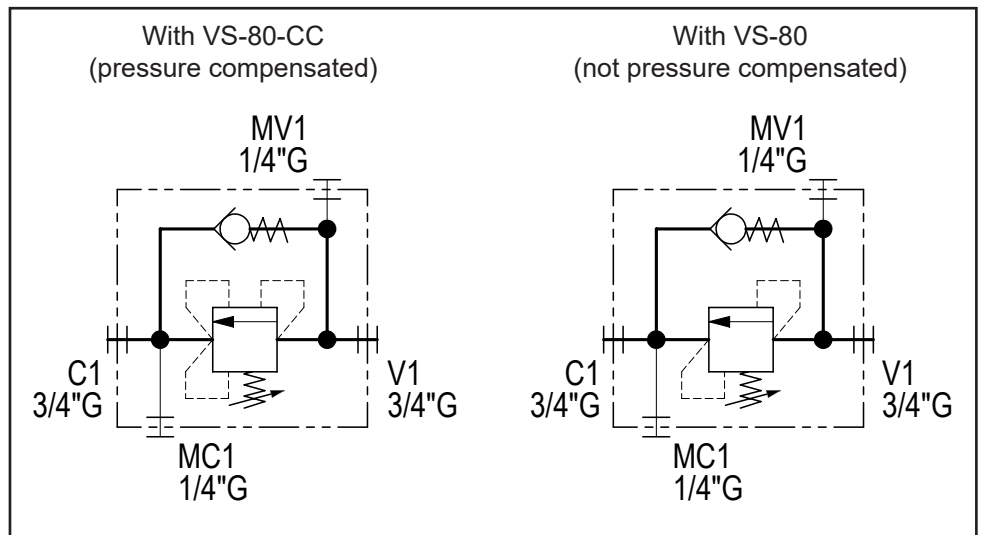
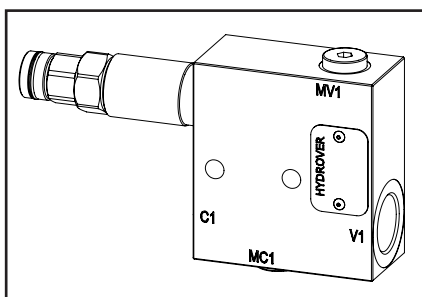
S =

* Omit if not required. To order the product without the pressure relief cartridge valve, omit the pressure range and the adjustment type options: H17158A.
The manifold will still be provided with the corresponding cavity.

Dimensions in mm



Technical data	
Max. pressure	250 bar
Max. flow	80 lpm *
Weight	1,1 Kg
Manifold material	Aluminium



N°	Description	Q.ty
1	Pressure compensated valve VS-80-CC (depicted) or Bosch Rexroth non pressure compensated valve VS-80 * It's possible to use a Bosch Rexroth non pressure compensated valve VS-80 * in case it is acceptable to add to the set pressure the pressure necessary for the second branch.	1
2	Bosch Rexroth check valve	1
3	Ø 8,5 through hole for mounting	2

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue

Ordering code

H	1	7	0	5	6	A	-	-	-
---	---	---	---	---	---	---	---	---	---

Hydrover product

Product series

17 series - Inline valves

Product ID

Manifold material

Aluminium

S =

M =

Valve type *

VS-80-CC

VS-80

Pressure range valve adjustment *

VS-80-CC

0 = 5-50 bar

1 = 25-100 bar

2 = 60-210 bar

3 = 100-350 bar

VS-80

0 = 5-50 bar

1 = 30-100 bar

2 = 80-250 bar

Adjustment valve type *

S =

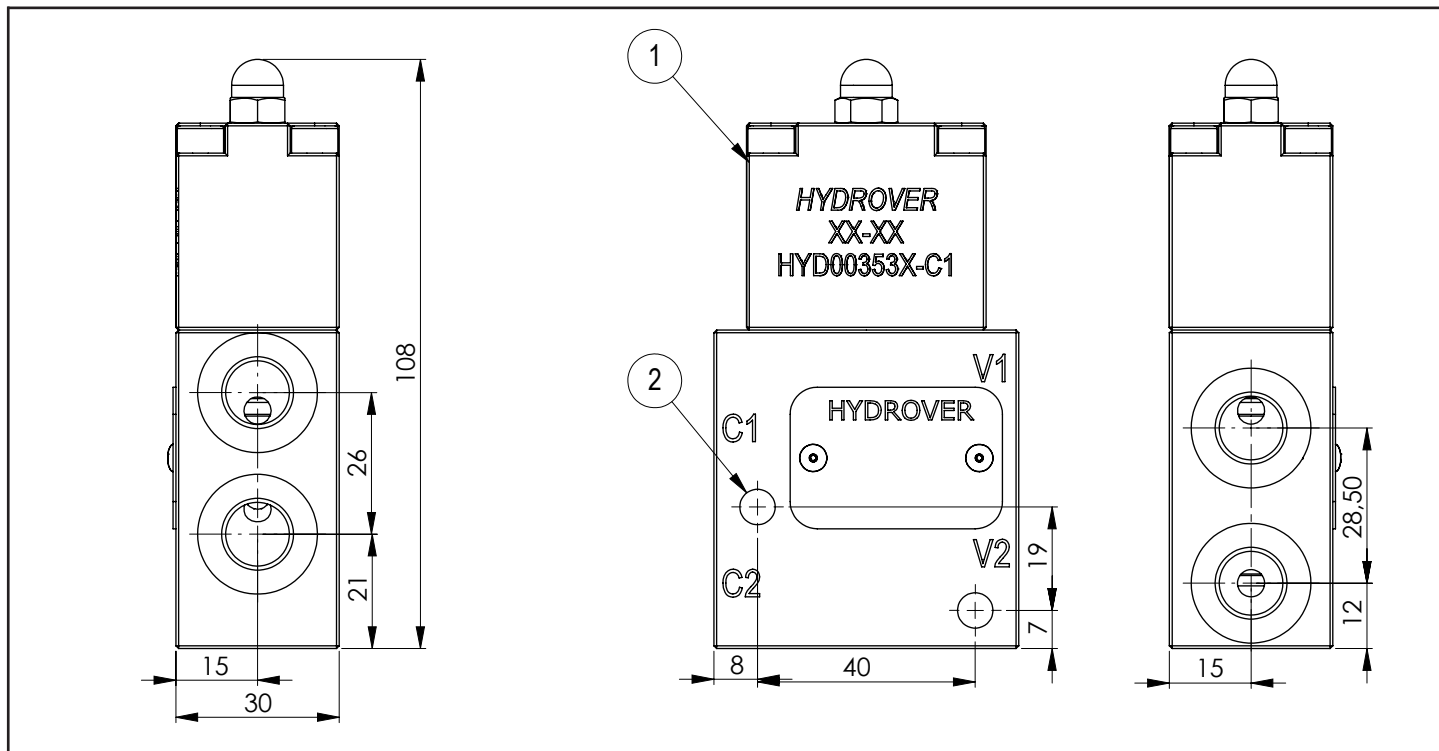
K =

Screw

Knob (only for VS-80)

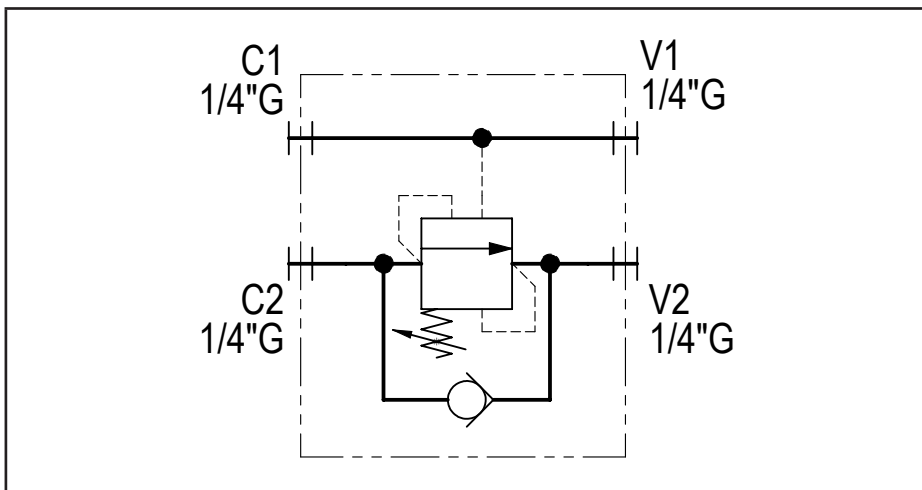
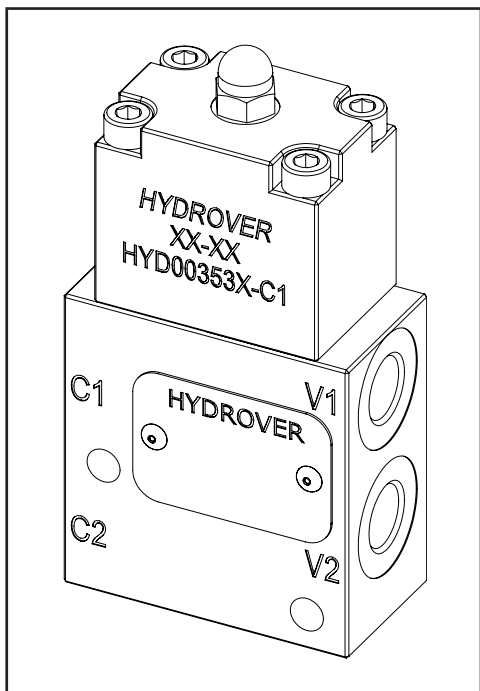
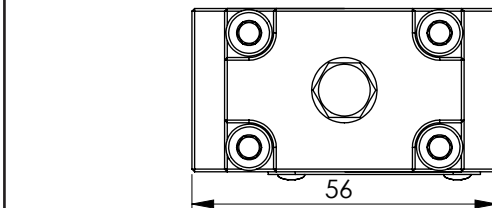
* Omit if not required. To order the product without the cartridge valve, omit the adjustment type, valve pressure range and valve type options: H17056A.

The manifold will still be provided with the corresponding cavity.



Dimensions in mm

Technical data	
Max. pressure	350 bar
Max. flow	25 lpm
Weight	1,1 Kg
Manifold material	Stainless steel 316L
All ports	1/4" G



N°	Description	Q.ty
1	Counterbalance valve HCOM02-S3 100-350 bar 4:1 pilot ratio under cap	1
2	∅ 6,5 through hole for mounting	2

H17150

Ordering code

H	1	7	1	5	0	X
---	---	---	---	---	---	---

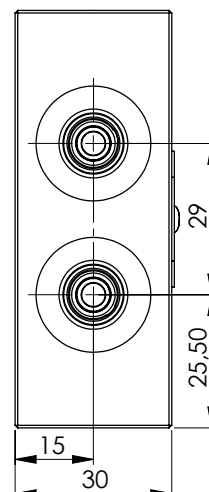
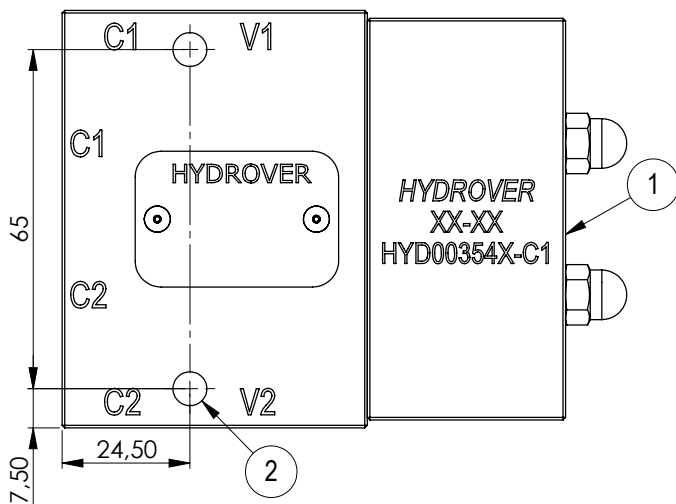
Hydrover product

Product series

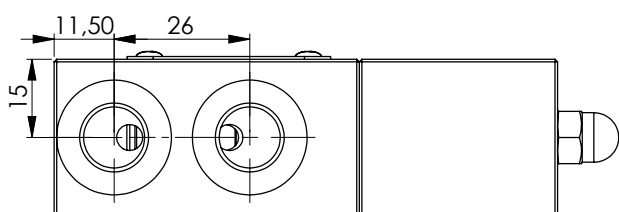
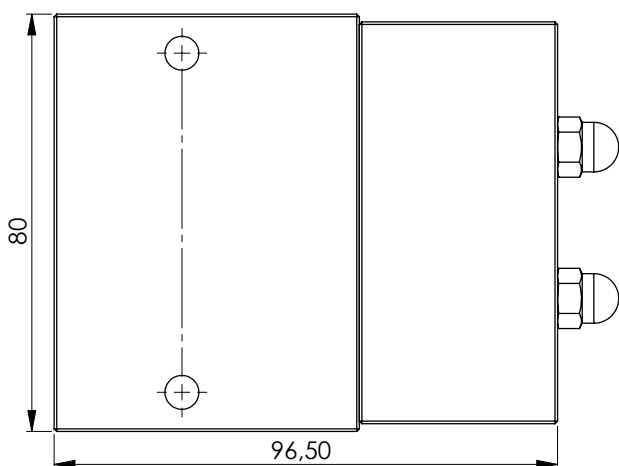
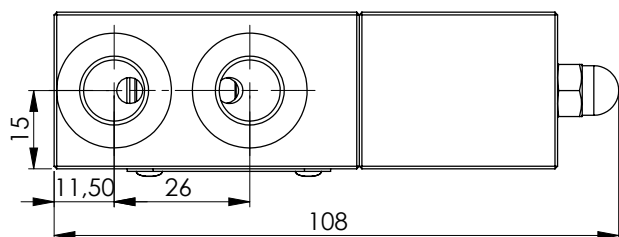
17 series - Inline valves

Manifold material
Stainless steel 316L

Product ID

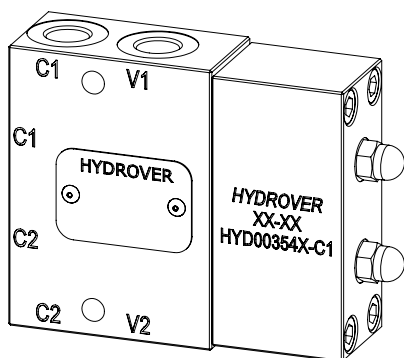
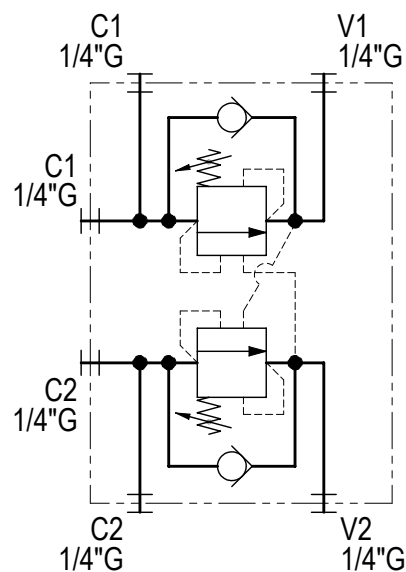


Dimensions in mm



Technical data

Max. pressure	350 bar
Max. flow	25 lpm
Weight	1,7 Kg
Manifold material	Stainless steel 316L
C1 / C2 / V1 / V2 ports	1/4" G



N°	Description	Q.ty
1	Counterbalance valve HCOM02-S3 100-350 bar 4:1 pilot ratio under cap	2
2	Ø 6,5 through hole for mounting	2

H17151

Ordering code

H	1	7	1	5	1	X
---	---	---	---	---	---	---

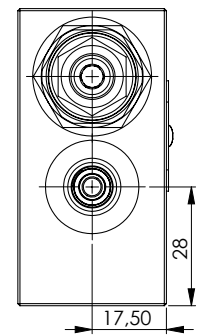
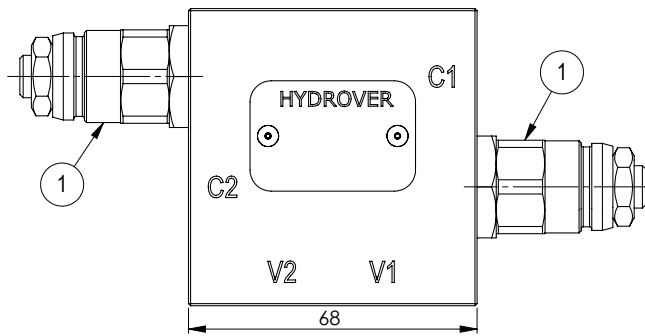
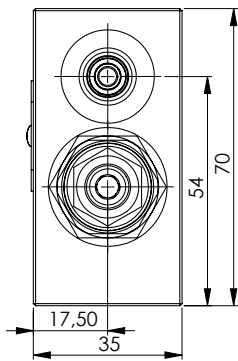
Hydrover product

Product series

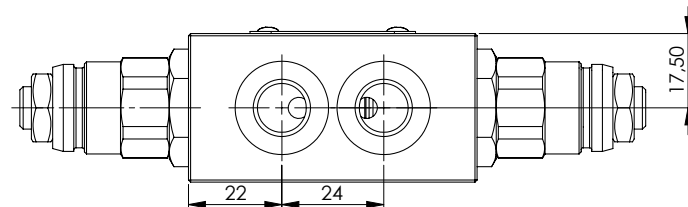
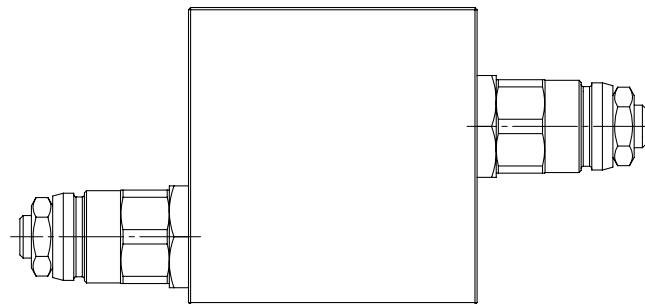
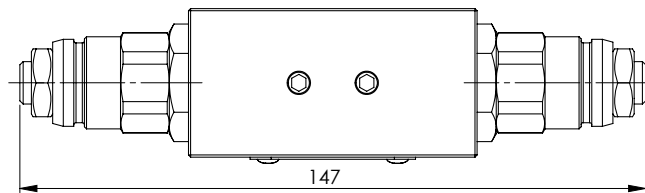
17 series - Inline valves

Manifold material
Stainless steel 316L

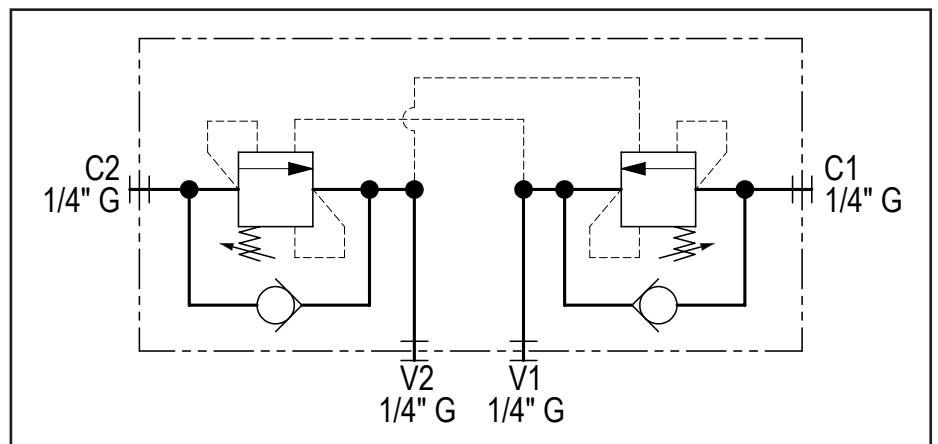
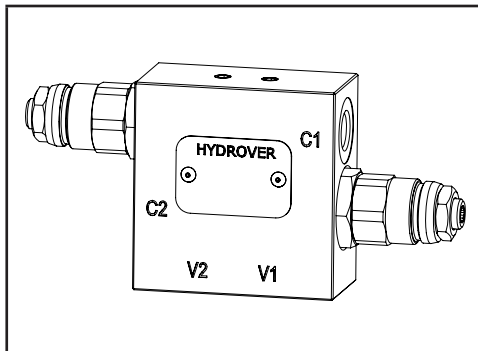
Product ID



Dimensions in mm



Technical data	
Max. pressure	250 bar
Max. flow	25 lpm *
Pilot ratio	4:1
Weight	0,8 Kg
Manifold material	Aluminium
C1 / C2 / V1 / V2 ports	1/4" G



N°	Description	Q.ty
1	Bosch Rexroth counterbalance valve VBSN-08AA *	2

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue

Ordering code

H	1	7	0	3	7	A	-	_	_
---	---	---	---	---	---	---	---	---	---

Hydrover product

Product series

17 series - Inline valves

Product ID

Manifold material

Aluminium

**Counterbalance valves
adjustment pressure range ***

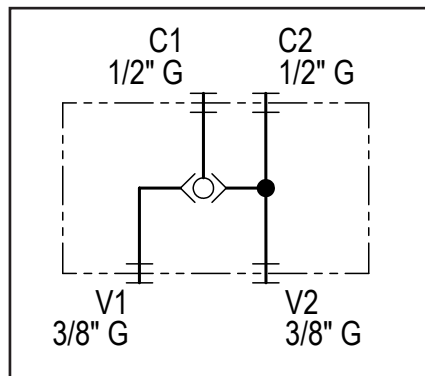
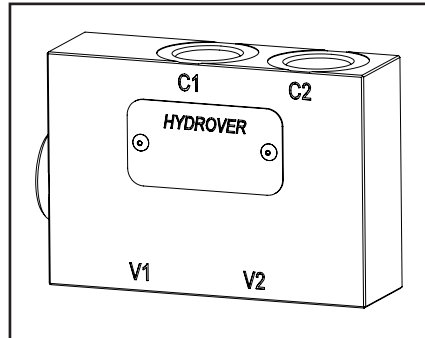
2 = 100-210 bar
3 = 200-350 bar

Counterbalance valves adjustment type*

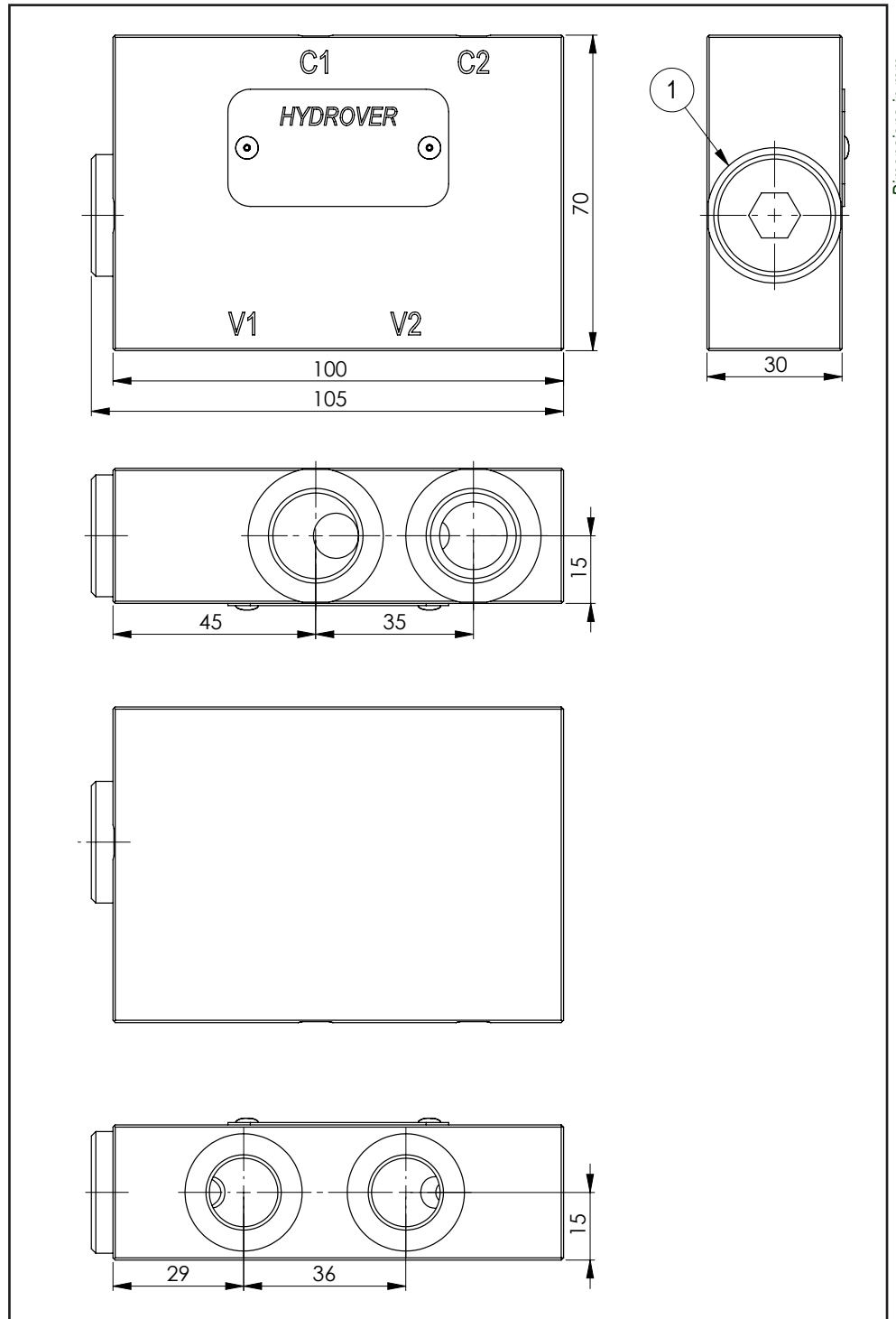
S = Screw

* Omit if not required. To order the product without the counterbalance cartridge valves, omit the pressure range and the adjustment type options: H17037A.
The manifold will still be provided with the corresponding cavities.

Technical data	
Max. pressure	350 bar
Max. flow input	25 lpm
Max. flow regenerated	50 lpm
Weight	1,4 Kg
Manifold material	Steel
V1 / V2 / T ports	3/8" G
C1 / C2 / T ports	1/2" G



N°	Description	Q.ty
1	Shuttle valve under 1/2" G plug	1



Ordering code

H	1	7	0	7	3	S
---	---	---	---	---	---	---

Hydrover product

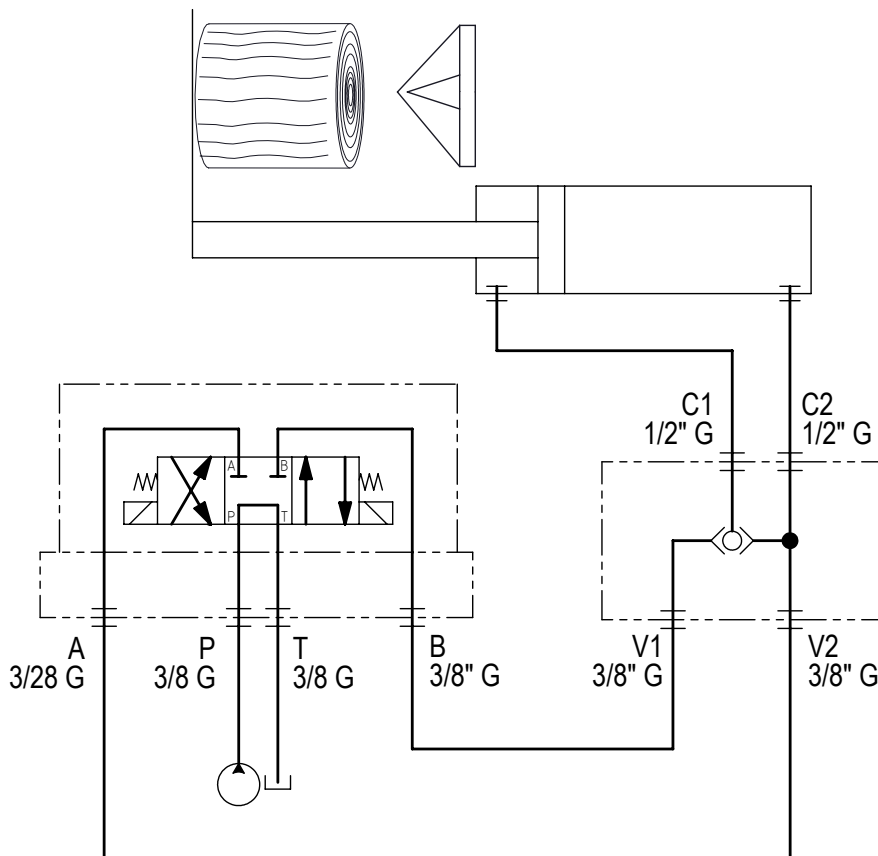
Manifold material
Steel

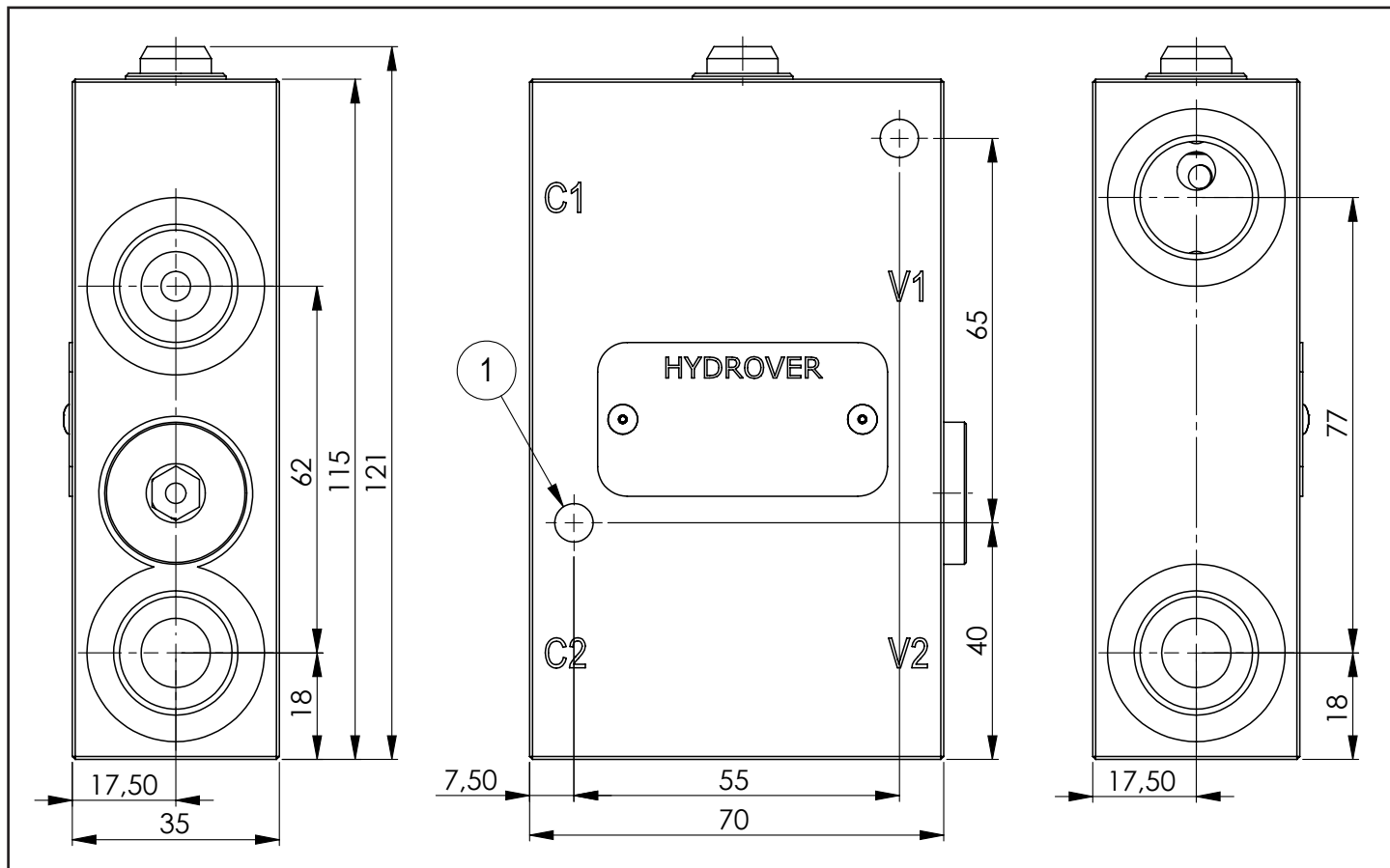
Product series
17 series - Inline valves

Product ID

Hydraulic schematic example for pull horizontal log splitter

← Regenerative (high speed)

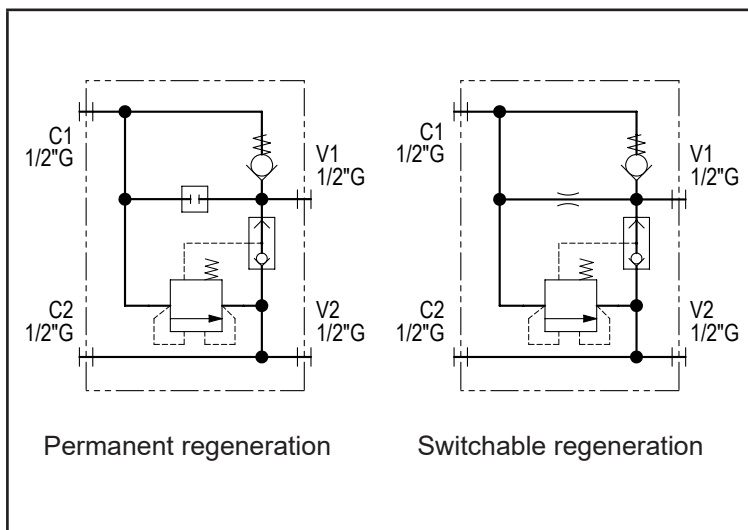
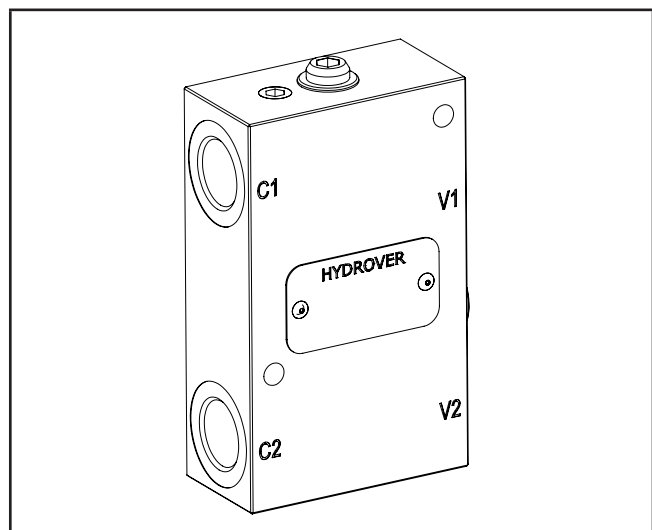




Dimensions in mm

Technical data	
Max. pressure	250 bar
Max. flow pump	30 lpm
Max. flow regenerated oil	About 90 lpm
Weight	0,9 Kg
Manifold material	Aluminium
C1 / C2 / V1 / V2 ports	1/2" G

N°	Description	Q.ty
1	Ø 6,5 through hole for mounting	2



Ordering code

H 1 7 0 9 5 A - _ _

Hydrover product

Product series

17 series - Inline valves

Product ID

Manifold material

Aluminium

RP =

RE =

Regeneration type

Permanent regeneration

Switchable regeneration

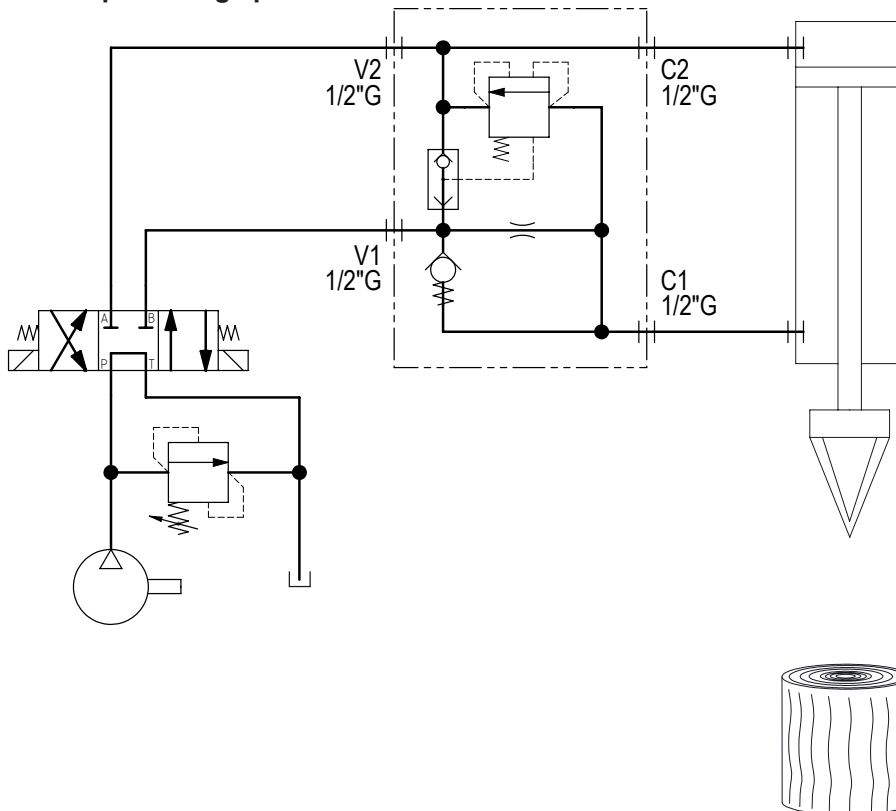
Note:

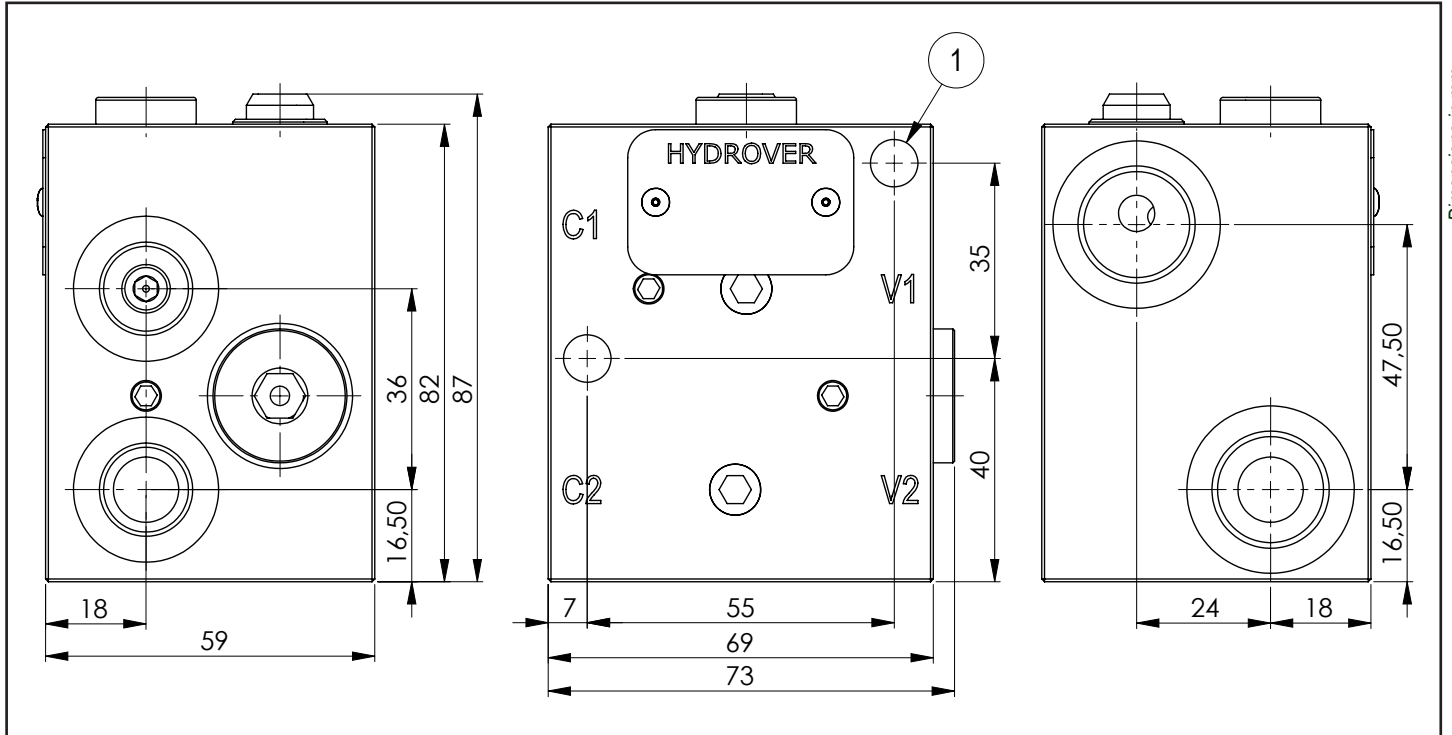
The regenerative system increases the speed but reduces the strength of the cylinder, since the oil pressure is only exerted on the rod section.

With the permanent regeneration, if the strength is insufficient, the movement will stop. With the switchable regeneration the orifice leakage will allow the piston rod chamber to relieve the pressure and then the oil pressure will be exercised on the full section of the cylinder.

Before opting for the switchable regeneration, it is recommended to check whether this increase in strength can be sustained by the machine facilities.

Hydraulic schematic example for log splitter

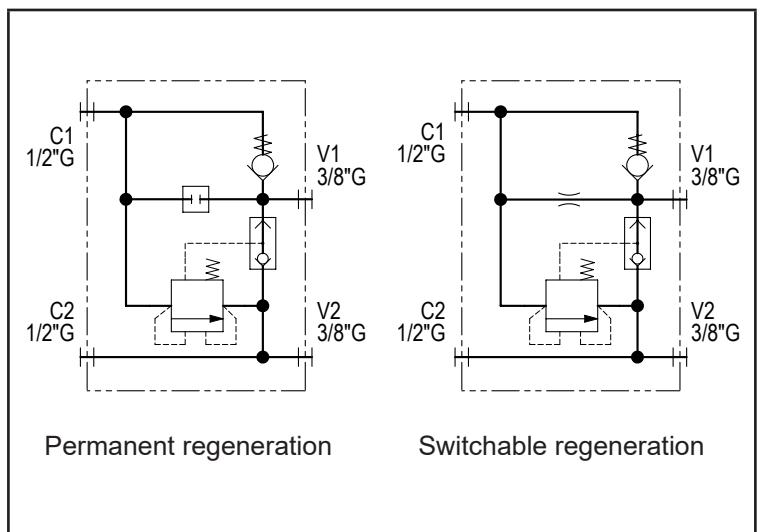
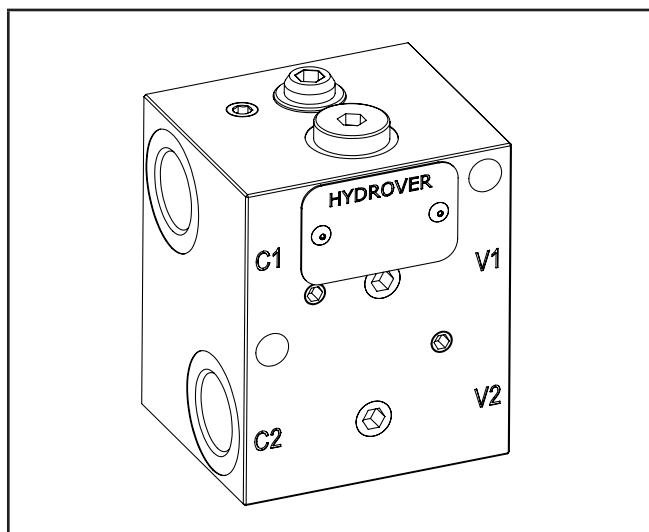




Dimensions in mm

Technical data	
Max. pressure	250 bar
Max. flow pump	30 lpm
Max. flow regenerated oil	About 90 lpm
Weight	1 Kg
Manifold material	Aluminium
V1 / V2 ports	3/8" G
C1 / C2 ports	1/2" G

N°	Description	Q.ty
1	Ø 8,5 through hole for mounting	2



Ordering code

H	1	7	0	9	6	A	-	_	_
---	---	---	---	---	---	---	---	---	---

Hydrover product

Product series

17 series - Inline valves

Product ID

Manifold material

Aluminium

RP =

RE =

Regeneration type

Permanent regeneration

Switchable regeneration

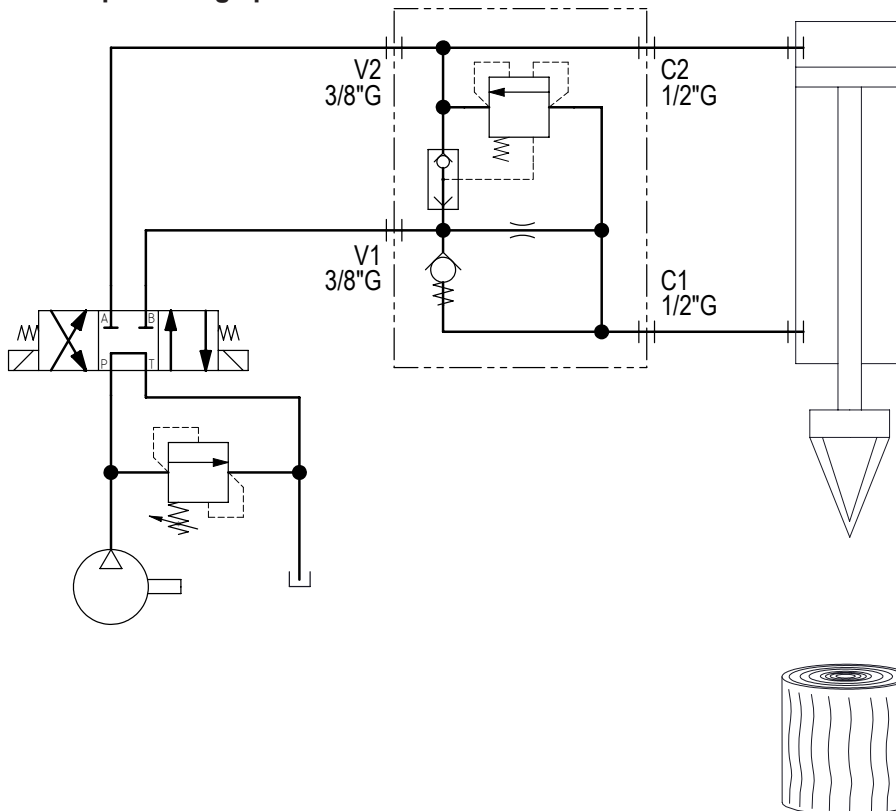
Note:

The regenerative system increases the speed but reduces the strength of the cylinder, since the oil pressure is only exerted on the rod section.

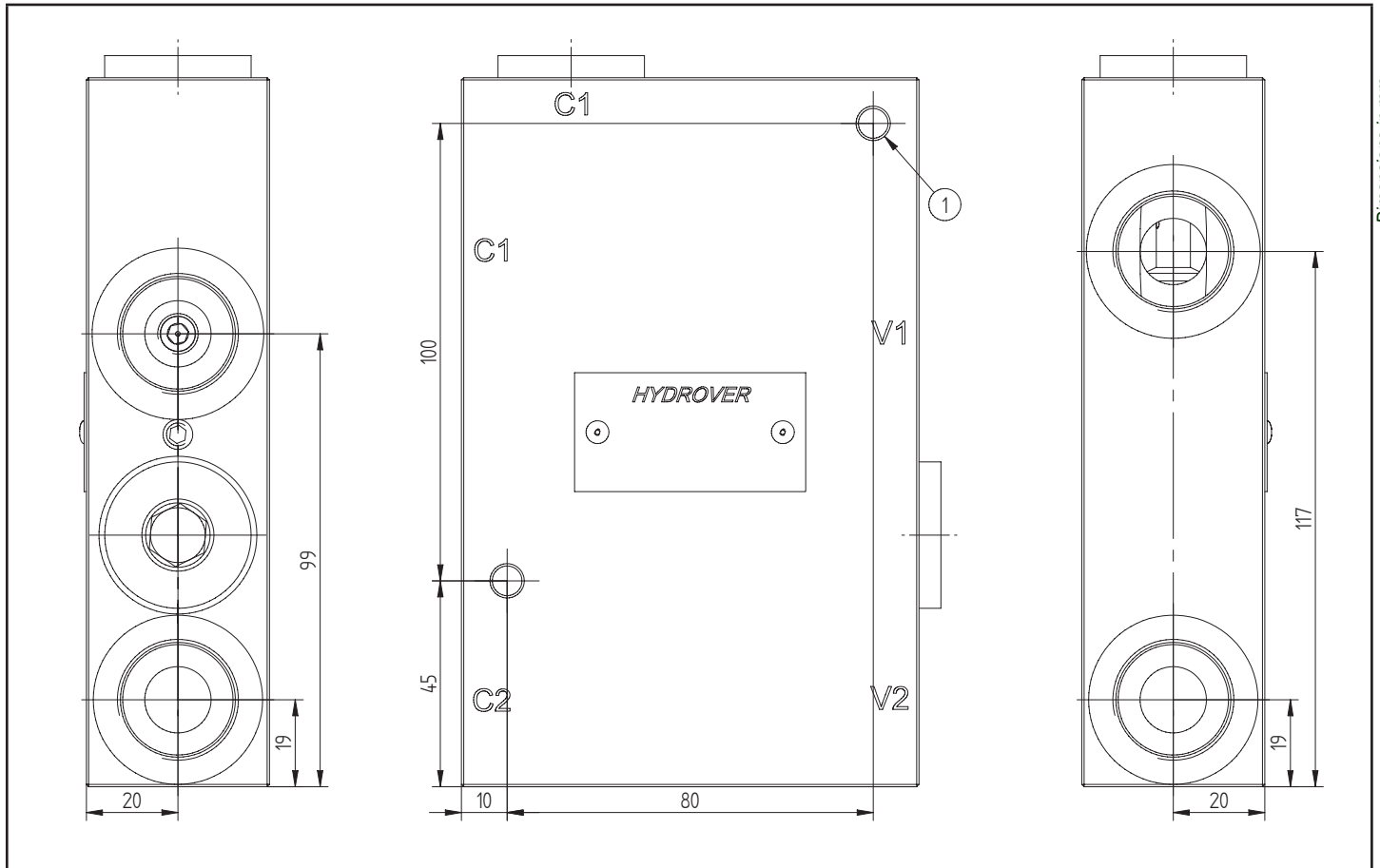
With the permanent regeneration, if the strength is insufficient, the movement will stop. With the switchable regeneration the orifice leakage will allow the piston rod chamber to relieve the pressure and then the oil pressure will be exercised on the full section of the cylinder.

Before opting for the switchable regeneration, it is recommended to check whether this increase in strength can be sustained by the machine facilities.

Hydraulic schematic example for log splitter



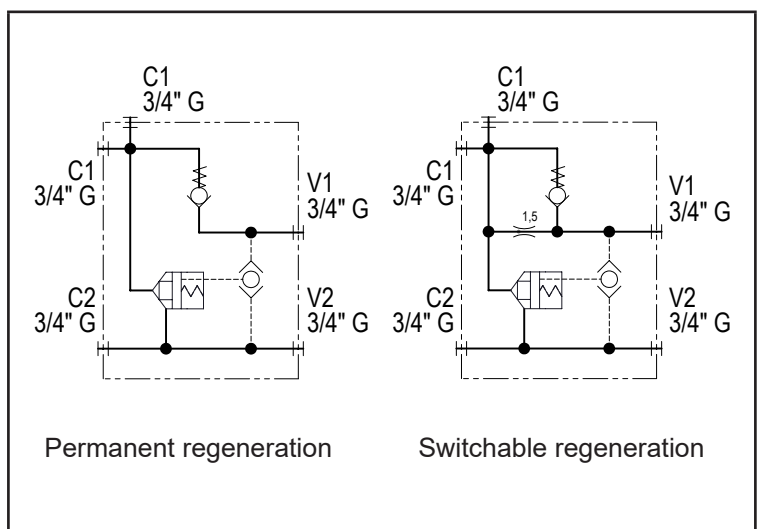
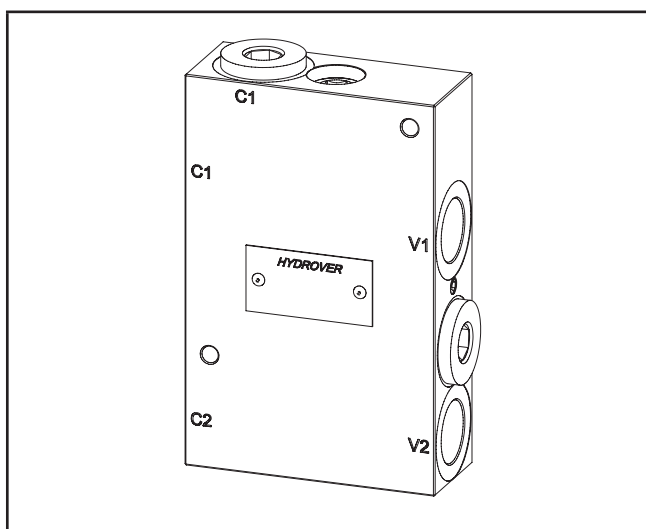
Inline permanent or switchable regenerative control valve 3/4" G **H17009**



Dimensions in mm

Technical data	
Max. pressure	350 bar
Max. flow pump	80 lpm
Max. flow regenerated oil	About 150 lpm
Weight	4,1 Kg
Manifold material	Steel
C1 / C2 / V1 / V2 ports	3/4" G

N°	Description	Q.ty
1	Ø 6,5 through hole for mounting	2



Ordering code

H	1	7	0	0	9	S	-	_	_
---	---	---	---	---	---	---	---	---	---

Hydrover product

Product series

17 series - Inline valves

Product ID

Manifold material

Steel

RP =

RE =

Regeneration type

Permanent regeneration

Switchable regeneration

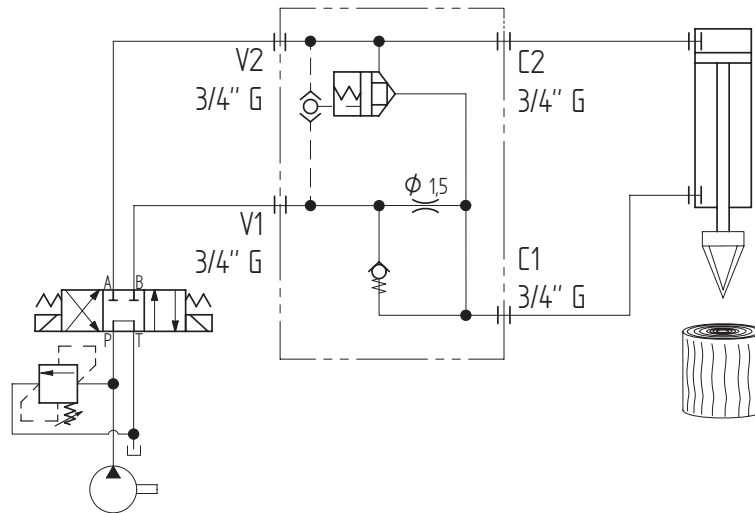
Note:

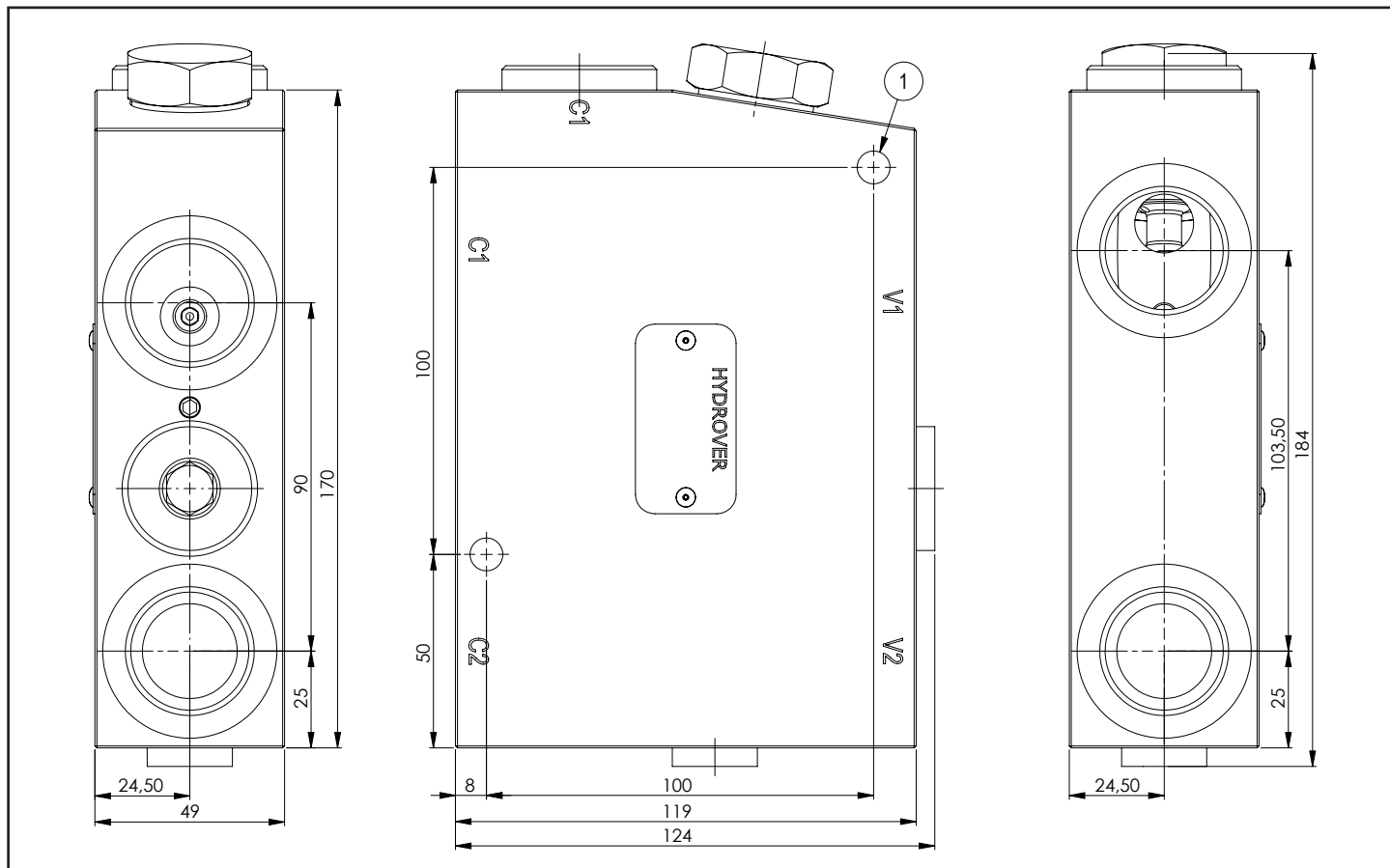
The regenerative system increases the speed but reduces the strength of the cylinder, since the oil pressure is only exerted on the rod section.

With the permanent regeneration, if the strength is insufficient, the movement will stop. With the switchable regeneration the orifice leakage will allow the piston rod chamber to relieve the pressure and then the oil pressure will be exercised on the full section of the cylinder.

Before opting for the switchable regeneration, it is recommended to check whether this increase in strength can be sustained by the machine facilities.

Hydraulic schematic example for log splitter

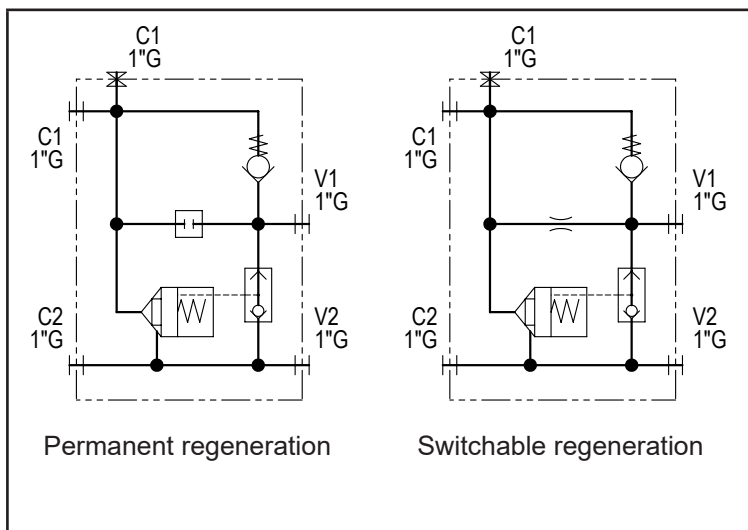
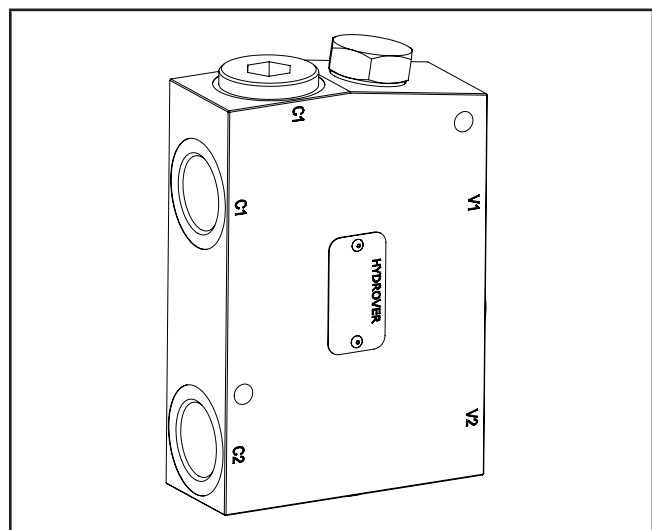




Dimensions in mm

Technical data	
Max. pressure	250 bar
Max. flow pump	120 lpm
Max. flow regenerated oil	About 200 lpm
Weight	5,8 Kg
Manifold material	Steel
C1 / C2 / V1 / V2 ports	1" G

N°	Description	Q.ty
1	Ø 8,5 through hole for mounting	2



Ordering code

H 1 7 0 7 5 S - _ _

Hydrover product

Product series

17 series - Inline valves

Product ID

Manifold material

Aluminium

Regeneration type

RP =

Permanent regeneration

RE =

Switchable regeneration

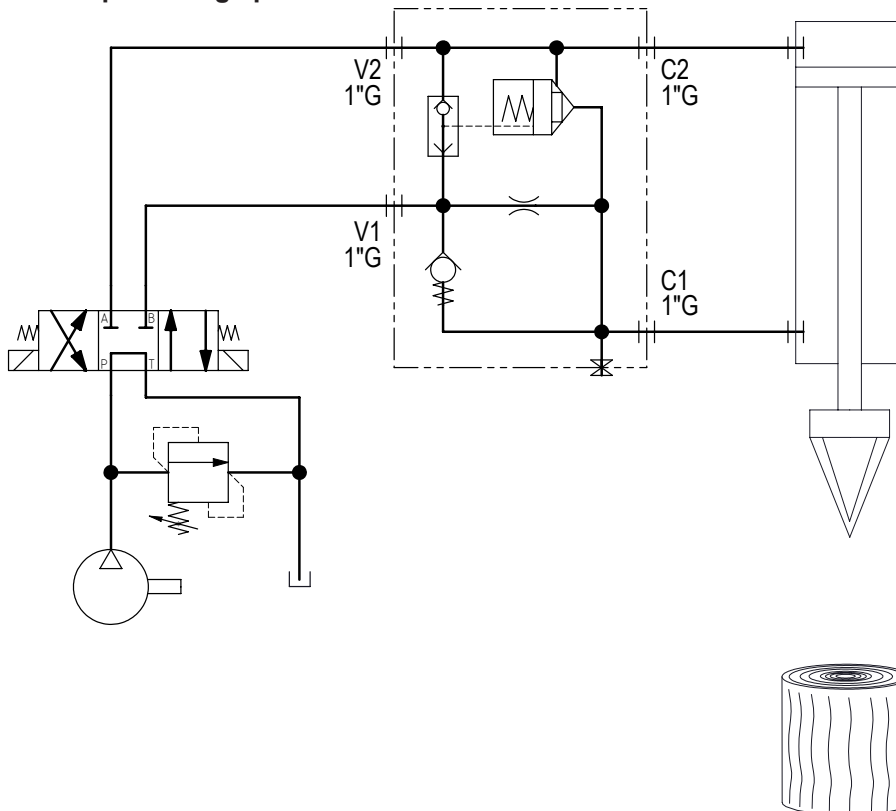
Note:

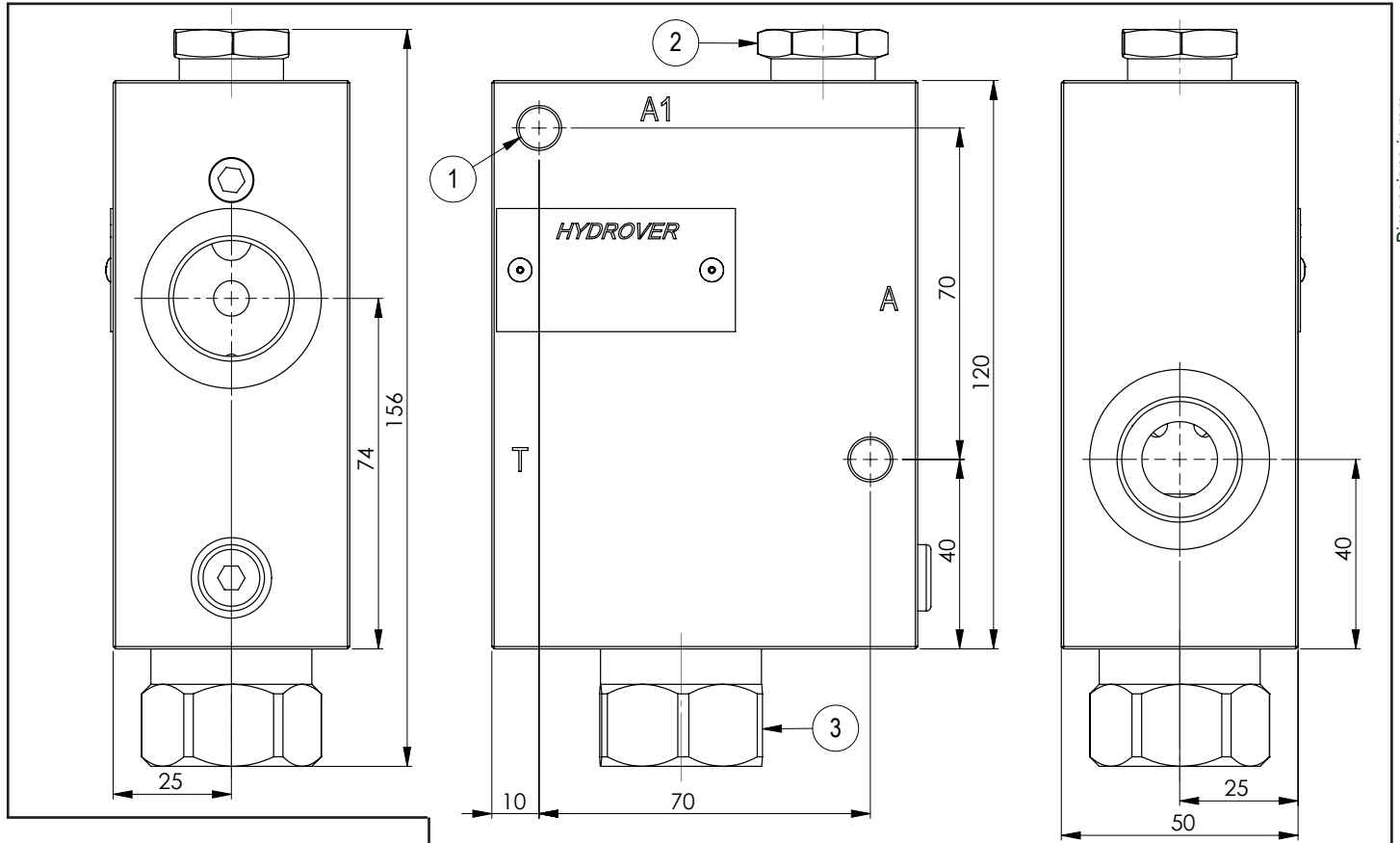
The regenerative system increases the speed but reduces the strength of the cylinder, since the oil pressure is only exerted on the rod section.

With the permanent regeneration, if the strength is insufficient, the movement will stop. With the switchable regeneration the orifice leakage will allow the piston rod chamber to relieve the pressure and then the oil pressure will be exercised on the full section of the cylinder.

Before opting for the switchable regeneration, it is recommended to check whether this increase in strength can be sustained by the machine facilities.

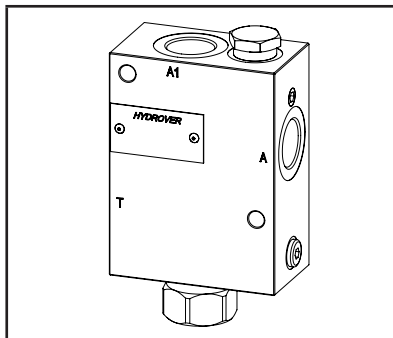
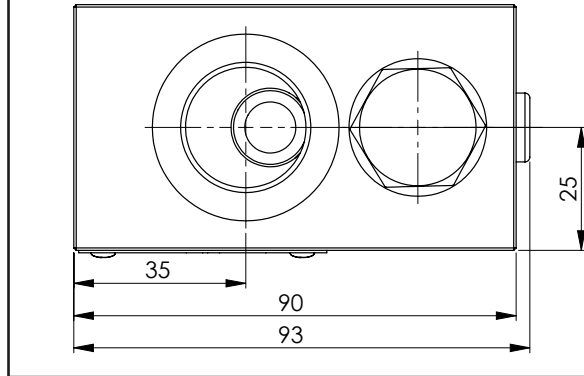
Hydraulic schematic example for log splitter



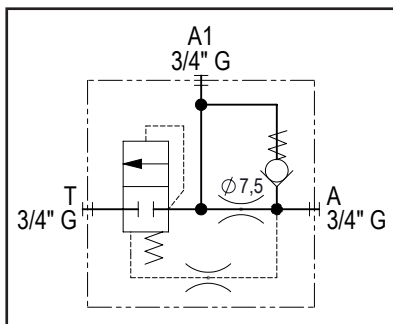


Dimensions in mm

Technical data	
Max. pressure	350 bar
Max. flow A (input)	60 lpm
Max. flow A1 (output)	120 lpm
Weight	3,9 Kg
Manifold material	Steel
A / A1 / T ports	3/4" G



N°	Description	Q.ty
1	Ø 8,5 through hole for mounting	2
2	Bosch Rexroth check valve	1
3	Pressure compensator	1



Ordering code

H	1	7	0	2	4	S	-	D	7	5
---	---	---	---	---	---	---	---	---	---	---

Hydrover product

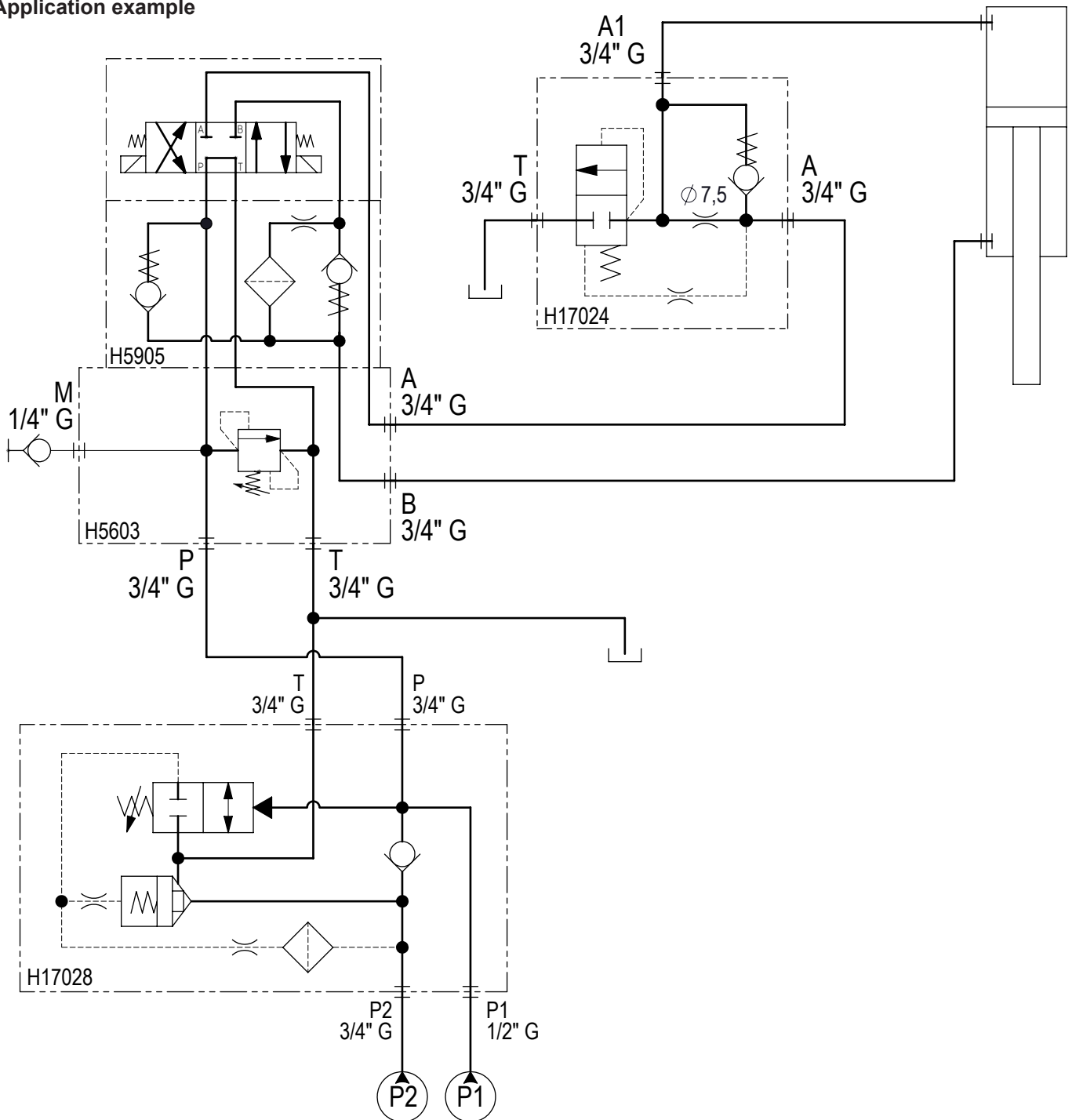
Orifice diameter A-A1
7,5 - Customized on request

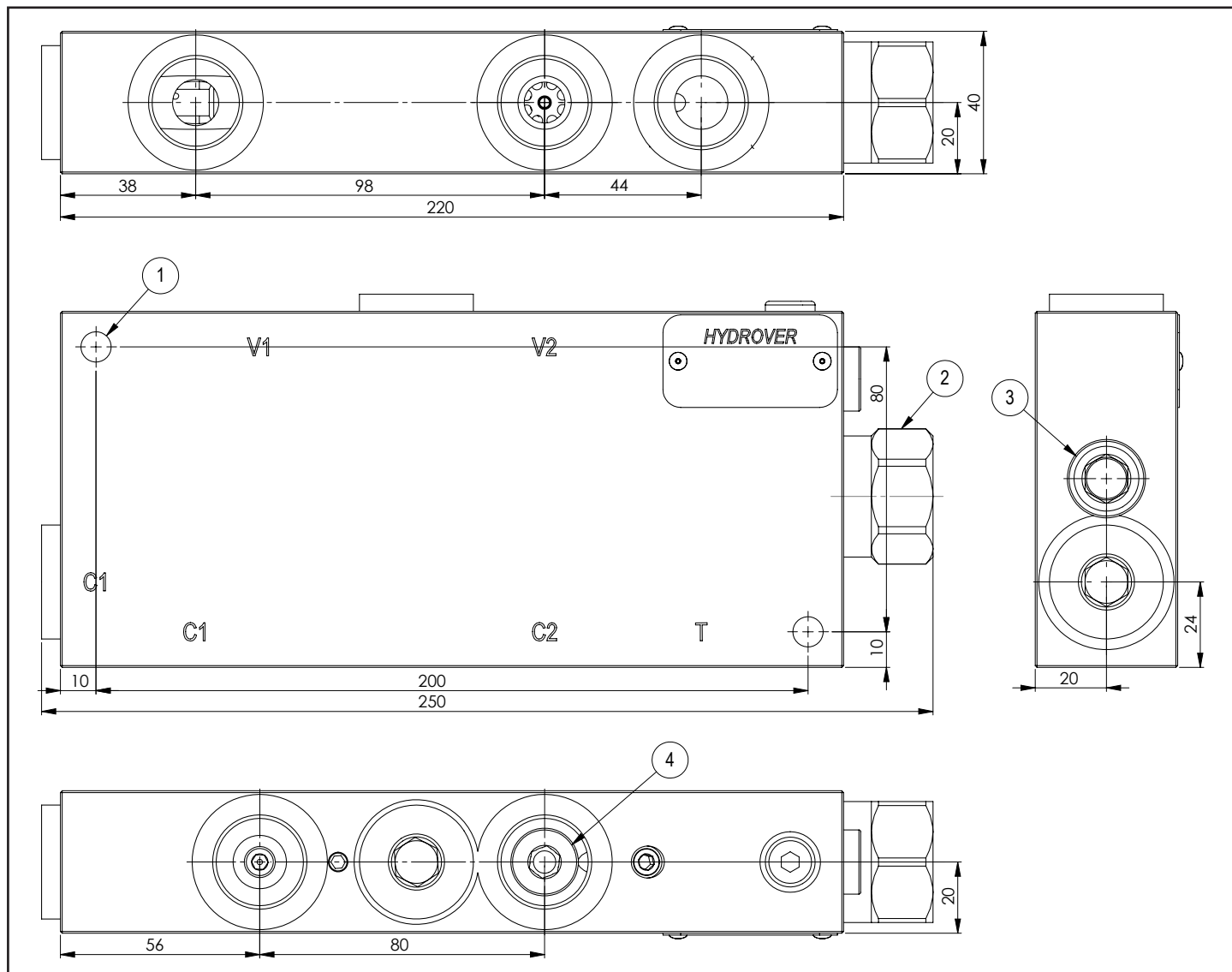
Product series
17 series - Inline valves

Manifold material
Steel

Product ID

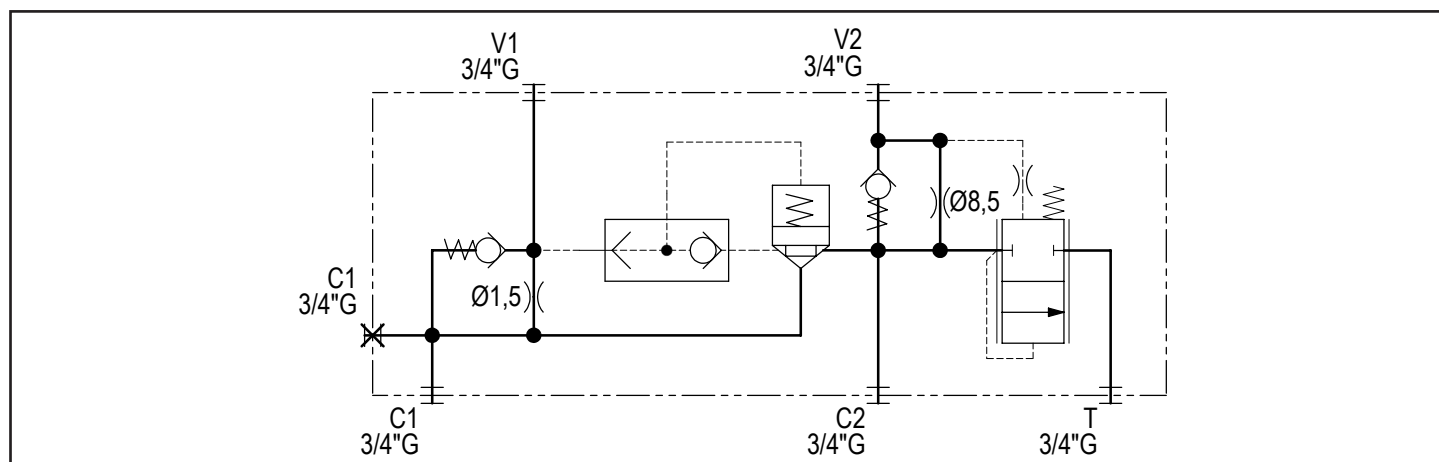
Application example





Technical data	
Max. pressure	350 bar
Max. flow input - regenerated	80 lpm - 150 lpm
Max. flow output	170 lpm
Weight	6 Kg
Manifold material	Steel
C1 / C2 / V1 / V2 / T ports	3/4" G

N°	Description	Q.ty
1	Ø 8,5 through hole for mounting	2
2	Pressure compensator	1
3	Bosch Rexroth check valve VUM1.060	1
4	Bosch Rexroth check valve VUB1-12	1



Ordering code

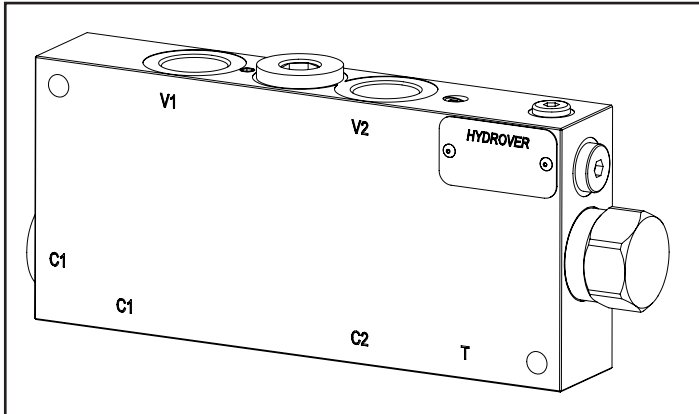
H	1	7	0	6	2	S
---	---	---	---	---	---	---

Hydrover product

Manifold material
Steel

Product series
17 series - Inline valves

Product ID



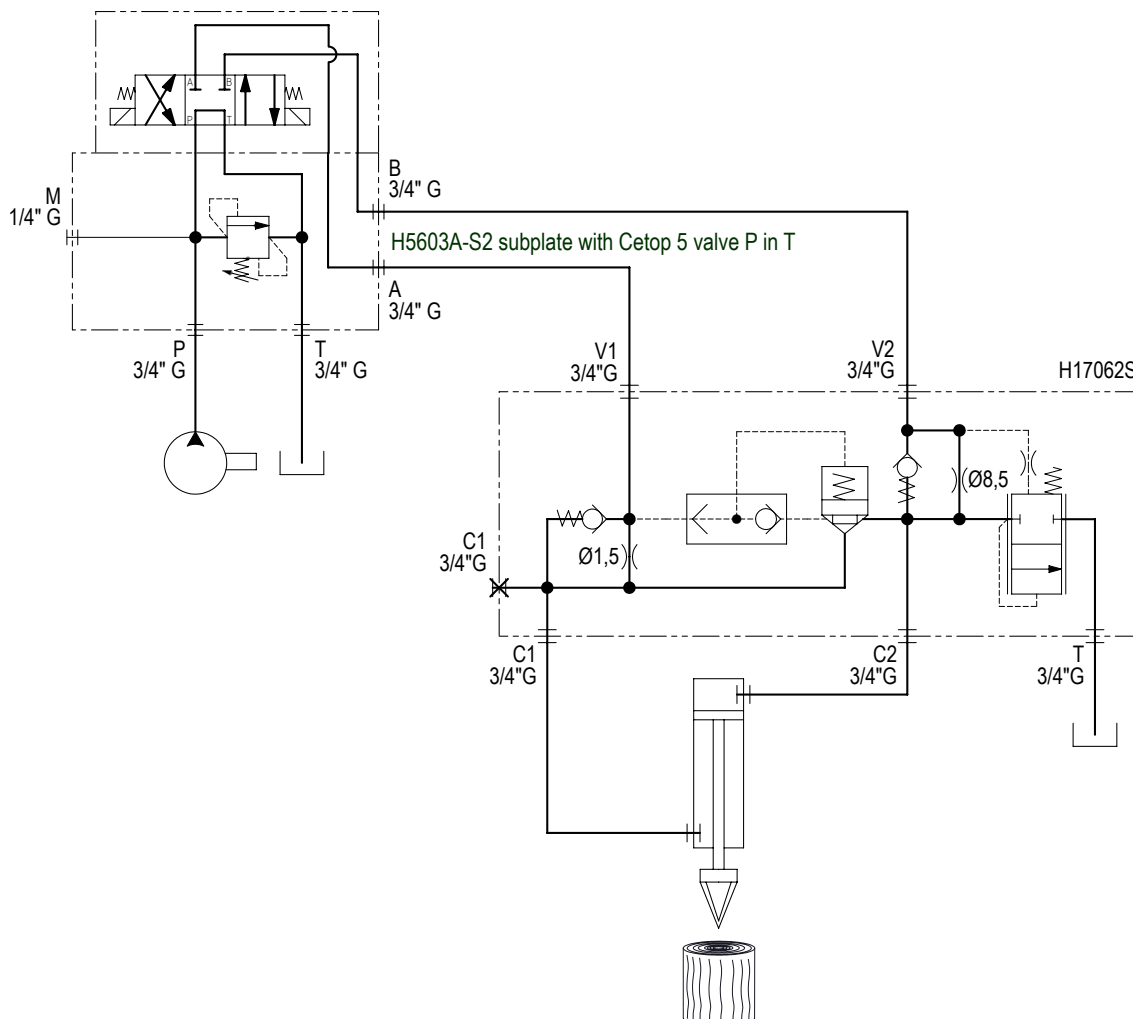
Note:

From the cylinder cap the output flow is major than the input.

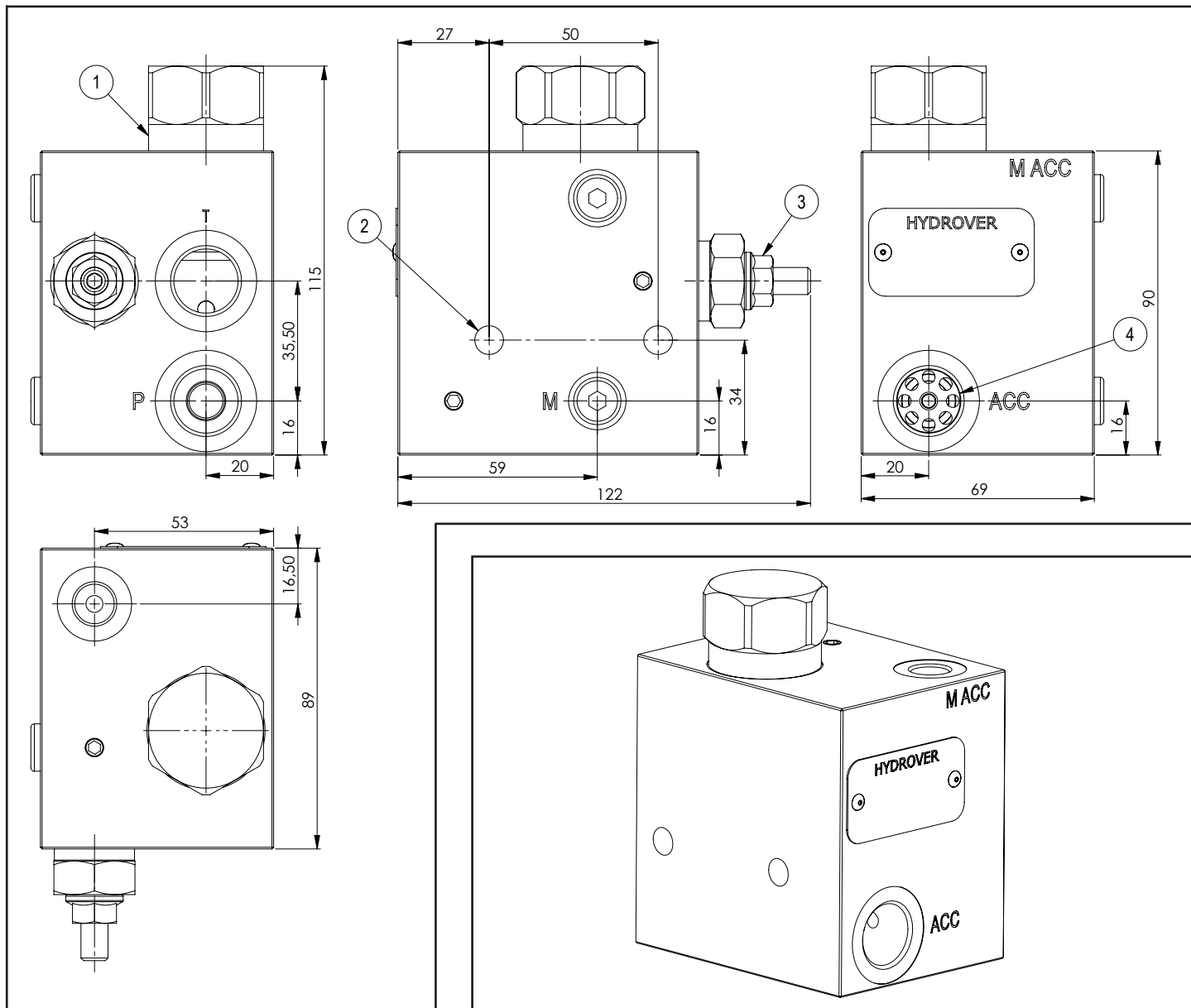
For example if the input is 80 lpm and the area cylinder ratio is 1:2, the output flow will be 160 lpm.

The quick unloading function from the H17062S allows you to dispose of 90 lpm in addition to those unloaded by the directional valve, for a maximum total flow rate of 170 lpm.

Hydraulic scheme example for log splitter

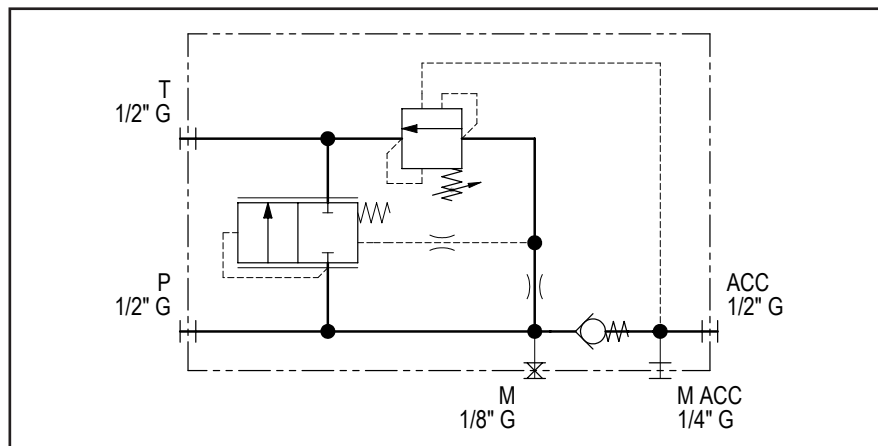


Unloading inline valve for accumulator **H17093**



Dimensions in mm

Technical data	
Max. pressure	250 bar
Max. flow	60 lpm
Weight	1,8 Kg
Manifold material	Aluminium
M port	1/8" G
M ACC port	1/4" G
P / T / ACC ports	1/2" G



N°	Description	Q.ty
1	Logic element	1
2	Ø 8,5 through hole for mounting	2
3	Bosch Rexroth priority unloading pilot operated valve VMSN-08A *	1
4	Check valve	1

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue

Ordering code

H	1	7	0	9	3	A	-	-	-	-
---	---	---	---	---	---	---	---	---	---	---

Hydrover product

Product series

17 series - Inline valves

Product ID

Manifold material

Aluminium

Priority unloading valve adjustment type

Screw

= S

Differential unload / reload unloading valve setting re-seat

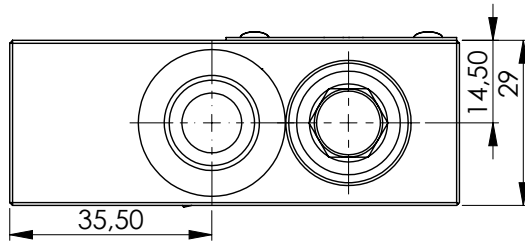
6 = 66 ± 2,5%
8 = 80 ± 2,5%

Priority unloading valve pressure range *

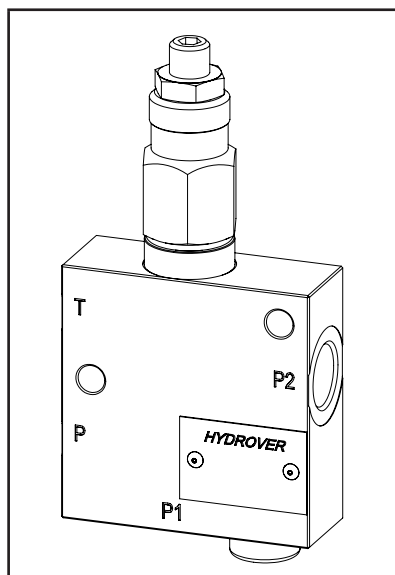
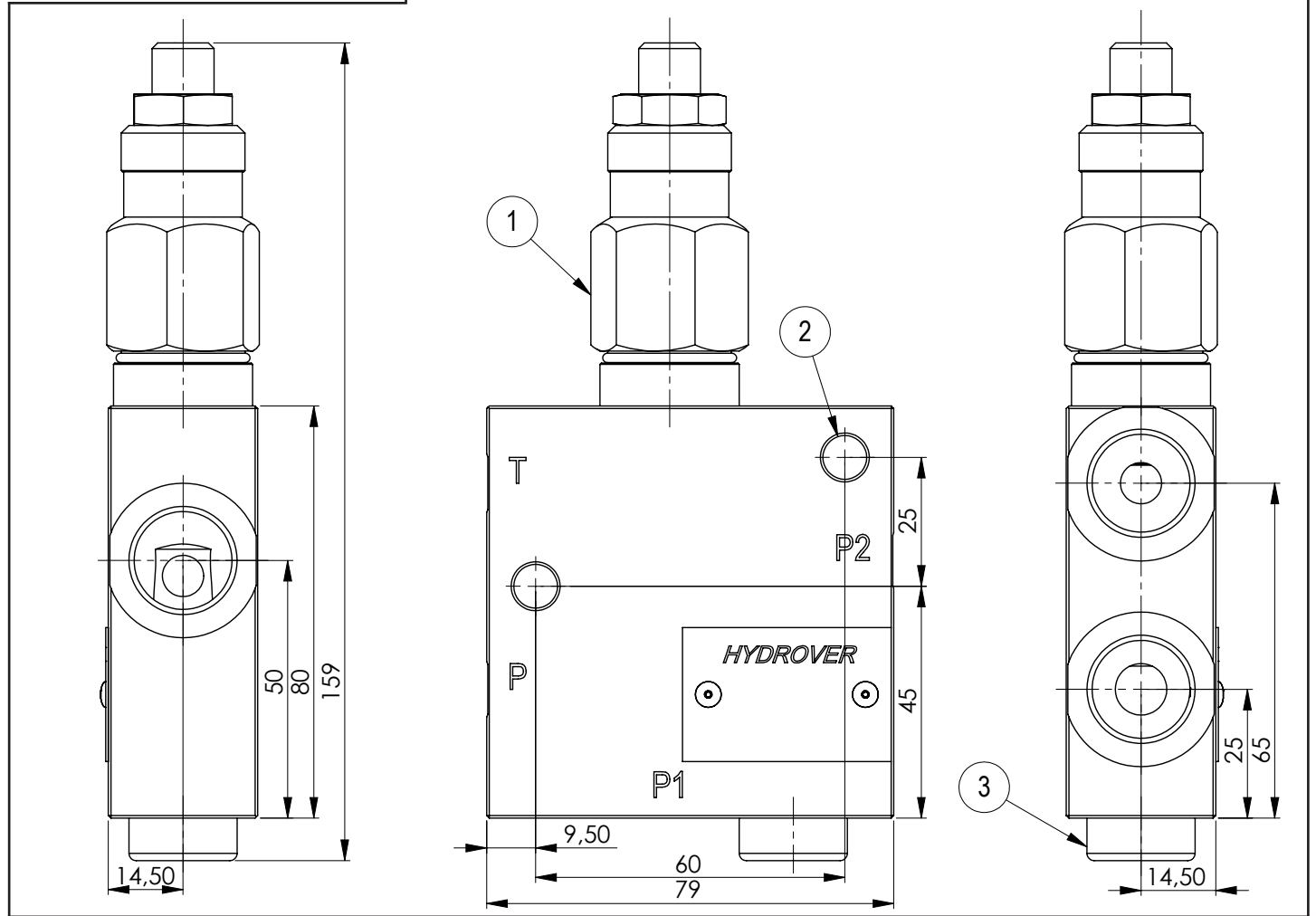
03 * = 20-40 bar
05 * = 35-70 bar
10 * = 70-140 bar
20 = 105-210 bar
35 = 175-350 bar

* Only with 6 differential unload / reload

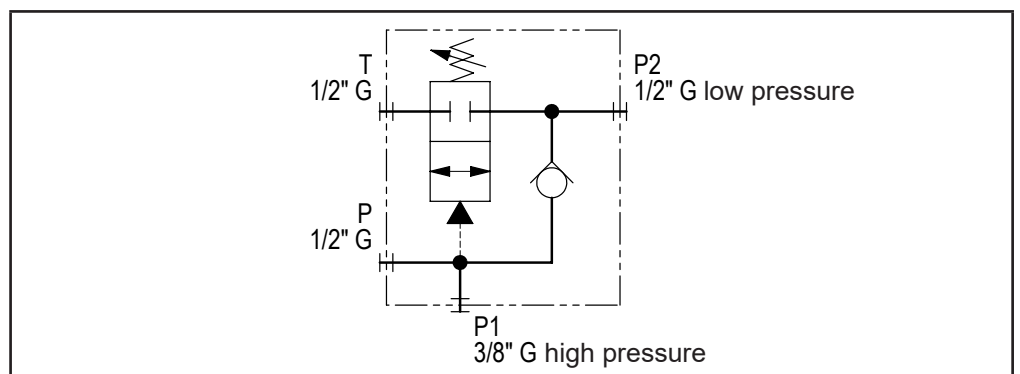
Technical data	
Max. pressure	350 bar
Max. flow	40 lpm
Weight	1,1 Kg
Manifold material	Steel
P1 port	3/8" G
P / P2 / T ports	1/2" G



Dimensions in mm



N°	Description	Q.ty
1	Directional valve normally closed	1
2	Ø 8,5 through hole for mounting	2
3	Bosch Rexroth check valve VUM1.060	1



Ordering code

H	1	7	0	2	7	S	-	_	_
---	---	---	---	---	---	---	---	---	---

Hydrover product

Product series

17 series - Inline valves

Product ID

Manifold material

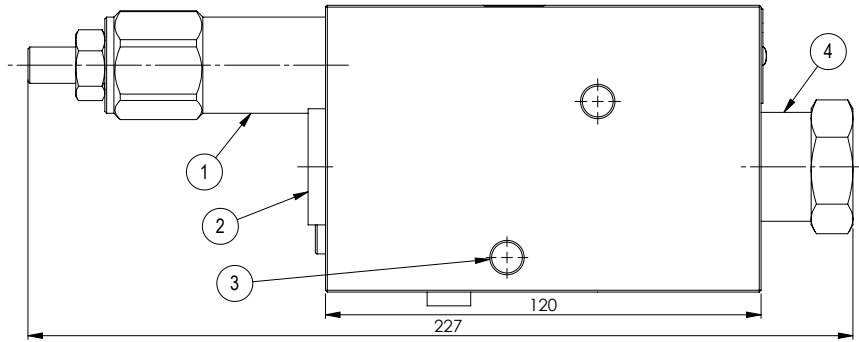
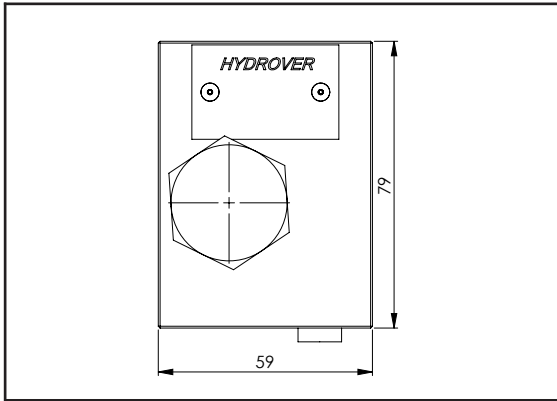
Steel

Directional valve pressure range *

- 1 = 5-35 bar
- 2 = 14-70 bar
- 3 = 35-105 bar
- 4 = 70-210 bar

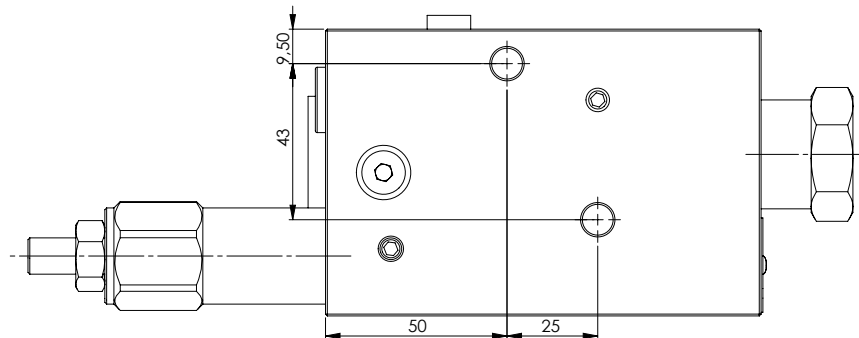
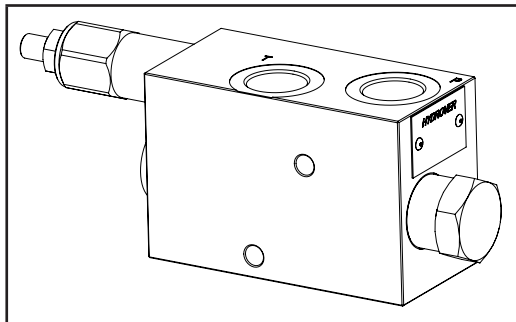
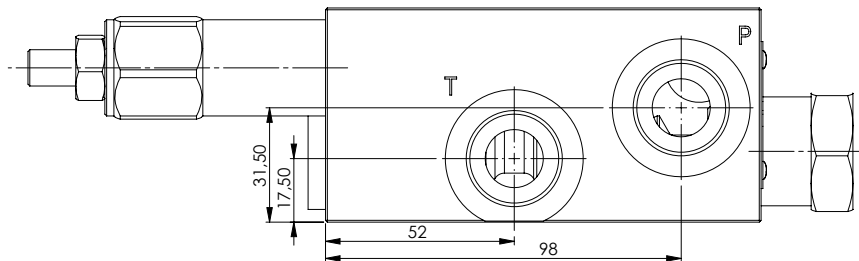
Directional valve adjustment type *

S = Screw

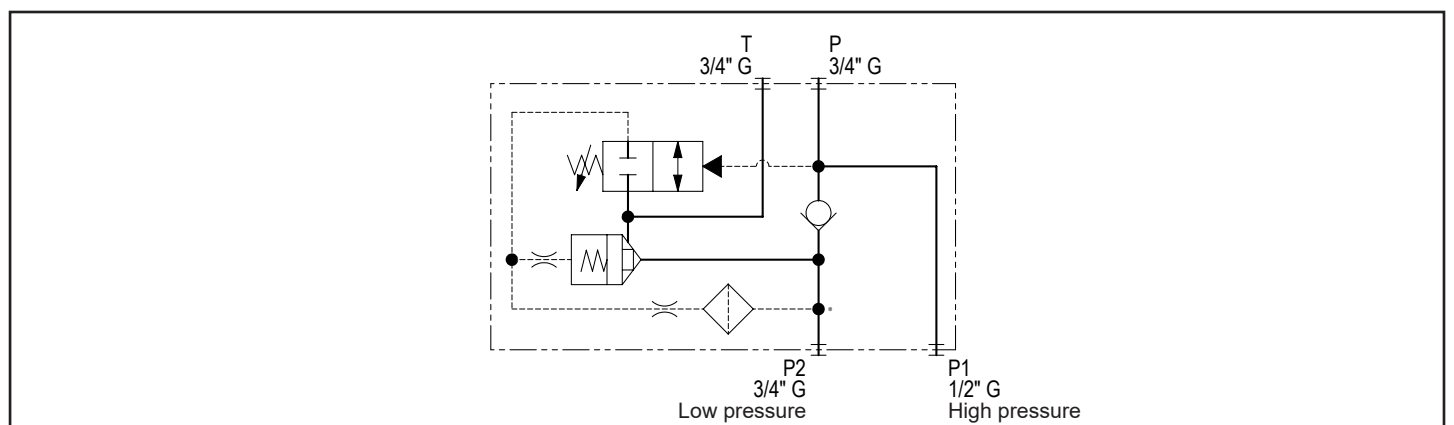
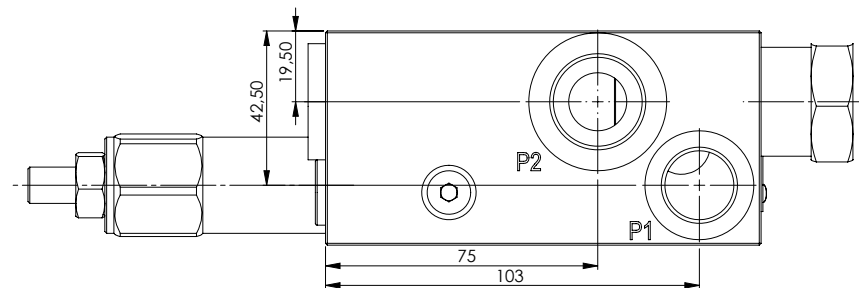


Dimensions in mm

Technical data	
Max. pressure	350 bar
Max. flow	150 lpm
Weight	4 Kg
Manifold material	Steel
P1 port	1/2" G
P / P2 / T ports	3/4" G



N°	Description	Q.ty
1	Directional valve normally closed 20-180 bar	1
2	Hydrover logic element	1
3	Ø 8,5 through hole for mounting	2
4	Bosch Rexroth check valve	1



H17028

Ordering code

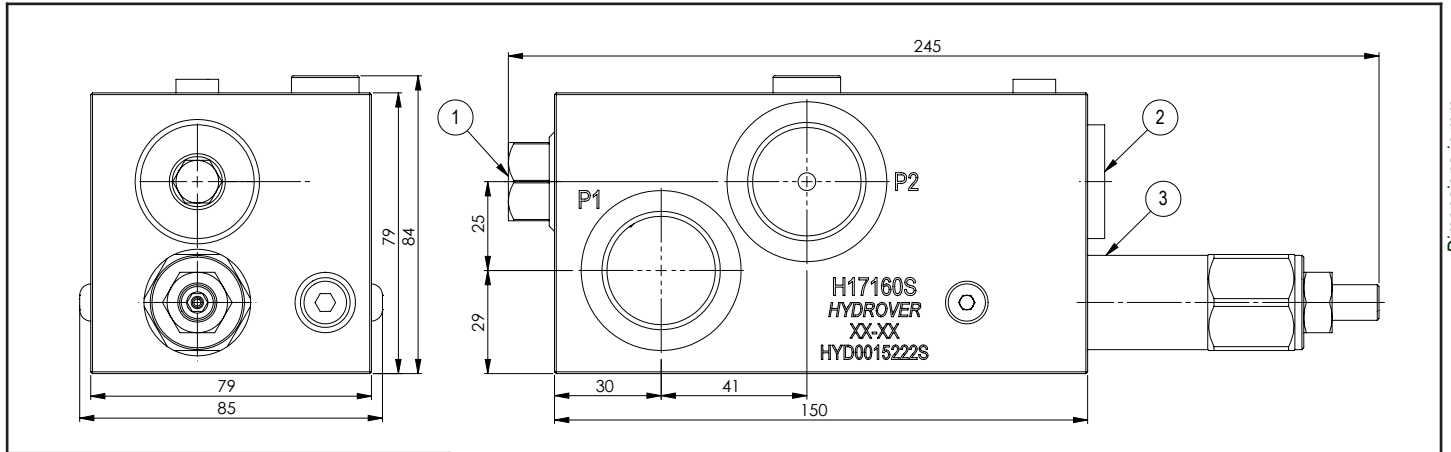
H	1	7	0	2	8	S
---	---	---	---	---	---	---

Hydrover product

Manifold material
Steel

Product series
17 series - Inline valves

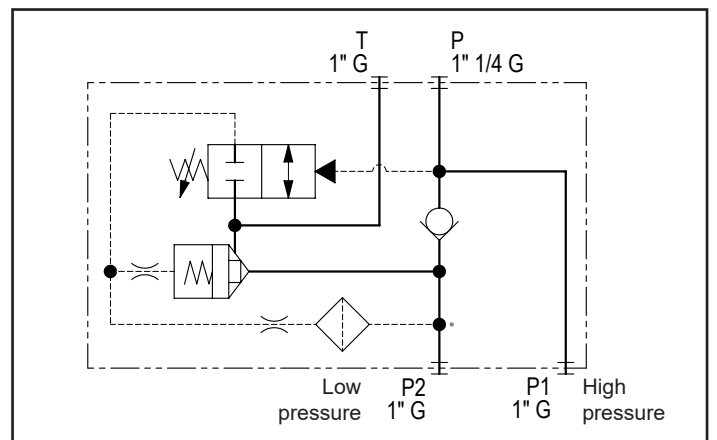
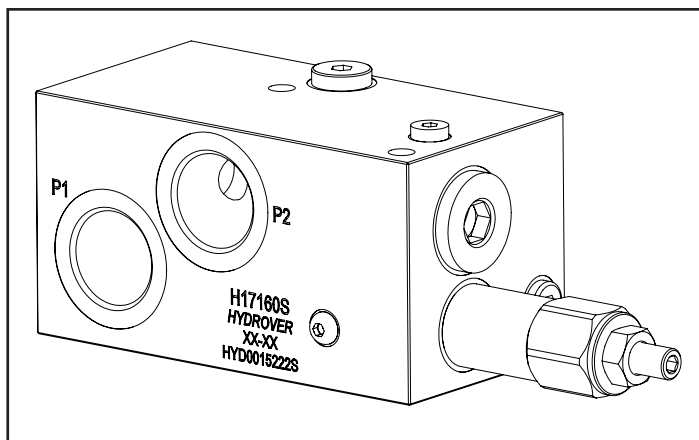
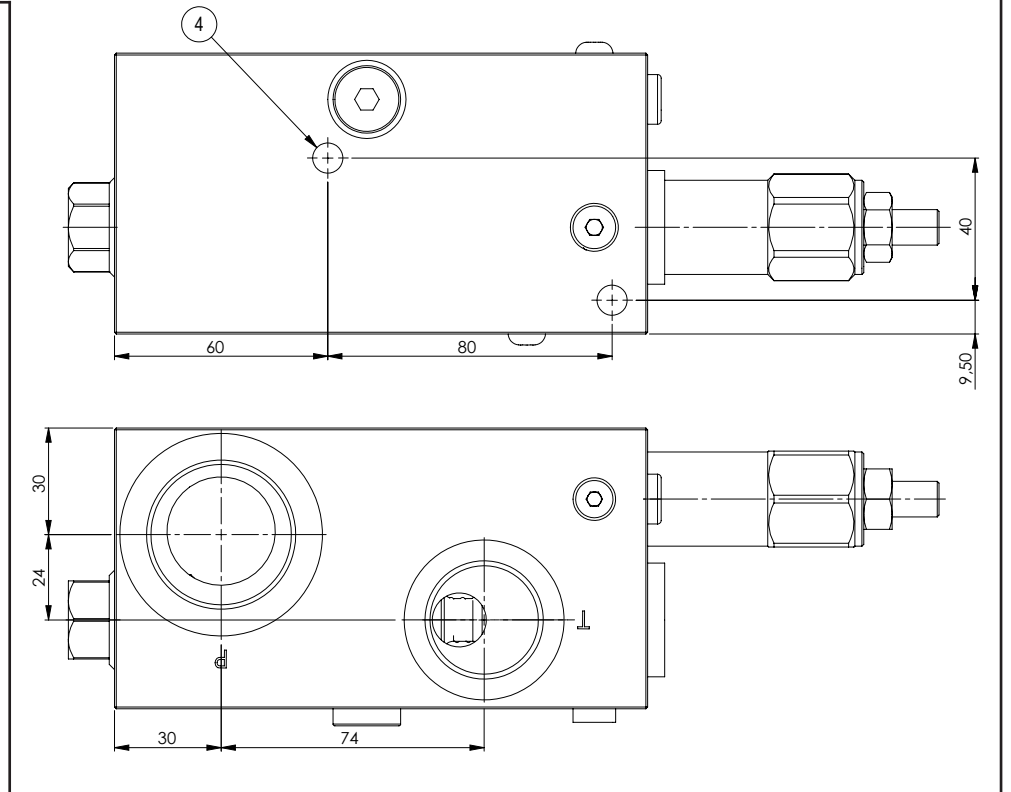
Product ID



Dimensions in mm

Technical data	
Max. pressure	350 bar
Max. flow	200 lpm
Weight	6,37 Kg
Manifold material	Steel
P1 / P2 / T ports	1" G
P port	1"1/4 G

N°	Description	Q.ty
1	Check valve	1
2	Hydrover logic element	1
3	Directional valve normally closed 20-180 bar	1
4	Ø 8,5 through hole for mounting	2



H17160

Ordering code

H	1	7	1	6	0	S
---	---	---	---	---	---	---

Hydrover product

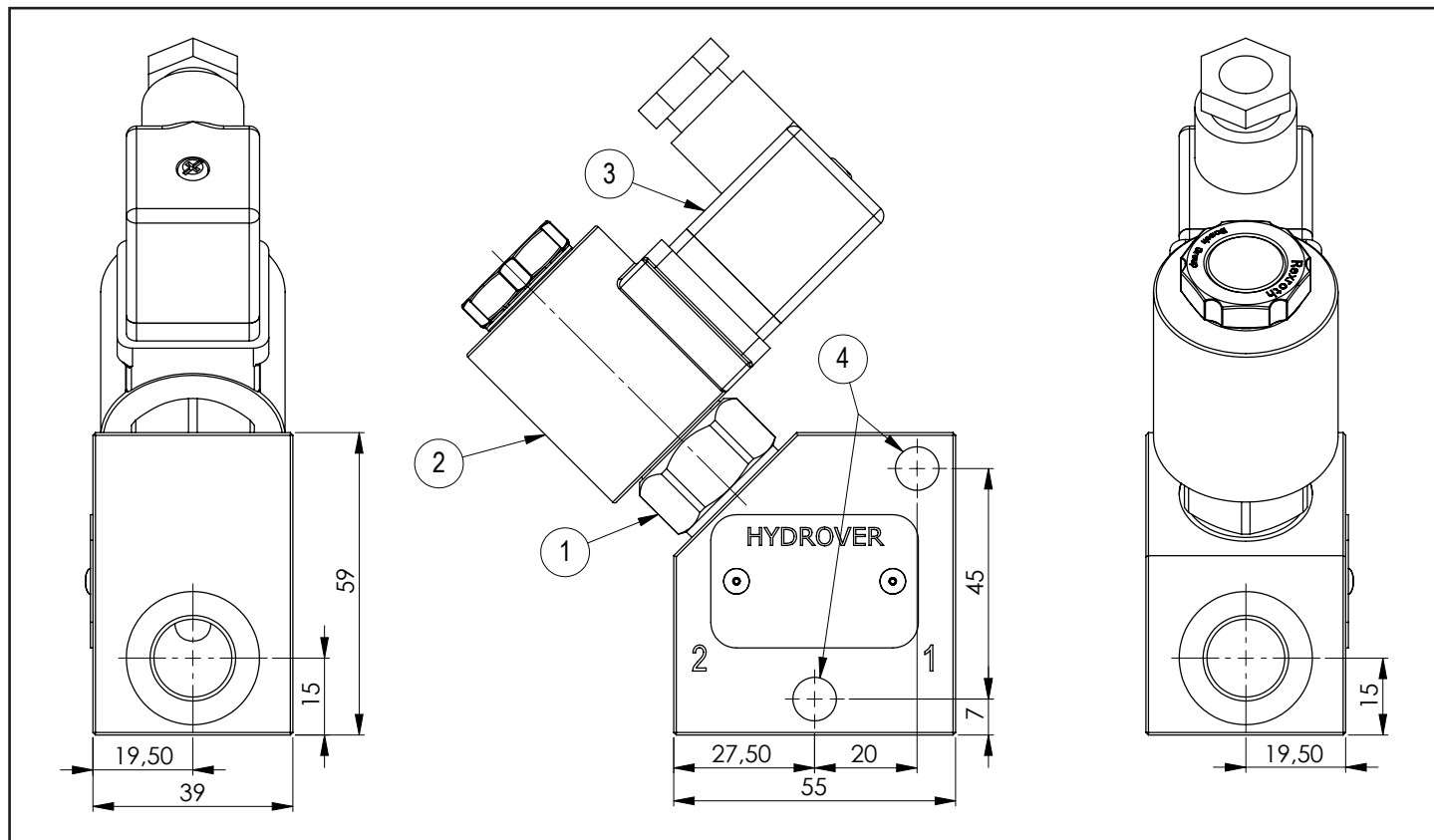
Manifold material

Steel

Product series

17 series - Inline valves

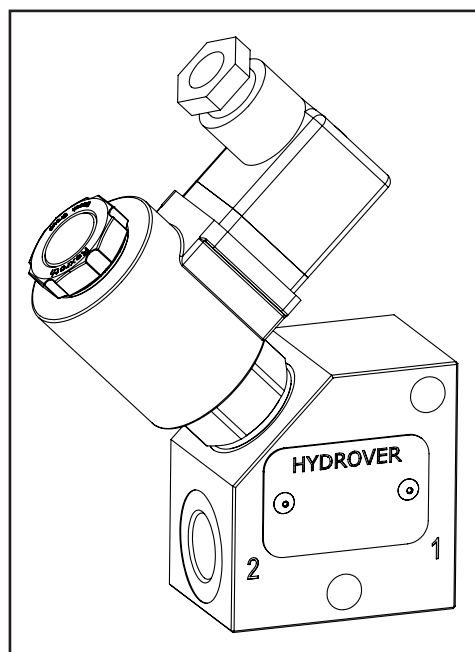
Product ID



Dimensions in mm

N°	Description	Q.ty
1	Bosch Rexroth solenoid valve VEI-16-08A-NC OD.15-X-18-Y-000000 (normally closed) or VEI-16-08A-NA OD.15-X-18-Y-000000 (normally open) depicted without manual override *	1
2	Bosch Rexroth coil D36 - CLASS H DIN 43650 ISO 4400 *	2
3	Connector DIN 43650 ISO 4400	1
4	Ø 8,5 through hole for mounting	1

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue



Technical data		
Max. flow	40 lpm *	
Ports	3/8" G	
Manifold material	Aluminium	Steel
Max. pressure	250 bar	350 bar
Weight	0,65 Kg	1,1 Kg

Ordering code



Hydrover product

Product series

17 series - Inline valves

Product ID

Manifold material

Aluminium

= A

Steel

= S

Solenoid valve spool type *

Normally open

= NA

Normally closed

= NC

Normally open double lock

= 2A

Normally closed double lock

= 2C

Solenoid valve coil connection *

1 = DIN 43650 ISO 4400

Solenoid valve coil voltage *

OB = 12V DC

OC = 24V DC

OD = 48V DC

OU = 110V RAC

AH = 230V RAC

Solenoid valve manual override *

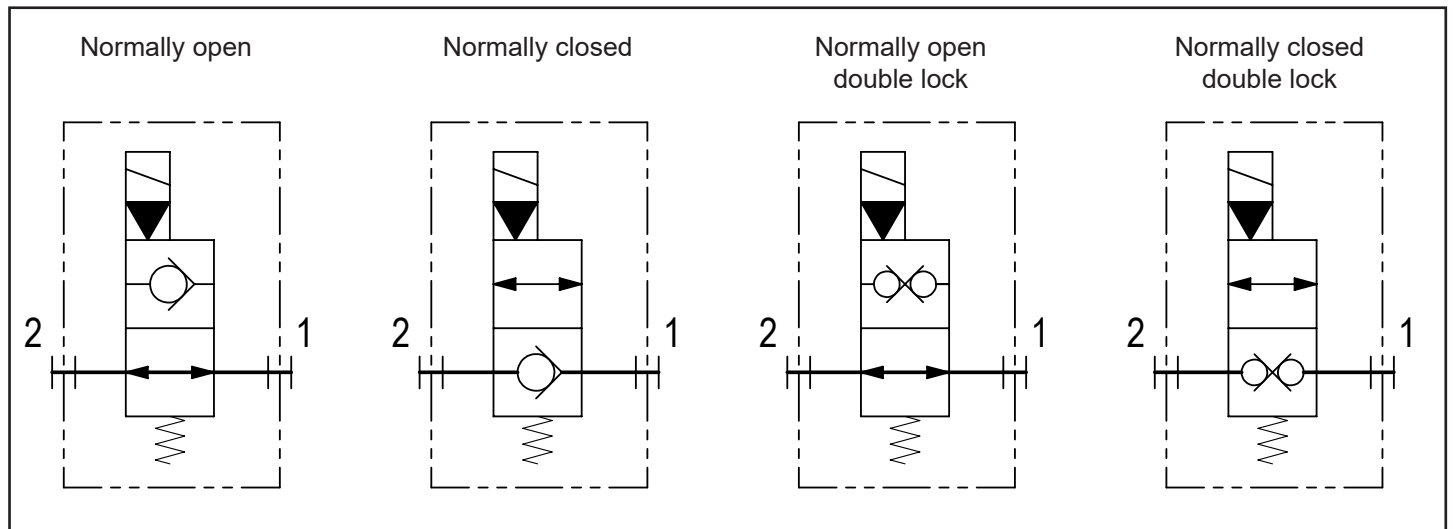
E0 = Without

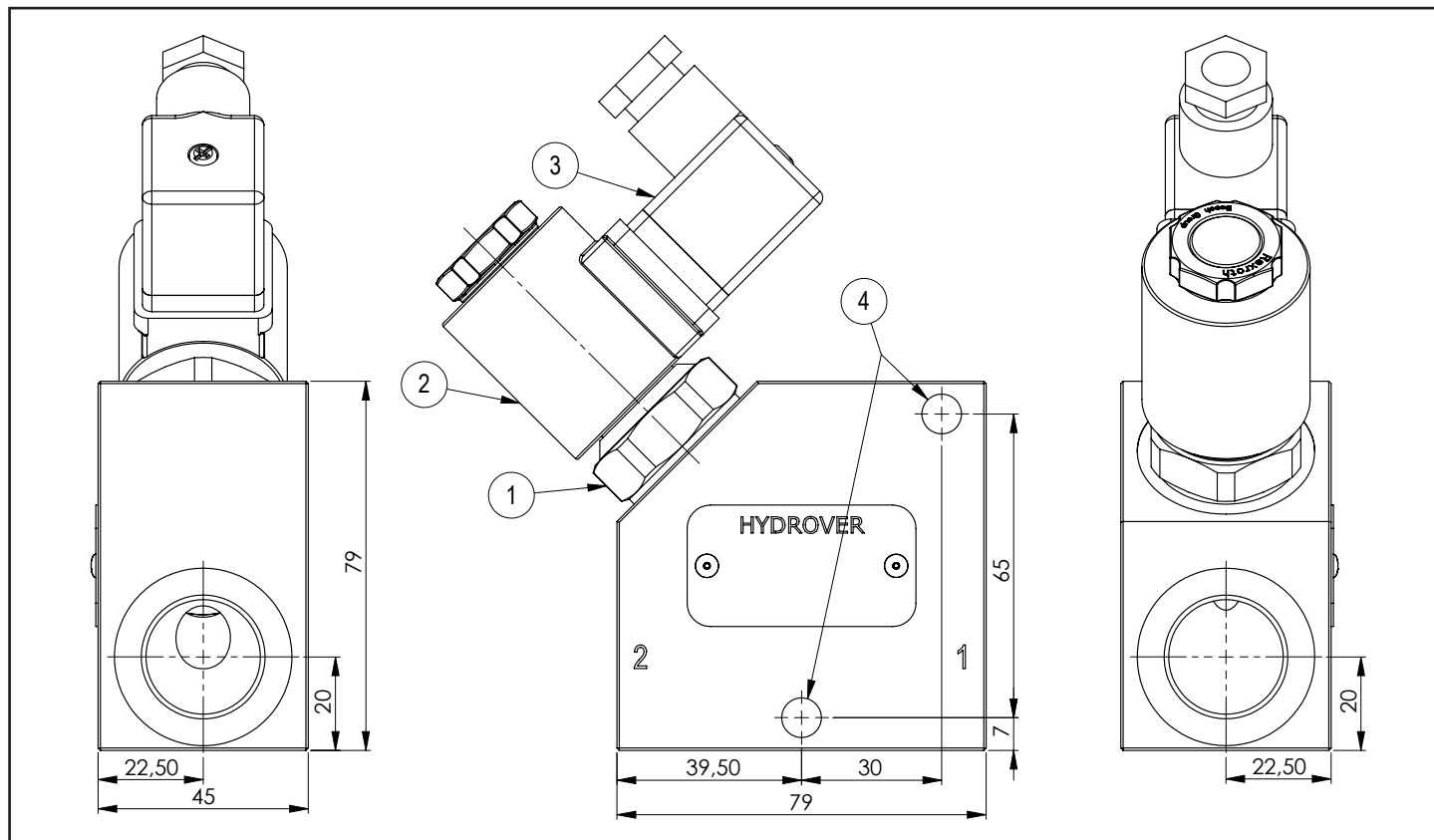
EP = Push (NA, 2A)

EV = Screw (NC, 2C)

EG = Push and twist (NA, 2A)

* Omit if not required. For example, to order the product without valves, omit the solenoid valve spool type, manual override, coil connection and coil voltage options: H17110A.
The manifold will still be provided with the corresponding cavity.

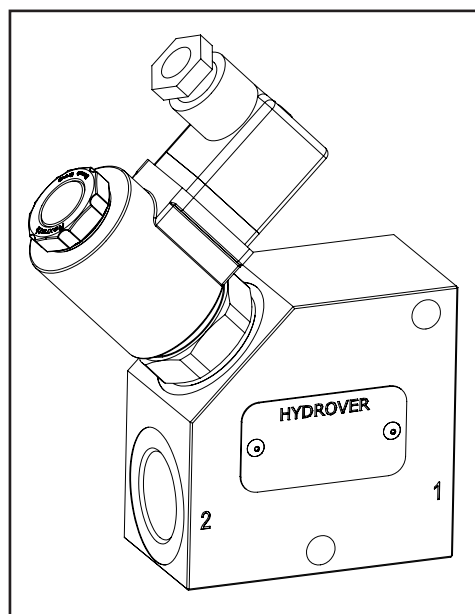




Dimensions in mm

N°	Description	Q.ty
1	Bosch Rexroth solenoid valve VEI-16-12G-NC OD.15-X-17-Y-000000 (normally closed) or VEI-16-12G-NA OD.15-X-17-Y-000000 (normally open) depicted without manual override *	1
2	Bosch Rexroth coil D36 - CLASS H DIN 43650 ISO 4400 *	2
3	Connector DIN 43650 ISO 4400	1
4	Ø 8,5 through hole for mounting	1

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue



Technical data		
Max. flow	70 lpm *	
Ports	3/4" G	
Manifold material	Aluminium	Steel
Max. pressure	250 bar	350 bar
Weight	1,05 Kg	2,1 Kg

Ordering code



Hydrover product

Product series

17 series - Inline valves

Product ID

Manifold material

Aluminium

= A

Steel

= S

Solenoid valve spool type *

Normally open

= NA

Normally closed

= NC

Normally open double lock

= 2A

Normally closed double lock

= 2C

Solenoid valve coil connection *

1 = DIN 43650 ISO 4400

Solenoid valve coil voltage *

OB = 12V DC

OC = 24V DC

OD = 48V DC

OU = 110V RAC

AH = 230V RAC

Solenoid valve manual override *

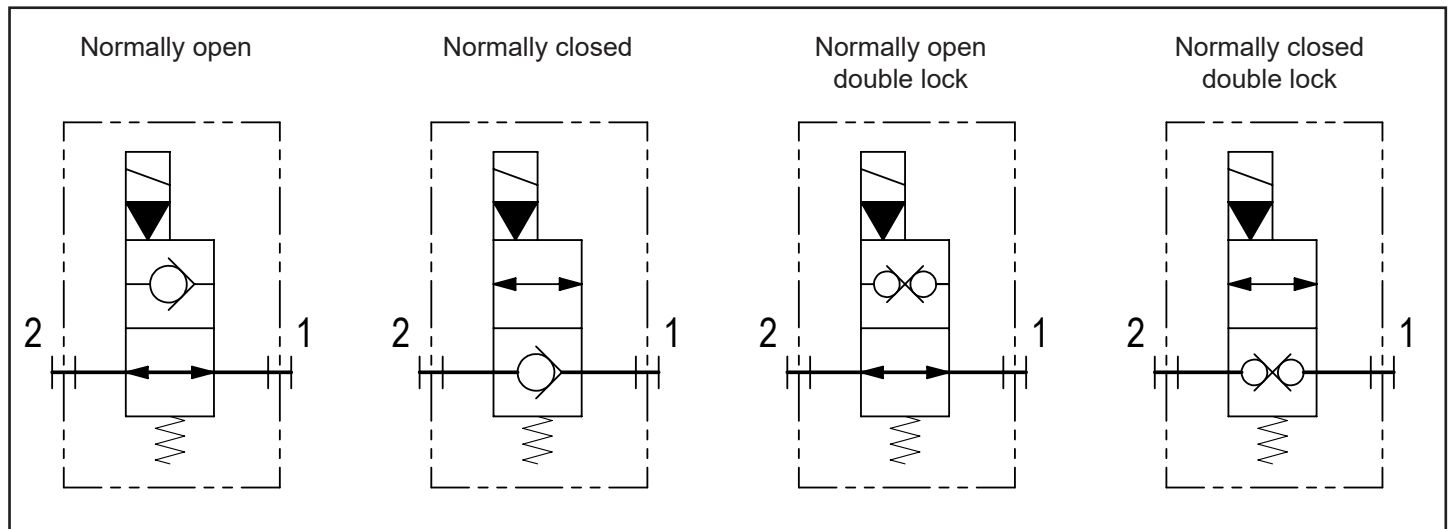
E0 = Without

EP = Push (NA, 2A)

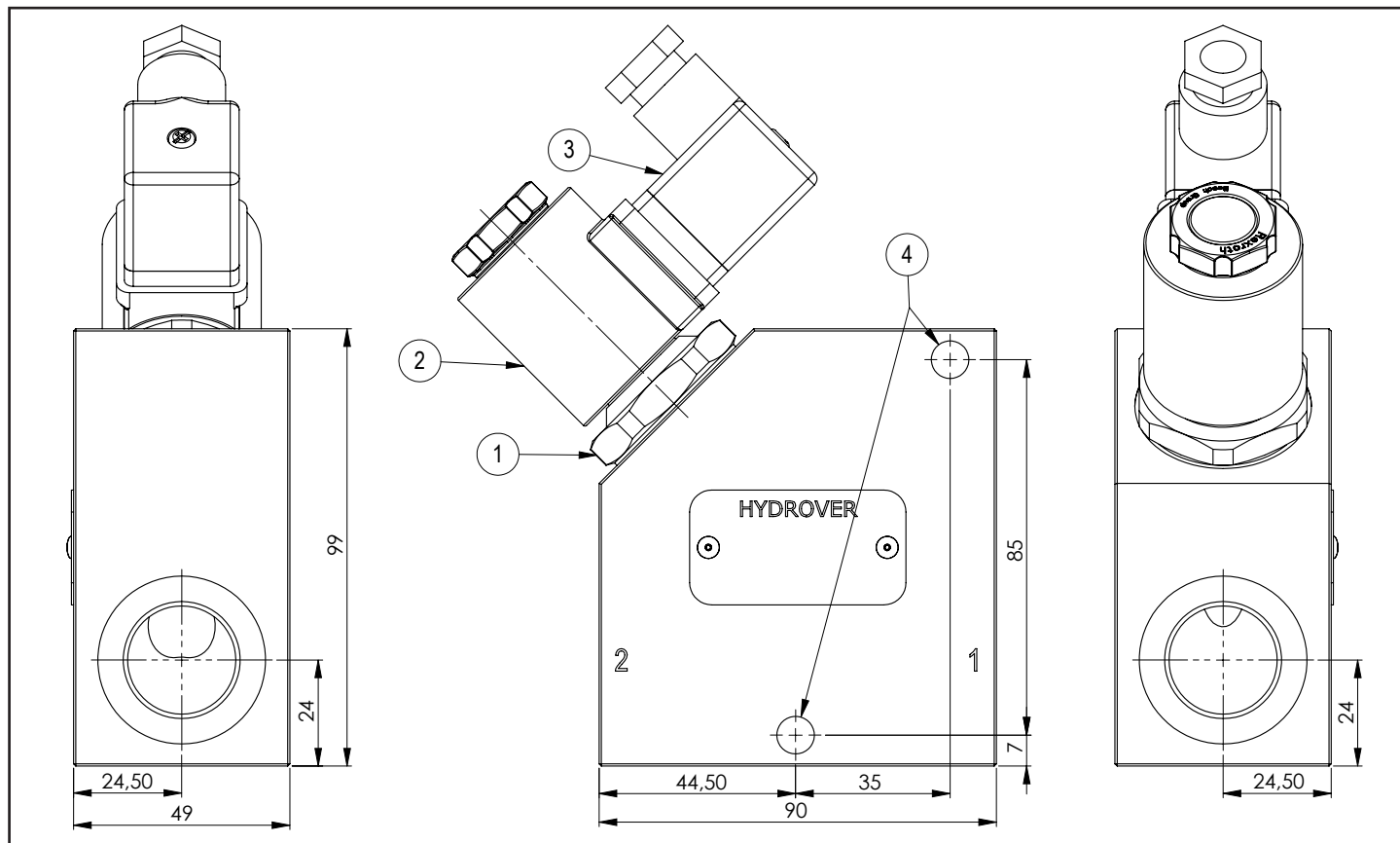
EV = Screw (NC, 2C)

EG = Push and twist (NA, 2A)

* Omit if not required. For example, to order the product without valves, omit the solenoid valve spool type, manual override, coil connection and coil voltage options: H17111A.
The manifold will still be provided with the corresponding cavity.

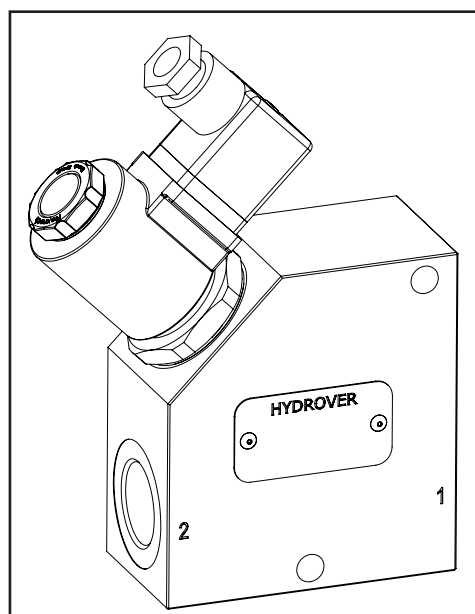


Dimensions in mm



N°	Description	Q.ty
1	Bosch Rexroth solenoid valve VEI-16-16G-NC OD.15-X-21-Y-000000 (normally closed) or VEI-16-16G-NA OD.15-X-21-Y-000000 (normally open) depicted without manual override *	1
2	Bosch Rexroth coil D36 - CLASS H DIN 43650 ISO 4400 *	2
3	Connector DIN 43650 ISO 4400	1
4	Ø 8,5 through hole for mounting	1

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue



Technical data		
Max. flow	100 lpm *	
Ports	3/4" G	
Manifold material	Aluminium	Steel
Max. pressure	250 bar	350 bar
Weight	1,5 Kg	3,1 Kg

Ordering code



Hydrover product

Product series

17 series - Inline valves

Product ID

Manifold material

Aluminium

= A

Steel

= S

Solenoid valve spool type *

Normally open

= NA

Normally closed

= NC

Normally open double lock

= 2A

Normally closed double lock

= 2C

Solenoid valve coil connection *

1 = DIN 43650 ISO 4400

Solenoid valve coil voltage *

OB = 12V DC

OC = 24V DC

OD = 48V DC

OU = 110V RAC

AH = 230V RAC

Solenoid valve manual override *

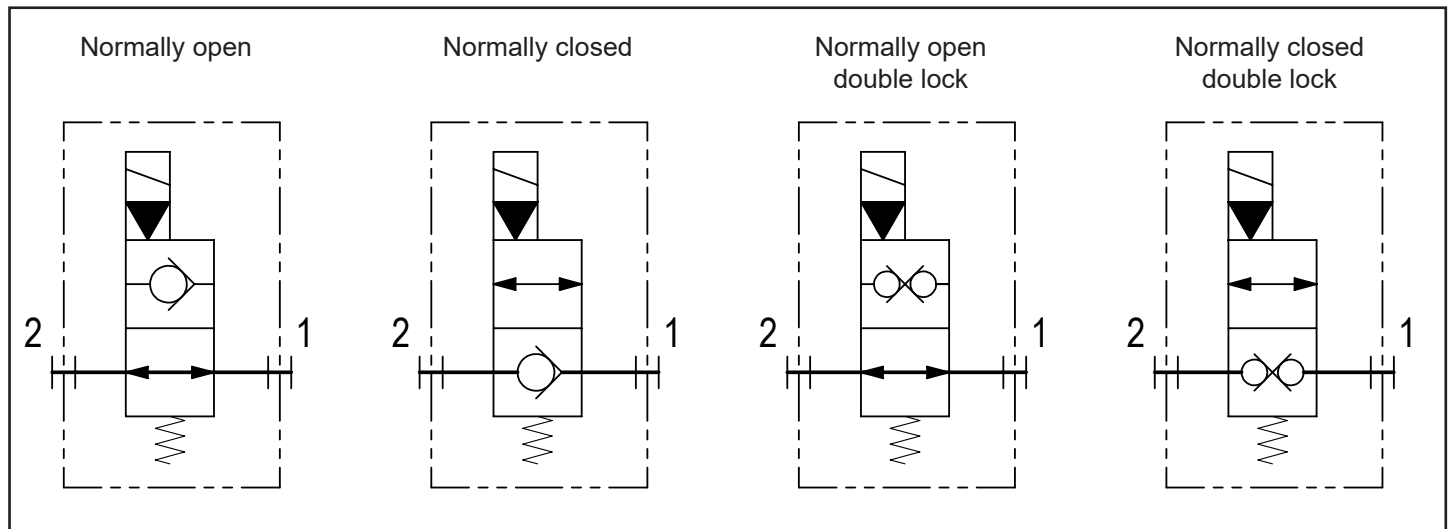
E0 = Without

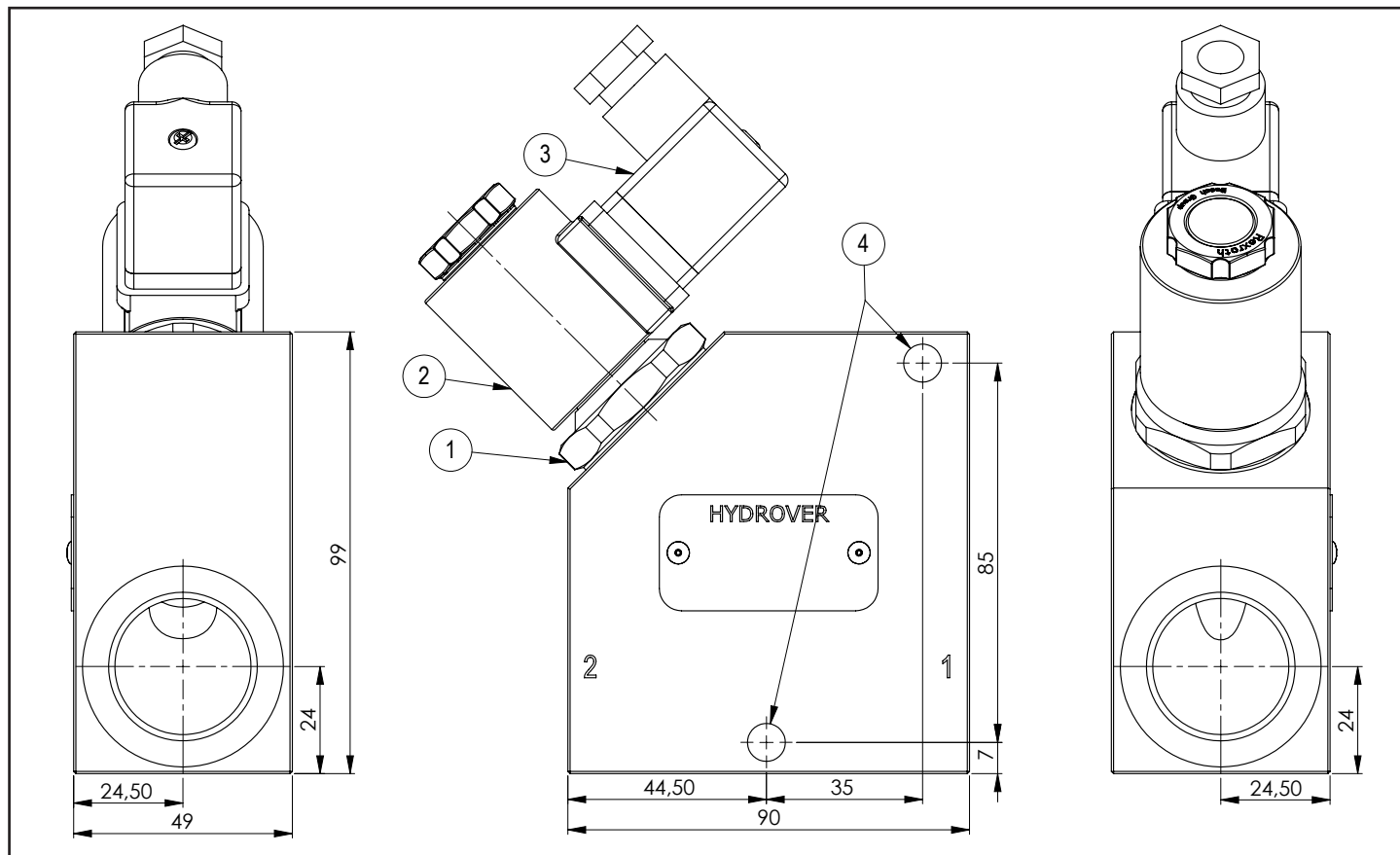
EP = Push (NA, 2A)

EV = Screw (NC, 2C)

EG = Push and twist (NA, 2A)

* Omit if not required. For example, to order the product without valves, omit the solenoid valve spool type, manual override, coil connection and coil voltage options: H17113A.
The manifold will still be provided with the corresponding cavity.

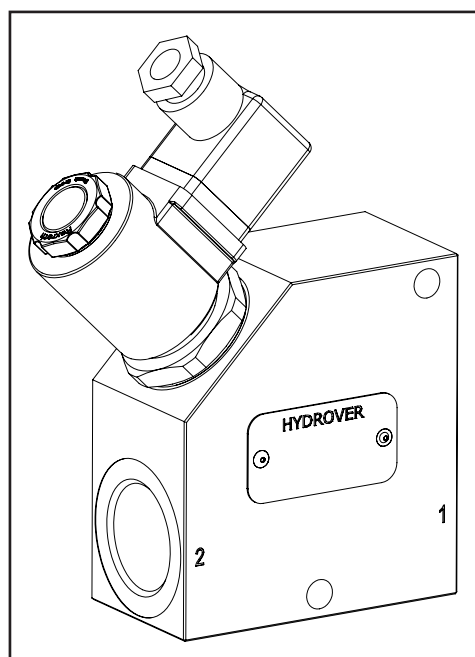




Dimensions in mm

N°	Description	Q.ty
1	Bosch Rexroth solenoid valve VEI-16-16G-NC OD.15-X-21-Y-000000 (normally closed) or VEI-16-16G-NA OD.15-X-21-Y-000000 (normally open) depicted without manual override *	1
2	Bosch Rexroth coil D36 - CLASS H DIN 43650 ISO 4400 *	2
3	Connector DIN 43650 ISO 4400	1
4	Ø 8,5 through hole for mounting	1

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue



Technical data		
Max. flow	150 lpm *	
Ports	1" G	
Manifold material	Aluminium	Steel
Max. pressure	250 bar	350 bar
Weight	1,4 Kg	3 Kg

Ordering code



Hydrover product

Product series

17 series - Inline valves

Product ID

Manifold material

Aluminium

= A

Steel

= S

Solenoid valve spool type *

Normally open

= NA

Normally closed

= NC

Normally open double lock

= 2A

Normally closed double lock

= 2C

Solenoid valve coil connection *

1 = DIN 43650 ISO 4400

Solenoid valve coil voltage *

OB = 12V DC

OC = 24V DC

OD = 48V DC

OU = 110V RAC

AH = 230V RAC

Solenoid valve manual override *

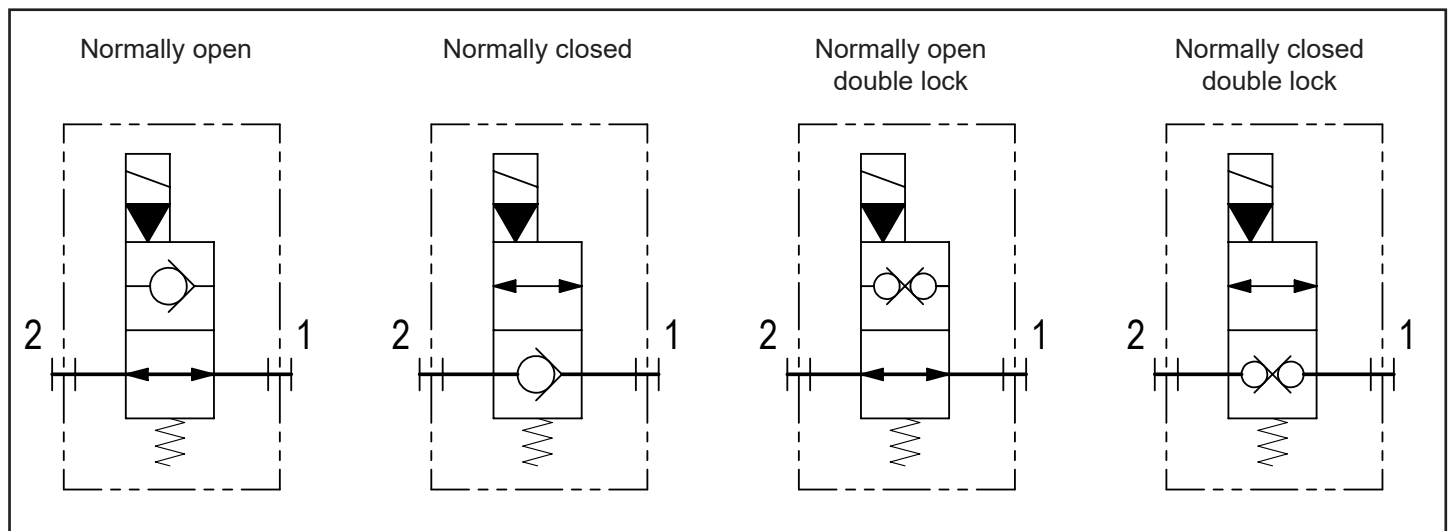
E0 = Without

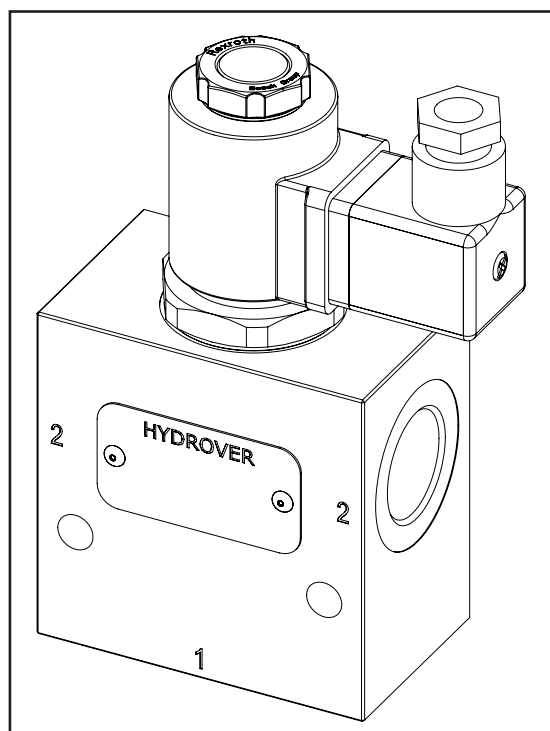
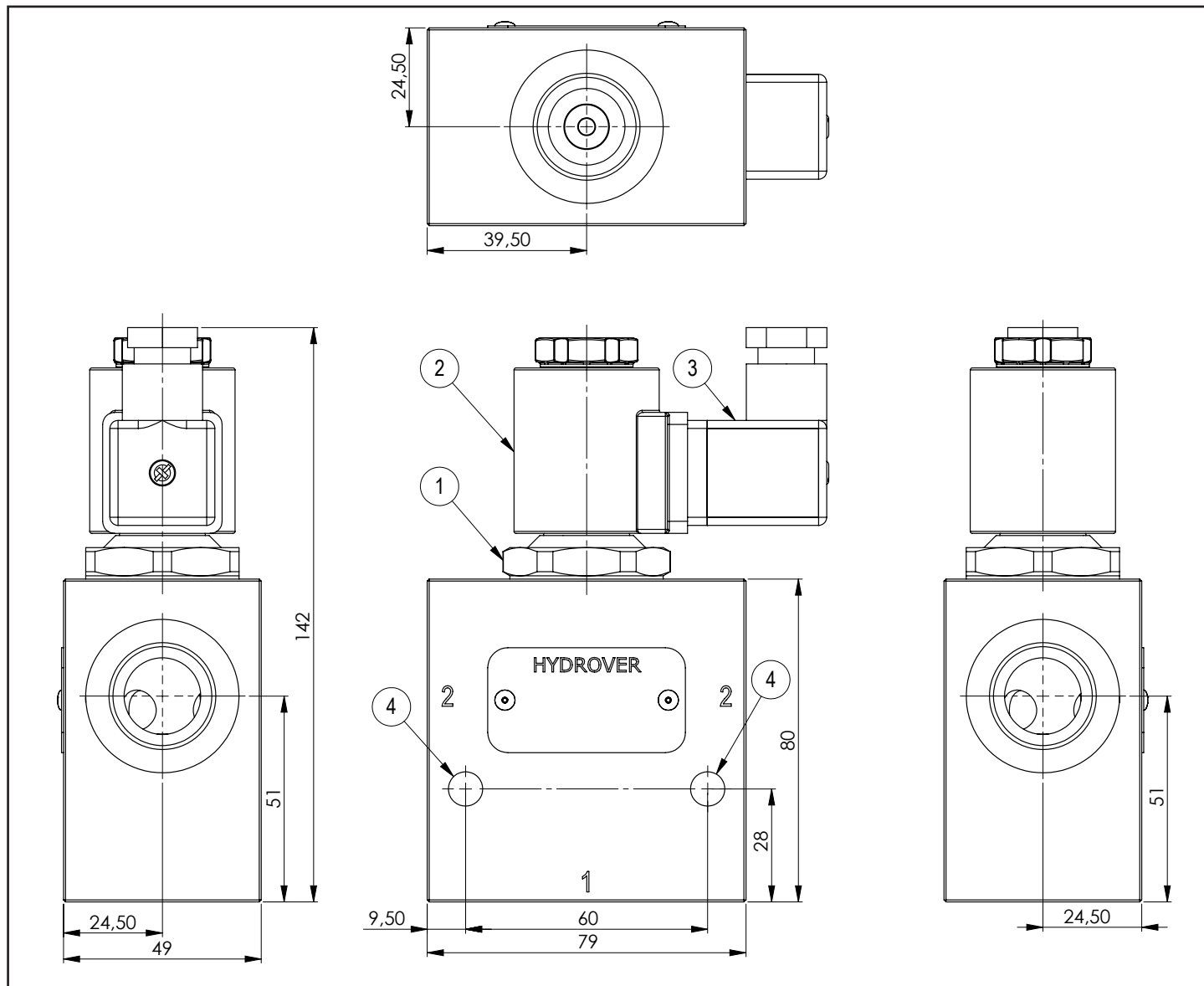
EP = Push (NA, 2A)

EV = Screw (NC, 2C)

EG = Push and twist (NA, 2A)

* Omit if not required. For example, to order the product without valves, omit the solenoid valve spool type, manual override, coil connection and coil voltage options: H17112A.
The manifold will still be provided with the corresponding cavity.





Technical data	
Max. flow	100 lt/1 *
Max. pressure	250 bar
Weight	1,2 Kg
Manifold material	Aluminium
Ports	3/4" G

N°	Description	Q.ty
1	Bosch Rexroth solenoid valve VEI-16-16G-NC OD.15-X-21-Y-000000 (normally closed) or VEI-16-16G-NA OD.15-X-21-Y-000000 (normally open) depicted without manual override *	1
2	Bosch Rexroth coil D36 - CLASS H DIN 43650 ISO 4400 *	2
3	Connector DIN 43650 ISO 4400	1
4	Ø 8,5 through hole for mounting	1

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue

Ordering code



Hydrover product

Product series

17 series - Inline valves

Product ID

Manifold material

Aluminium

Solenoid valve spool type *

- Normally open = NA
- Normally closed = NC
- Normally open double lock = 2A
- Normally closed double lock = 2C

Solenoid valve coil connection *

1 = DIN 43650 ISO 4400

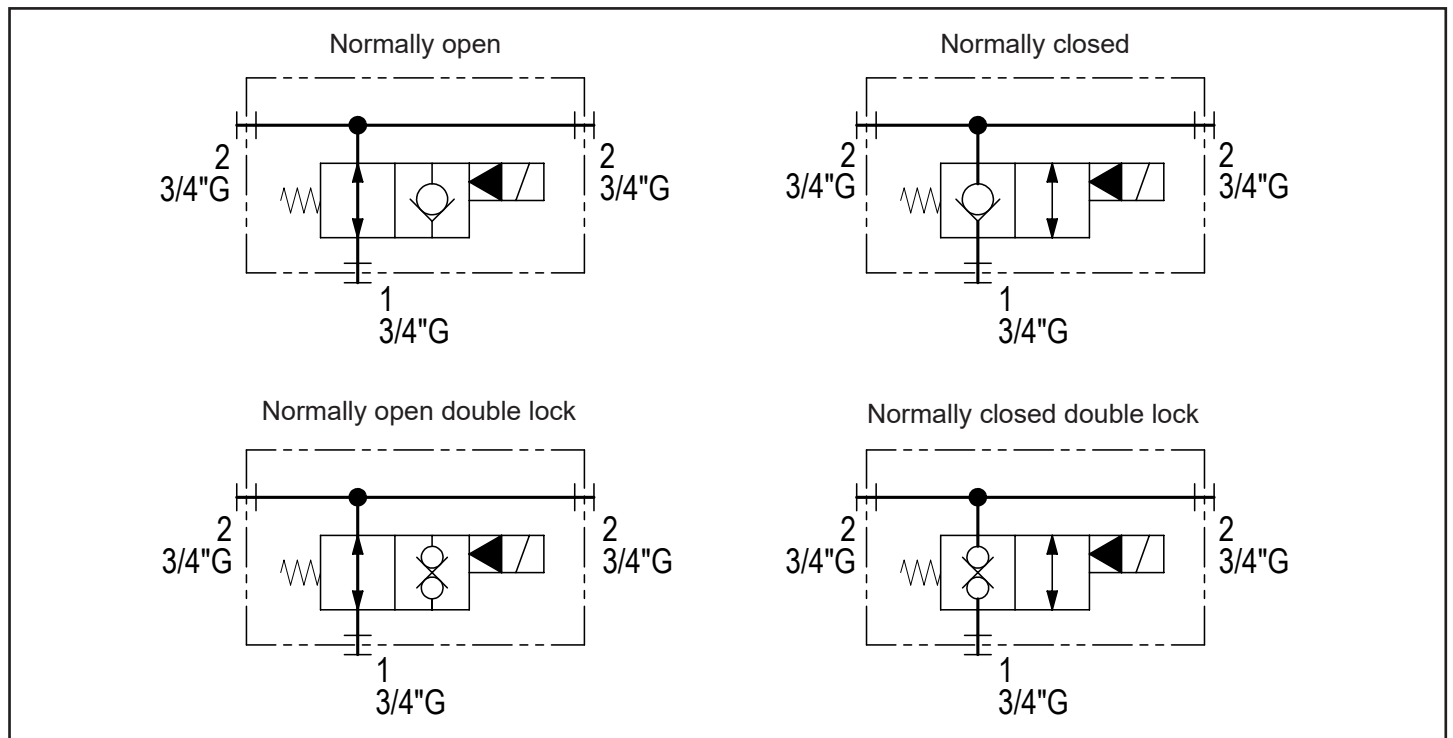
Solenoid valve coil voltage *

- OB = 12V DC
- OC = 24V DC
- OD = 48V DC
- OU = 110V RAC
- AH = 230V RAC

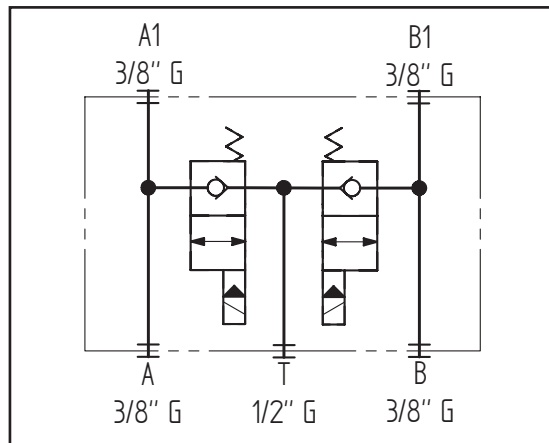
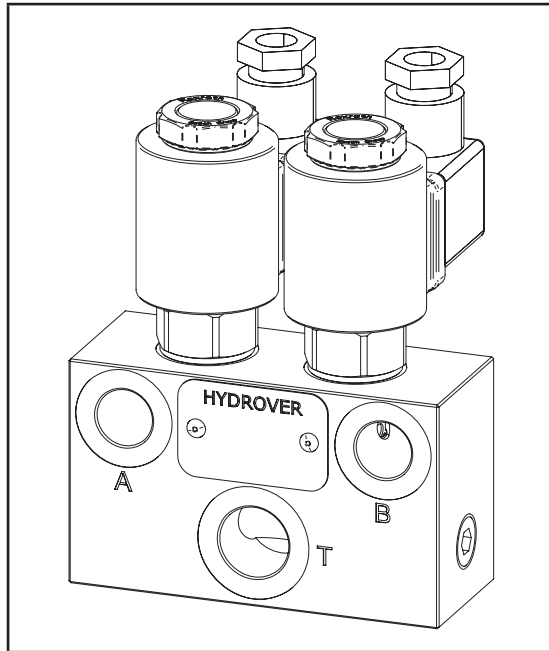
Solenoid valve manual override *

- E0 = Without
- EP = Push (NA, 2A)
- EV = Screw (NC, 2C)
- EG = Push and twist (NA, 2A)

* Omit if not required. For example, to order the product without valves, omit the solenoid valve spool type, manual override, coil connection and coil voltage options: H17112A.
The manifold will still be provided with the corresponding cavity.

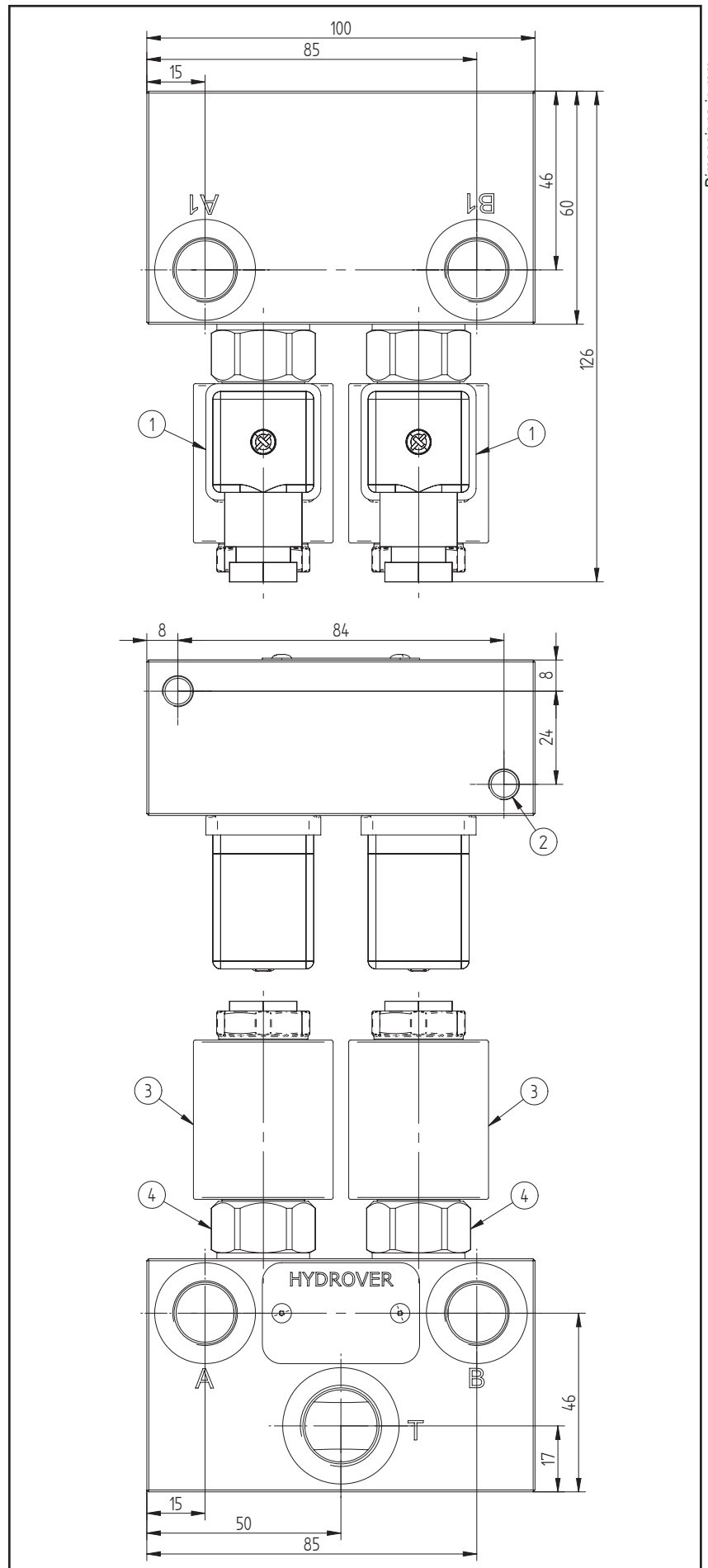


Technical data	
Max. pressure	250 bar
Max. flow	40 lpm *
Weight	1,3 Kg
Manifold material	Aluminium
A / B / A1 / B1 ports	3/8" G
T port	1/2" G



N°	Description	Q.ty
1	Connector DIN 43650 ISO 4400	2
2	M8x15 thread for mounting	2
3	Bosch Rexroth coil D36 CLASS H DIN 43650 ISO 4400 *	2
4	Bosch Rexroth solenoid valve VE1-16-08A-NC OD.15.05.18-Y-000000 depicted without manual override *	2

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue



Dimensions in mm

Ordering code

H	1	7	0	1	2	A	-	-	-	-	-
---	---	---	---	---	---	---	---	---	---	---	---

Hydrover product

Product series

17 series - Inline valves

Product ID

Manifold material

Aluminium

Solenoid valves coil connection *

1 = DIN 43650 ISO 4400

Solenoid valves coil voltage *

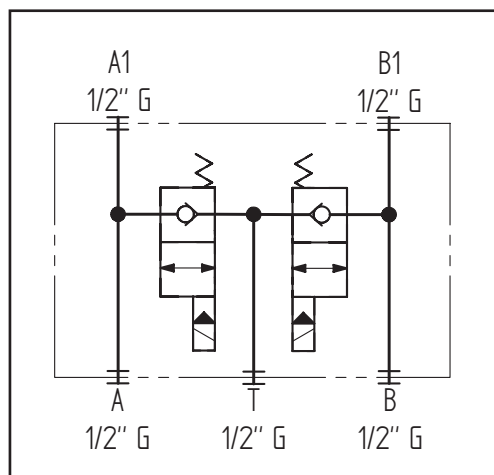
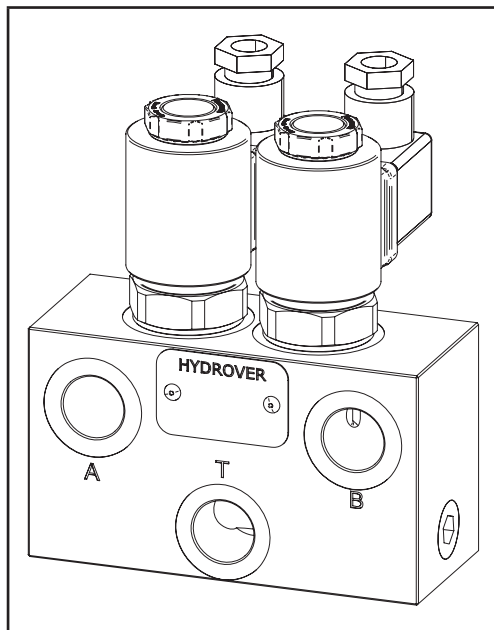
OB =	12V DC
OC =	24V DC
OD =	48V DC
OU =	110V RAC
AH =	230V RAC

Solenoid valves manual override *

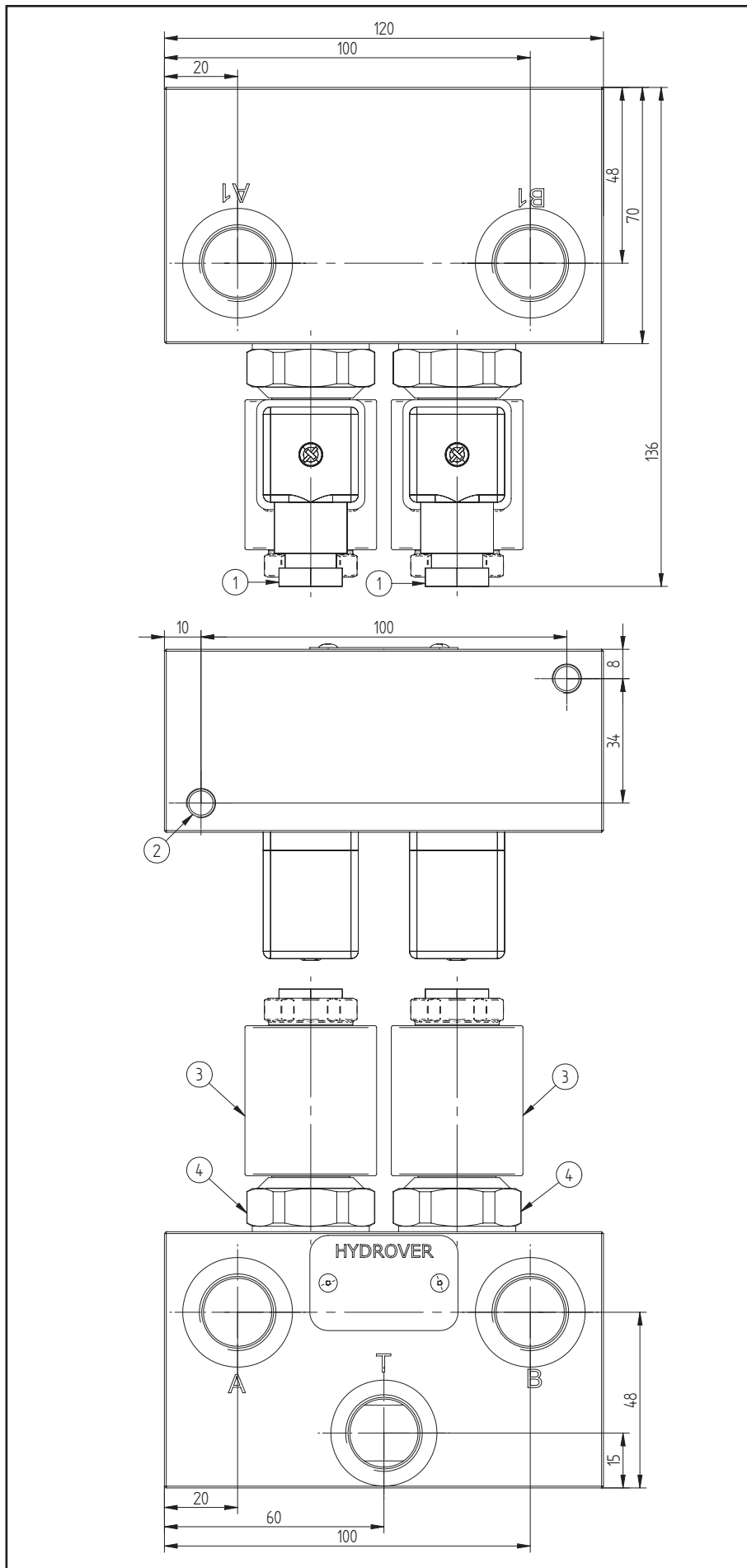
E0 =	Without
EV =	Screw

* Omit if not required. For example, to order the product without the solenoid cartridge valves, omit the coil connection, coil voltage, max. flow and manual override options: H17012A.
The manifold will still be provided with the corresponding cavities.

Technical data	
Max. pressure	250 bar
Max. flow	70 lpm *
Weight	1,9 Kg
Manifold material	Aluminium
A / B / A1 / B1 / T ports	1/2" G



N°	Description	Q.ty
1	Connector DIN 43650 ISO 4400	2
2	M8x15 thread for mounting	2
3	Bosch Rexroth coil D36 CLASS H DIN 43650 ISO 4400 *	2
4	Bosch Rexroth solenoid valve OD.15.05.17-Y-000000 depicted without manual override.	2



Dimensions in mm

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue

Ordering code

H	1	7	0	1	3	A	-	-	-	-	-
---	---	---	---	---	---	---	---	---	---	---	---

Hydrover product

Product series

17 series - Inline valves

Product ID

Manifold material

Aluminium

Solenoid valves coil connection *

1 = DIN 43650 ISO 4400

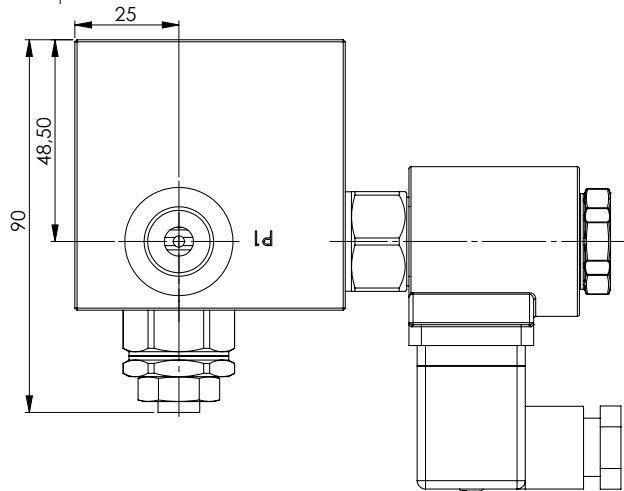
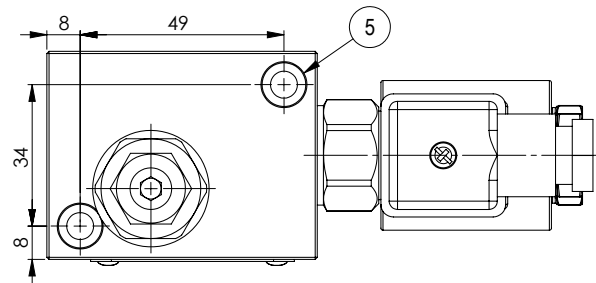
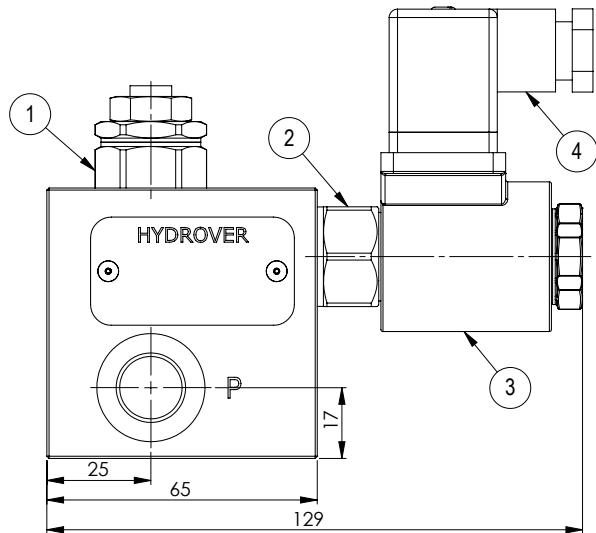
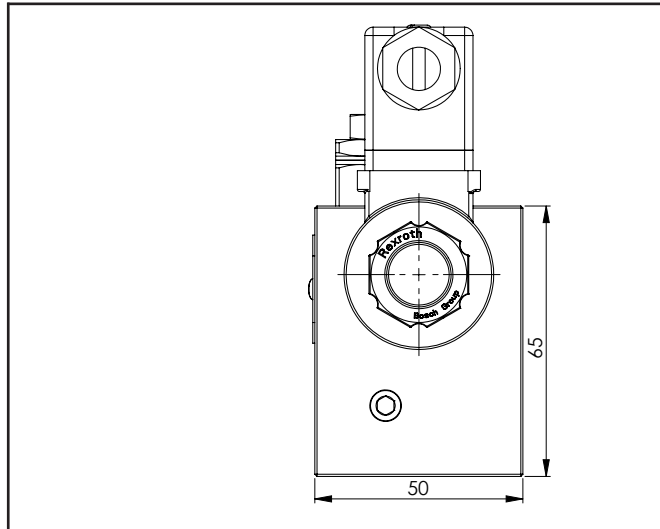
Solenoid valves coil voltage *

OB =	12V DC
OC =	24V DC
OD =	48V DC
OU =	110V RAC
AH =	230V RAC

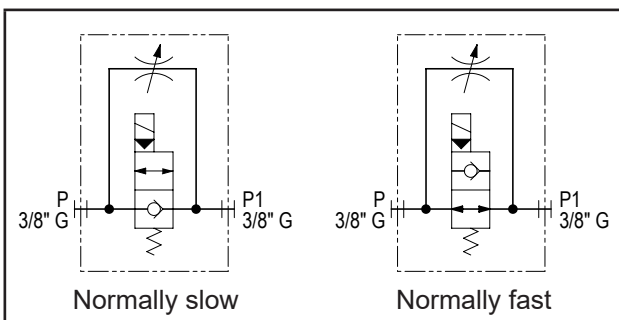
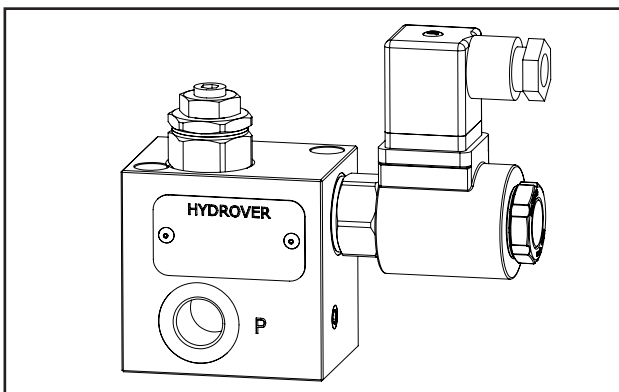
Solenoid valves manual override *

E0 =	Without
EV =	Screw

* Omit if not required. For example, to order the product without the solenoid cartridge valves, omit the coil connection, coil voltage, max. flow and manual override options: H17013A.
The manifold will still be provided with the corresponding cavities.



Technical data	
Max. pressure	250 bar
Max. flow	30 lpm *
Weight	1 Kg
Manifold material	Aluminium
P / P1 ports	3/8" G



N°	Description	Q.ty
1	Bosch Rexroth bidirectional flow restrictor OD.21.01-X-56 * depicted with screw adjustment	1
2	Bosch Rexroth solenoid valve for fast slow function VEI-16-08A-NC OD.15.05.18-Y-000000 (normally slow) or VEI-16-08A-NA OD.15.06.18-Y-000000 (normally fast) depicted without manual override *	1
3	Bosch Rexroth coil D36 - CLASS H DIN 43650 ISO 4400 *	1
4	Connector DIN 43650 ISO 4400	1
5	M8x15 with Ø 6,5 through hole for mounting with M6 screw	2

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue

Ordering code

H 1 7 0 3 4 A - _ Q - _ - - - - -

Hydrover product

Product series

17 series - Inline valves

Product ID

Manifold material

Aluminium

Restrictor adjustment type

Screw = S
Knob = K

Slow or fast in normal position *

Normally slow = NL
Normally fast = NR

Fast slow solenoid valve coil connection *

1 = DIN 43650
ISO 4400

Solenoid valve coil voltage *

OB = 12V DC
OC = 24V DC
OD = 48V DC
OU = 110V RAC
AH = 230V RAC

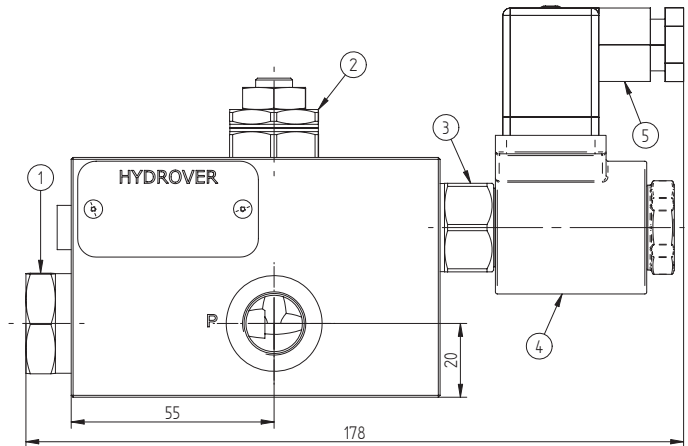
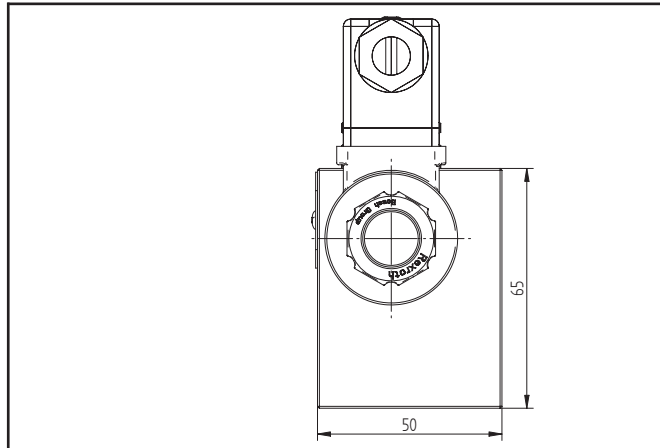
Fast slow solenoid valve manual override *

E0 = Without
EP = Push (NR)
EV = Screw (NL)
EG = Push and twist (NR)

* Omit if not required. For example, to order the product without the fast slow solenoid cartridge valve, omit the fast slow coil connection, coil voltage and manual override options: H17034A-SQ
The manifold will still be provided with the corresponding cavity.
To inhibit a function, replace the related valve options with TL: eg H17034A-SQ-TL.
In the cavity it will be mounted a long plug.

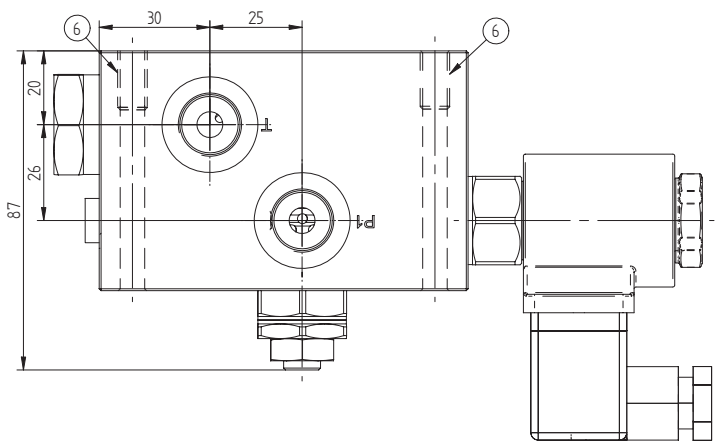
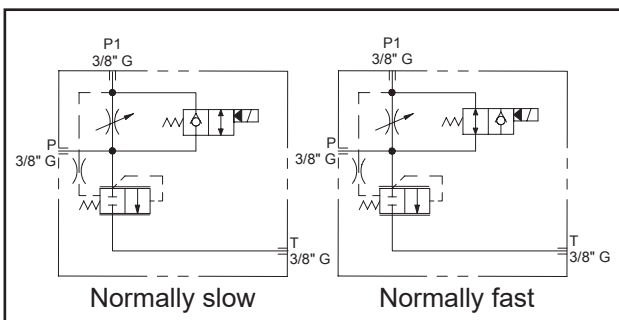
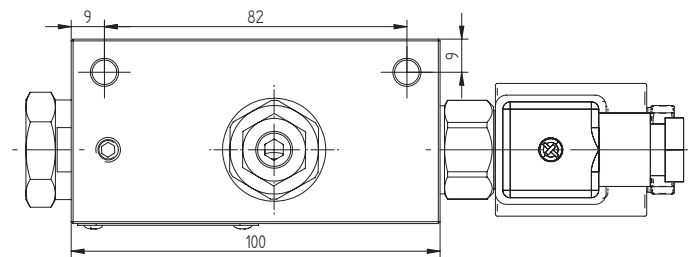
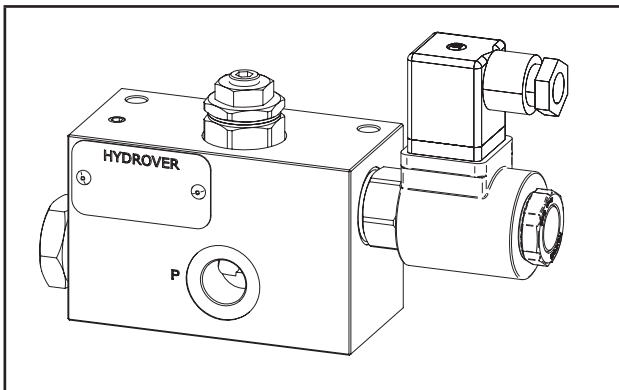
Valve	Cavity	Long plug code
Solenoid valve VEI-16-08A-NC OD.15.05.18-Y-000000 or VEI-16 08A-NA OD.15.06.18-Y-000000	CA-08A-2N	0489A2005600000

3 way compensated fast slow speed inline valve / 30 lpm **H17001**



Dimensions in mm

Technical data	
Max. pressure	250 bar
Max. flow	30 lpm
Weight	1,2 Kg
Manifold material	Aluminium
P / P1 / T ports	3/8" G



N°	Description	Q.ty
1	Pressure compensator	1
2	Bosch Rexroth bidirectional flow restrictor OD.21.01-X-56 * depicted with screw adjustment	1
3	Bosch Rexroth solenoid valve for fast slow function VEI-16-08A-NC OD.15.05.18-Y-000000 (normally slow) o VEI-16-08A-NA OD.15.06.18-Y-000000 (normally fast) depicted without manual override *	1
4	Bosch Rexroth coil D36 - CLASS H DIN 43650 ISO 4400 *	1
5	Connector DIN 43650 ISO 4400	1
6	M8x15 with Ø 6,5 through hole for mounting with M6 screw	2

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue

Ordering code

H 1 7 0 0 1 A _ _ Q - _ - - _ - -

Hydrover product

Product series

17 series - Inline valves

Product ID

Manifold material

Aluminium

Compensator spring

6 bar (standard) = 6

12 bar = 1

Restrictor adjustment type

Screw = S

Knob = K

Fast slow solenoid valve coil connection *

1 = DIN 43650
ISO 4400

Solenoid valve coil voltage *

OB = 12V DC
OC = 24V DC
OD = 48V DC
OU = 110V RAC
AH = 230V RAC

Fast slow solenoid valve manual override *

E0 = Without
EP = Push (NR)
EV = Screw (NL)
EG = Push and twist (NR)

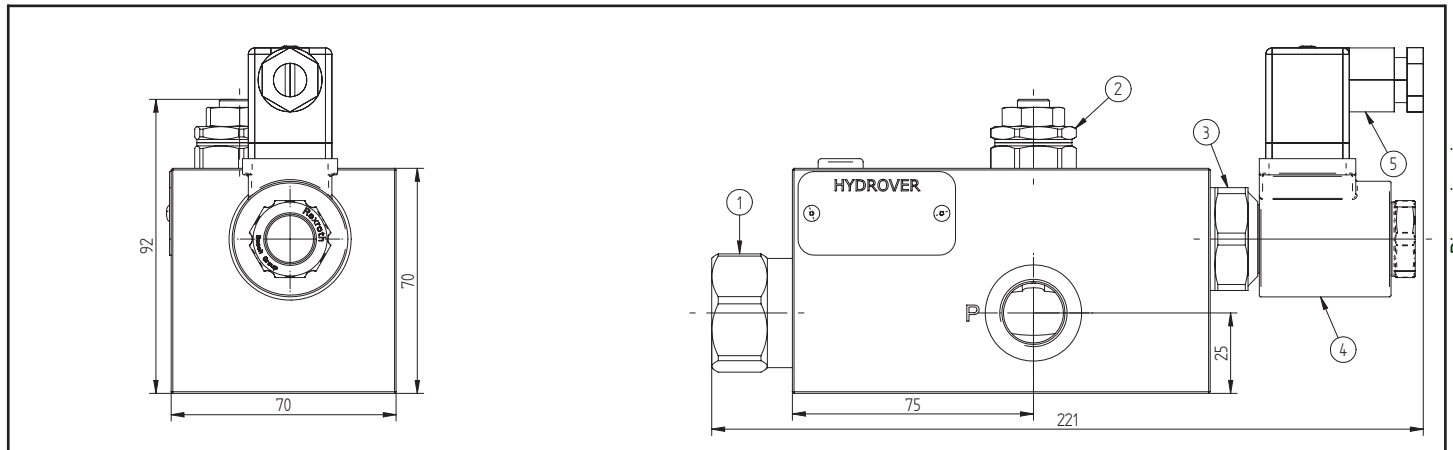
Slow or fast in normal position *

NL = Normally slow
NR = Normally fast

* Omit if not required. For example, to order the product without the fast slow solenoid cartridge valve, omit the fast slow coil connection, coil voltage and manual override options: H17001A4SQ.
The manifold will still be provided with the corresponding cavity.
To inhibit a function, replace the related valve options with TL: eg H17001A4SQ-TL.
In the cavity it will be mounted a long plug.

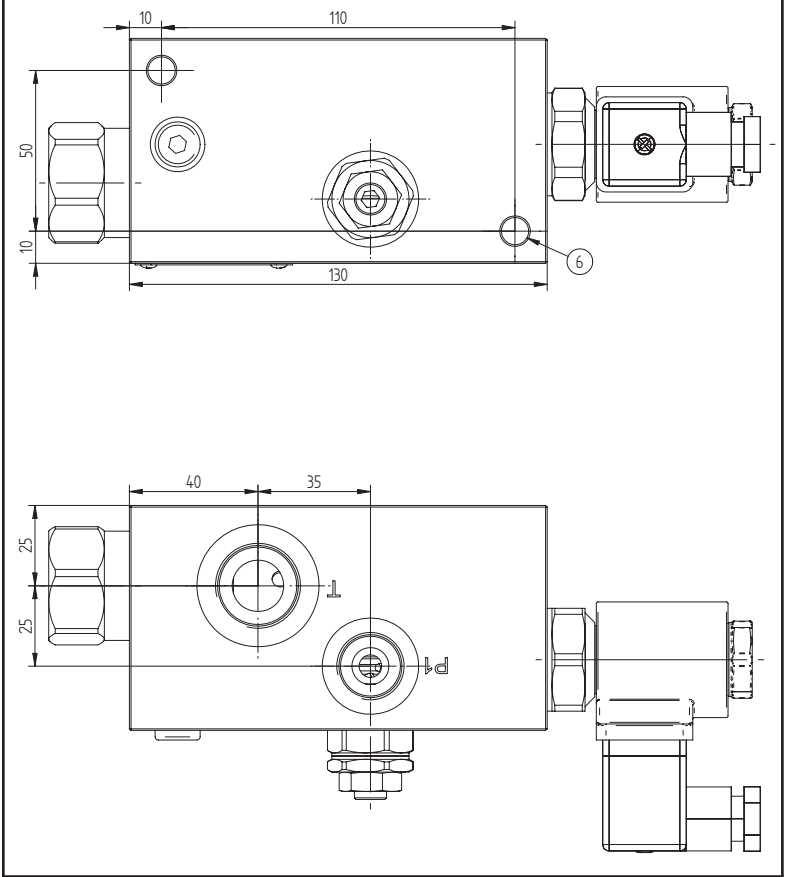
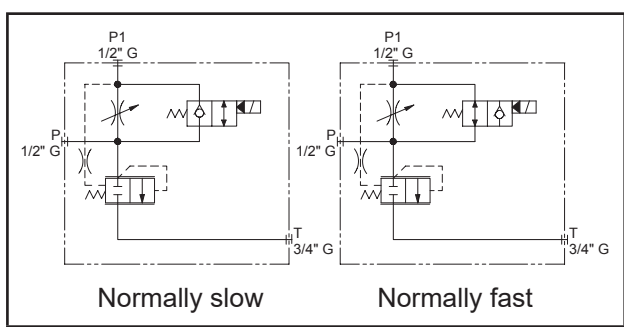
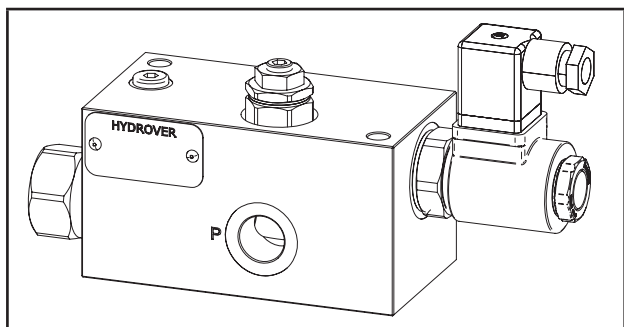
Valve	Cavity	Long plug code
Solenoid valve VEI-16-08A-NC OD.15.05.18-Y-000000 or VEI-16-08A- NA OD.15.06.18-Y-000000	CA-08A-2N	0489A2005600000

3 way compensated fast slow speed inline valve / 60 lpm **H17015**



Dimensions in mm

Technical data	
Max. pressure	250 bar
Max. flow	60 lpm
Weight	2,3 Kg
Manifold material	Aluminium
P / P1 ports	1/2" G
T port	3/4" G



N°	Description	Q.ty
1	Pressure compensator	1
2	Bosch Rexroth bidirectional flow restrictor OD.21.01-X-56 * depicted with screw adjustment	1
3	Bosch Rexroth solenoid valve for fast slow function OD.15.05.17-Y-000000 * (normally slow) o OD.15.06.17-Y-000000 (normally fast)	1
4	Bosch Rexroth coil D36 - CLASS H DIN 43650 ISO 4400 *	1
5	Connector DIN 43650 ISO 4400	1
6	Ø 8,5 through hole for mounting	2

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue

Ordering code

H 1 7 0 1 5 A _ _ Q - _ - - _ - -

Hydrover product

Product series

17 series - Inline valves

Product ID

Manifold material

Aluminium

Compensator spring

5.5 bar (standard) = 6
 12.5 bar = 1
 19 bar = 2

Restrictor adjustment type

Screw = S
 Knob = K

Fast slow solenoid valve coil connection *

1 = DIN 43650
 ISO 4400

Solenoid valve coil voltage *

OB = 12V DC
 OC = 24V DC
 OD = 48V DC
 OU = 110V RAC
 AH = 230V RAC

Fast slow solenoid valve manual override *

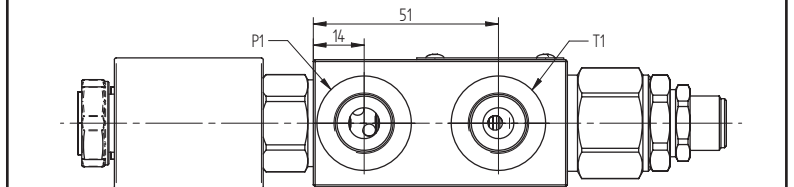
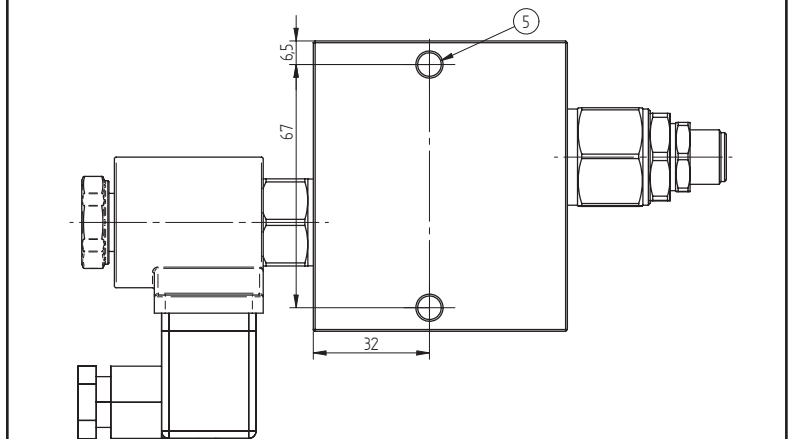
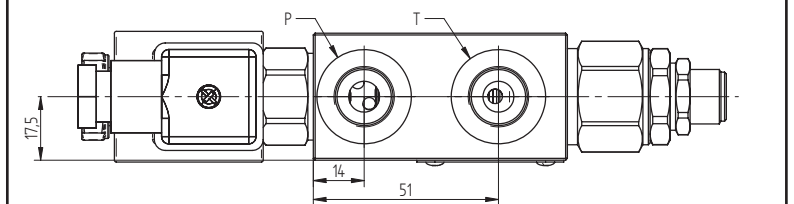
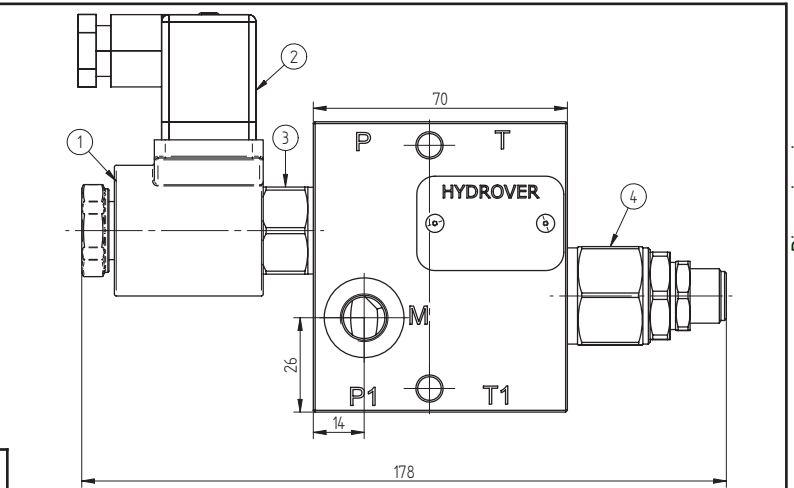
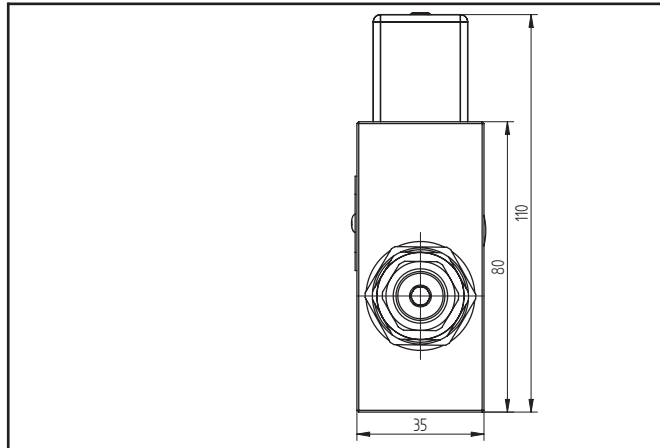
E0 = Without
 EP = Push (NR)
 EV = Screw (NL)
 EG = Push and twist (NR)

Slow or fast in normal position *

NL = Normally slow
 NR = Normally fast

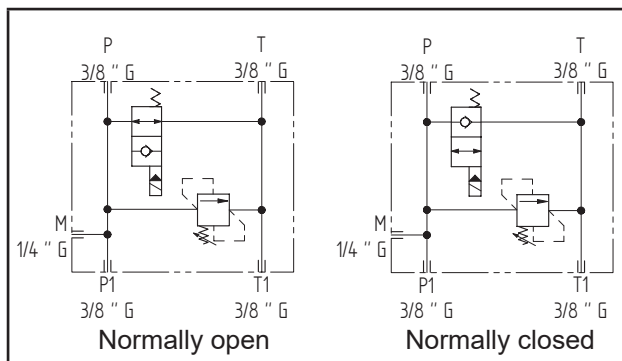
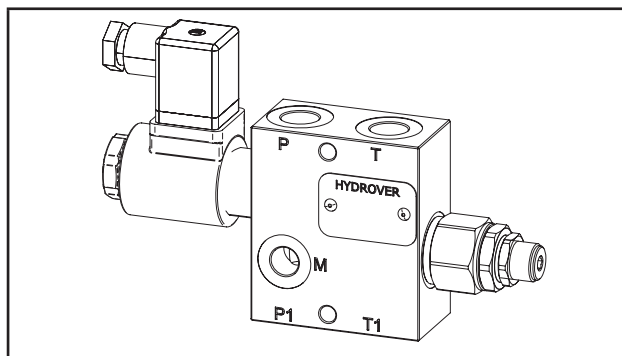
* Omit if not required. For example, to order the product without the fast slow solenoid cartridge valve, omit the fast slow coil connection, coil voltage and manual override options: H17015A6SQ.
 The manifold will still be provided with the corresponding cavity.
 To inhibit a function, replace the related valve options with TL: eg H17015A6SQ-TL.
 In the cavity it will be mounted a long plug.

Valve	Cavity	Long plug code
Solenoid valve OD.15.05.17-Y-000000 / OD.15.06.17-Y-000000	017-E	R-800-014



Dimensions in mm

Technical data	
Max. pressure	250 bar
Max. flow	35 lpm *
Weight	1 Kg
Manifold material	Aluminium
M port	1/4" G
P / P1 / T / T1 ports	3/8" G



N°	Description	Q.ty
1	Bosch Rexroth coil D36 - CLASS H DIN 43650 ISO 4400 *	1
2	Connector DIN 43650 ISO 4400	1
3	Bosch Rexroth solenoid valve VEI-16 OD.15.05.18-Y-000000 (normally closed) o VEI-16 OD.15.06.18-Y-000000 (normally open) depicted without manual override *	1
4	Bosch Rexroth relief valve VMD1.040 *	1
5	Ø 6,5 through hole for mounting	2

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue

Ordering code

H 1 7 0 0 5 A - - - - -

Hydrover product

Product series

17 series - Inline valves

Product ID

Manifold material

Aluminium

Relief valve adjustment type *

Screw

= S

Relief valve adjustment pressure range *

25-120 bar

= 1

40-200 bar

= 2

200-350 bar

= 3

Solenoid valve coil connection *

1 = DIN 43650

ISO 4400

Solenoid valve coil voltage *

OB = 12V DC

OC = 24V DC

OD = 48V DC

OU = 110V RAC

AH = 230V RAC

Solenoid valve manual override *

E0 = Without

EP = Push (NA)

EV = Screw (NC)

EG = Push and twist (NA)

Solenoid valve spool type *

NA = Normally open

NC = Normally closed

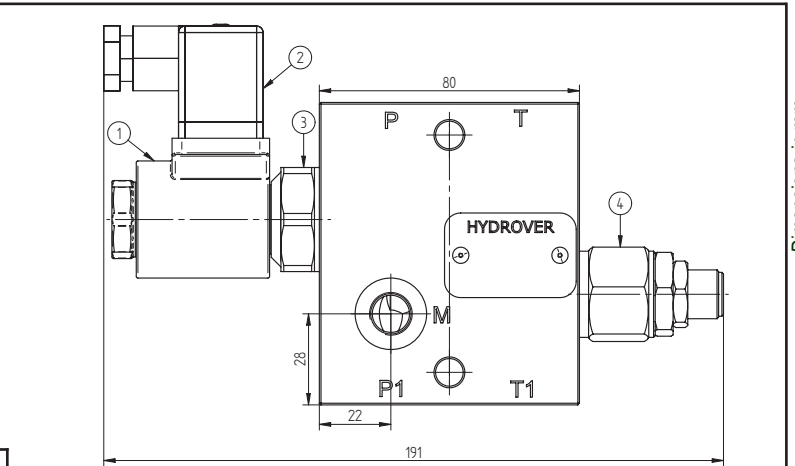
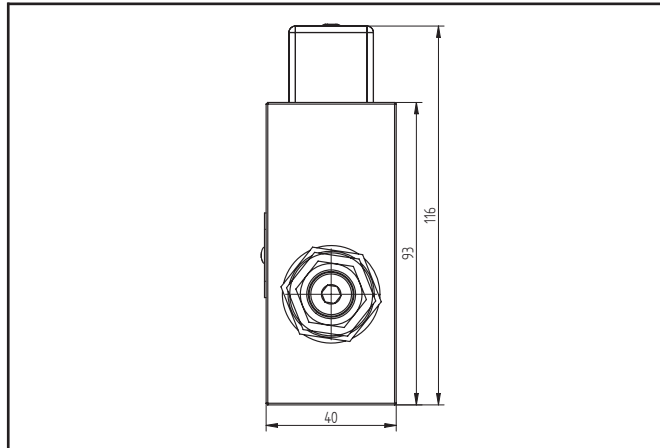
* Omit if not required. For example, to order the product without the solenoid cartridge valve, omit the coil connection, coil voltage and manual override options: H17005A-S2.

The manifold will still be provided with the corresponding cavity.

To inhibit a function, replace the related valve options with TL: eg H17005A-S2-TL.

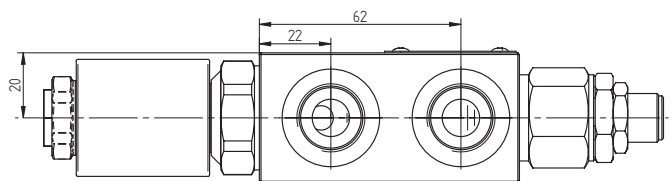
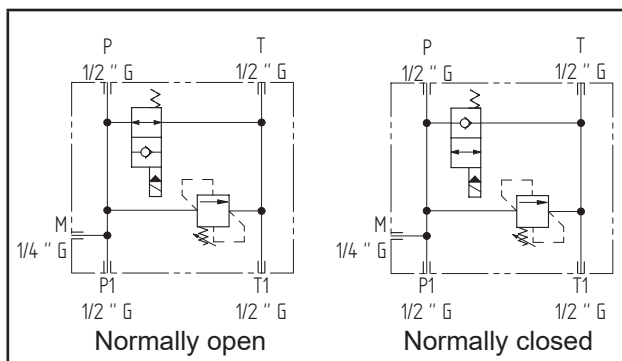
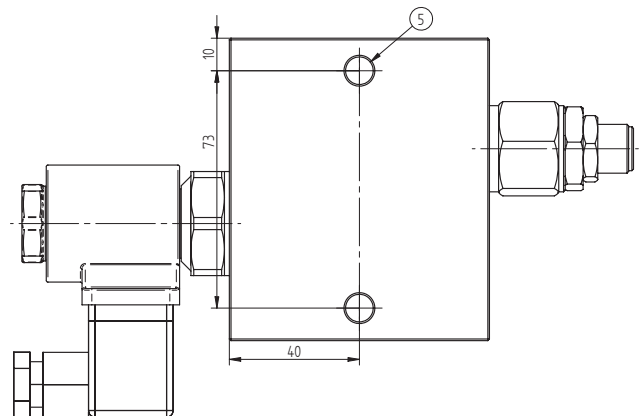
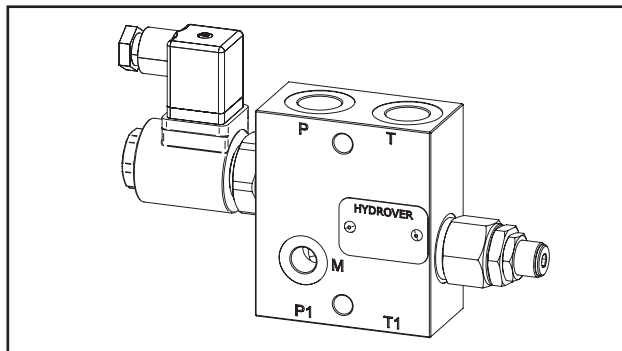
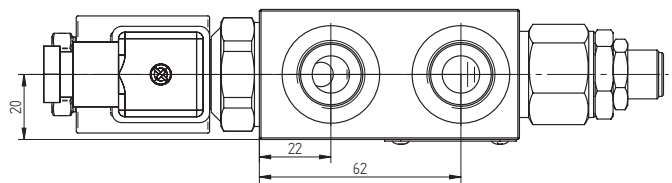
In the cavity it will be mounted a long plug.

Valve	Cavity	Long plug code
Solenoid valve VEI-16 OD.15.05.18-Y-000000 or VEI-16 OD.15.06.18-Y-000000	CA-08A-2N	0489A2005600000
Pressure relief valve VMD1.040	CA-10A-2N	0489A2008500000



Dimensions in mm

Technical data	
Max. pressure	250 bar
Max. flow	60 lpm *
Weight	Aluminium 1,3 Kg
	Steel 2,4 Kg
Manifold material	Aluminium or steel
M port	1/4" G
P / P1 / T / T1 ports	1/2" G



N°	Description	Q.ty
1	Bosch Rexroth coil D36 - CLASS H DIN 43650 ISO 4400 *	1
2	Connector DIN 43650 ISO 4400	1
3	Bosch Rexroth solenoid valve OD.15.05.17-Y-000000 (normally closed) o OD.15.06.17-Y-000000 (normally open) depicted without manual override *	1
4	Bosch Rexroth relief valve VMD1.070 *	1
5	Ø 8,5 through hole for mounting	2

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue

Ordering code

H	1	7	0	0	6	-	-	-	-	-	-	-	-	-	-	-	-
---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

Hydrover product

Product series

17 series - Inline valves

Product ID

Manifold material

Aluminium = A

Steel = S

Relief valve adjustment type *

Screw = S

Relief valve adjustment pressure range *

10-60 bar = 0

40-110 bar = 1

110-220 bar = 2

220-260 bar = 3

Solenoid valve coil connection *

1 = DIN 43650

ISO 4400

Solenoid valve coil voltage *

OB = 12V DC

OC = 24V DC

OD = 48V DC

OU = 110V RAC

AH = 230V RAC

Solenoid valve manual override *

E0 = Without

EP = Push (NA)

EV = Screw (NC)

EG = Push and twist (NA)

Solenoid valve spool type *

NA = Normally open

NC = Normally closed

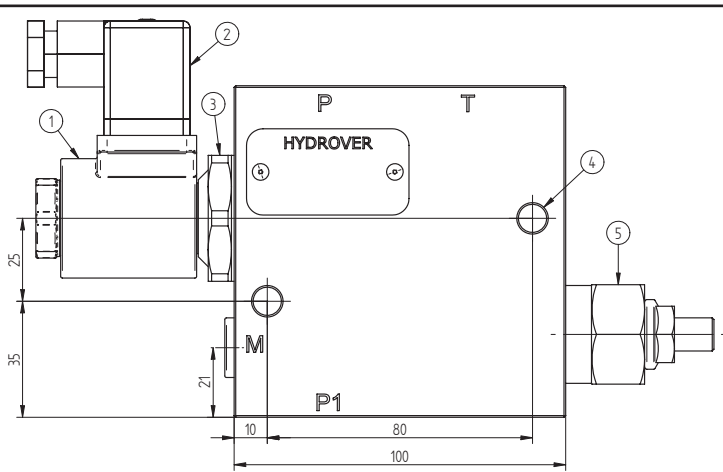
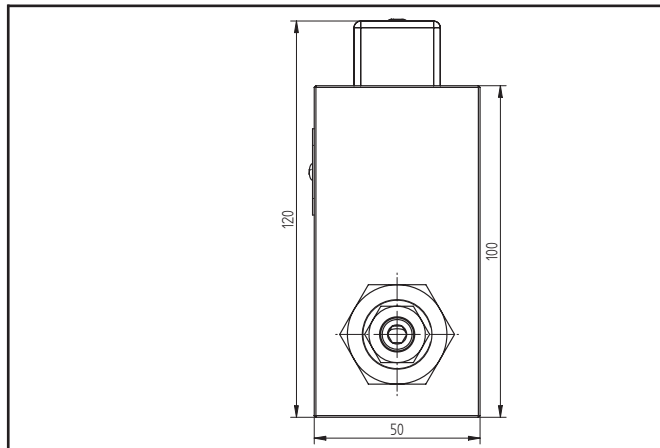
* Omit if not required. For example, to order the product without the solenoid cartridge valve, omit the coil connection, coil voltage and manual override options: H17006A-S2.

The manifold will still be provided with the corresponding cavity.

To inhibit a function, replace the related valve options with TL: eg H17006A-S2-TL.

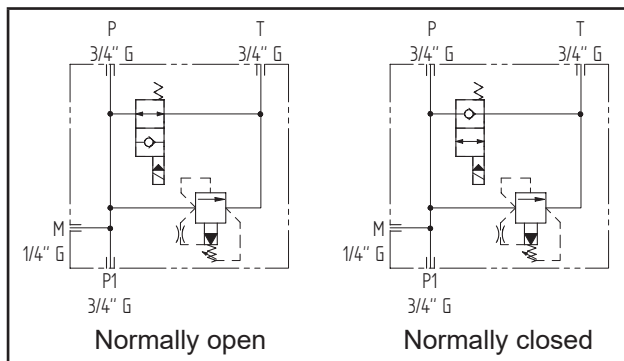
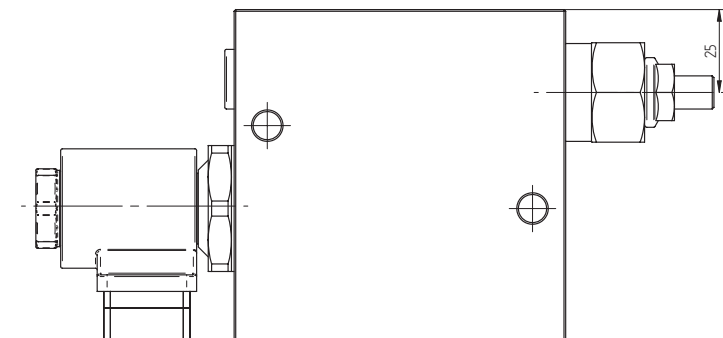
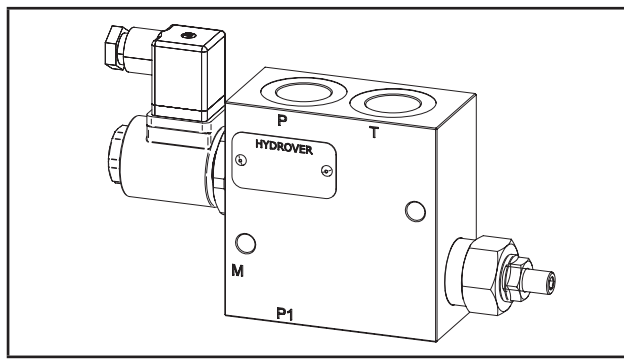
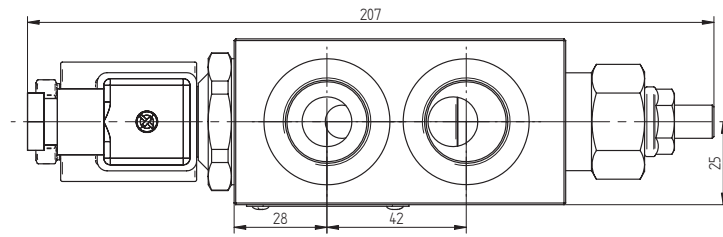
In the cavity it will be mounted a long plug.

Valve	Cavity	Long plug code
Solenoid valve OD.15.05.17-Y-000000 / OD.15.06.17-Y-000000	017-E	R-800-014
Pressure relief valve VMD1.070	CA-10A-2N	0489A2008500000



Dimensions in mm

Technical data	
Max. pressure	250 bar
Max. flow	120 lpm *
Weight	2,1 Kg
Manifold material	Aluminium
M port	1/4" G
P / P1 / T ports	3/4" G



N°	Description	Q.ty
1	Bosch Rexroth coil D36 - CLASS H DIN 43650 ISO 4400 *	1
2	Connector DIN 43650 ISO 4400	1
3	Bosch Rexroth solenoid valve OD.15.05.21-Y-00000 (normally closed) o OD.15.06.21-Y-00000 (normally open) depicted without manual override *	1
4	Ø 8,5 through hole for mounting	1
5	Bosch Rexroth relief valve VSP-150 *	2

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue

Ordering code

H 1 7 0 0 3 A - - - - - - - - - -

Hydrover product

Product series

17 series - Inline valves

Product ID

Manifold material

Aluminium

Relief valve adjustment type *

Screw = S
Knob = K

Relief valve adjustment pressure range *

3-70 bar = 0
7-105 bar = 1
10-210 bar = 2
35-420 bar = 3

Solenoid valve coil connection *

1 = DIN 43650
ISO 4400

Solenoid valve coil voltage *

OB = 12V DC
OC = 24V DC
OD = 48V DC
OU = 110V RAC
AH = 230V RAC

Solenoid valve manual override *

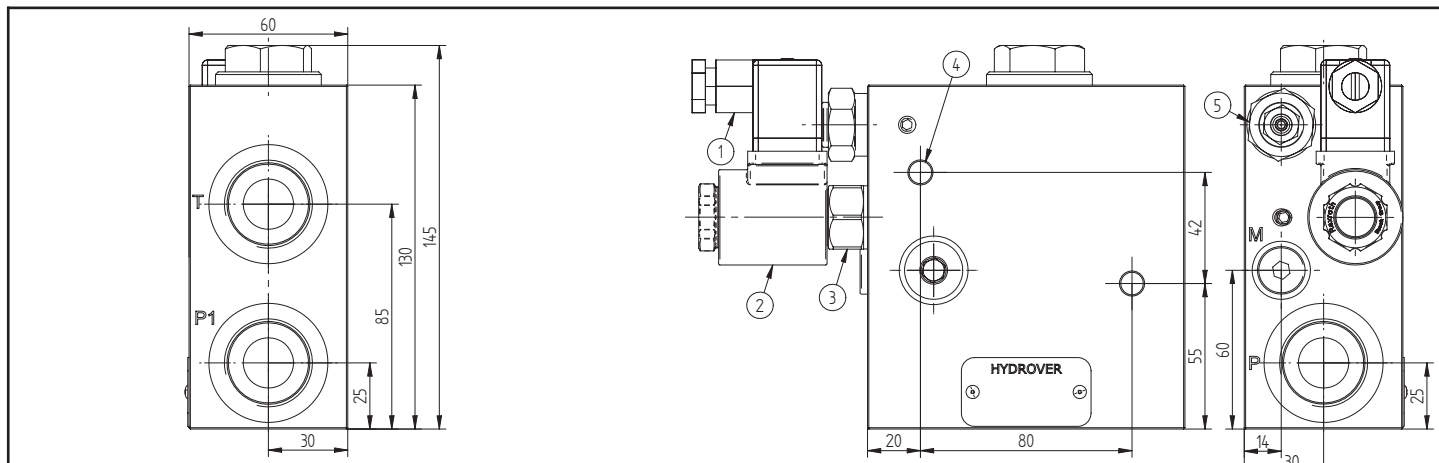
E0 = Without
EP = Push (NA)
EV = Screw (NC)
EG = Push and twist (NA)

Solenoid valve spool type *

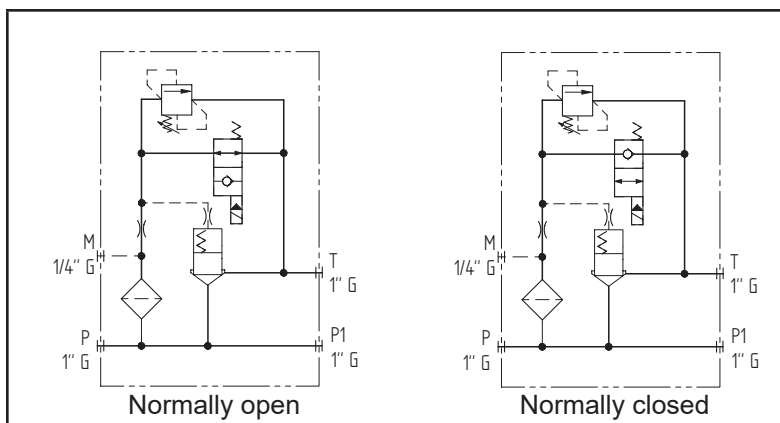
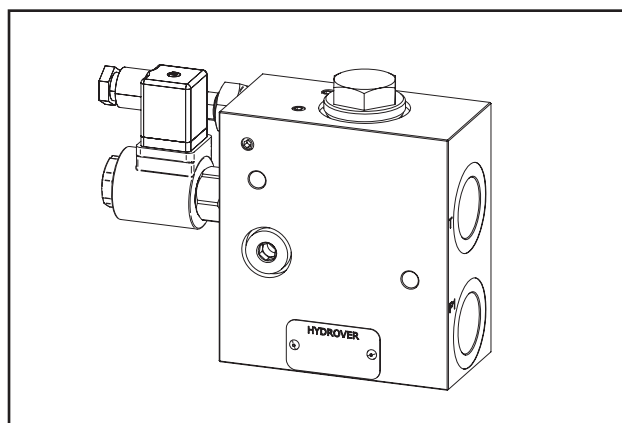
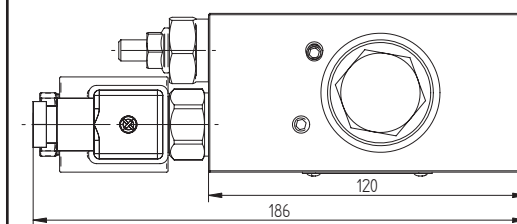
NA = Normally open
NC = Normally closed

* Omit if not required. For example, to order the product without the solenoid cartridge valve, omit the coil connection, coil voltage and manual override options: H17006A-S2.
The manifold will still be provided with the corresponding cavity.
To inhibit a function, replace the related valve options with TL: eg H17003A-TL-NA-E0-OC1.
In the cavity it will be mounted a long plug.

Valve	Cavity	Long plug code
Solenoid valve OD.15.05.21-Y-00000 / OD.15.06.21-Y-00000	021-E	R-800-015
Pressure relief valve VSP-150	065	Contact Hydrover



Technical data	
Max. pressure	350 bar
Max. flow	200 lpm
Weight	6,9 Kg
Manifold material	Steel
M port	1/4" G
P / P1 / T ports	1" G



N°	Description	Q.ty
1	Connector DIN 43650 ISO 4400	1
2	Bosch Rexroth coil D36 - CLASS H DIN 43650 ISO 4400 *	1
3	Bosch Rexroth solenoid valve VEI-16-08A-NC OD.15.05.18-Y-000000 (normally closed) o VEI-16-08A-NA OD.15.06.18-Y-000000 (normally open) depicted without manual override *	1
4	Ø 8,5 through hole for mounting	2
5	Bosch Rexroth relief valve VSN-08A depicted with screw regulation*	1

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue

Ordering code

H 1 7 0 0 4 S - - - - - - - - - -

Hydrover product

Product series

17 series - Inline valves

Product ID

Manifold material

Steel

Relief valve adjustment type *

Screw = S
Knob = K

Relief valve adjustment pressure range *

10-70 bar = 0
35-140 bar = 1
105-210 bar = 2
175-350 bar = 3
35-350 bar (adj. knob) = 3

Solenoid valve coil connection *

1 = DIN 43650
ISO 4400

Solenoid valve coil voltage *

OB = 12V DC
OC = 24V DC
OD = 48V DC
OU = 110V RAC
AH = 230V RAC

Solenoid valve manual override *

E0 = Without
EP = Push (NA)
EV = Screw (NC)
EG = Push and twist (NA)

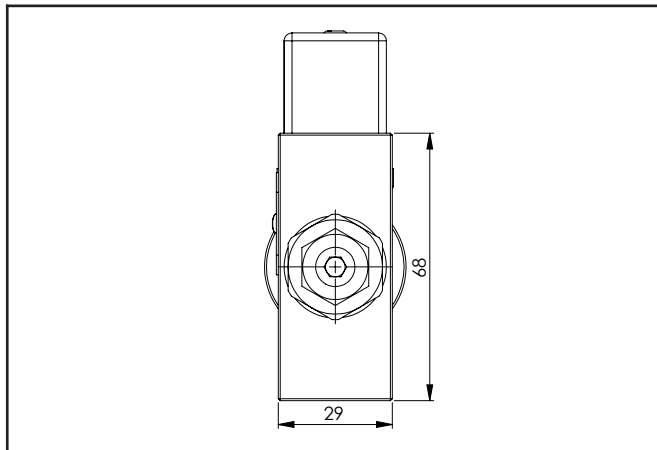
Solenoid valve spool type *

NA = Normally open
NC = Normally closed

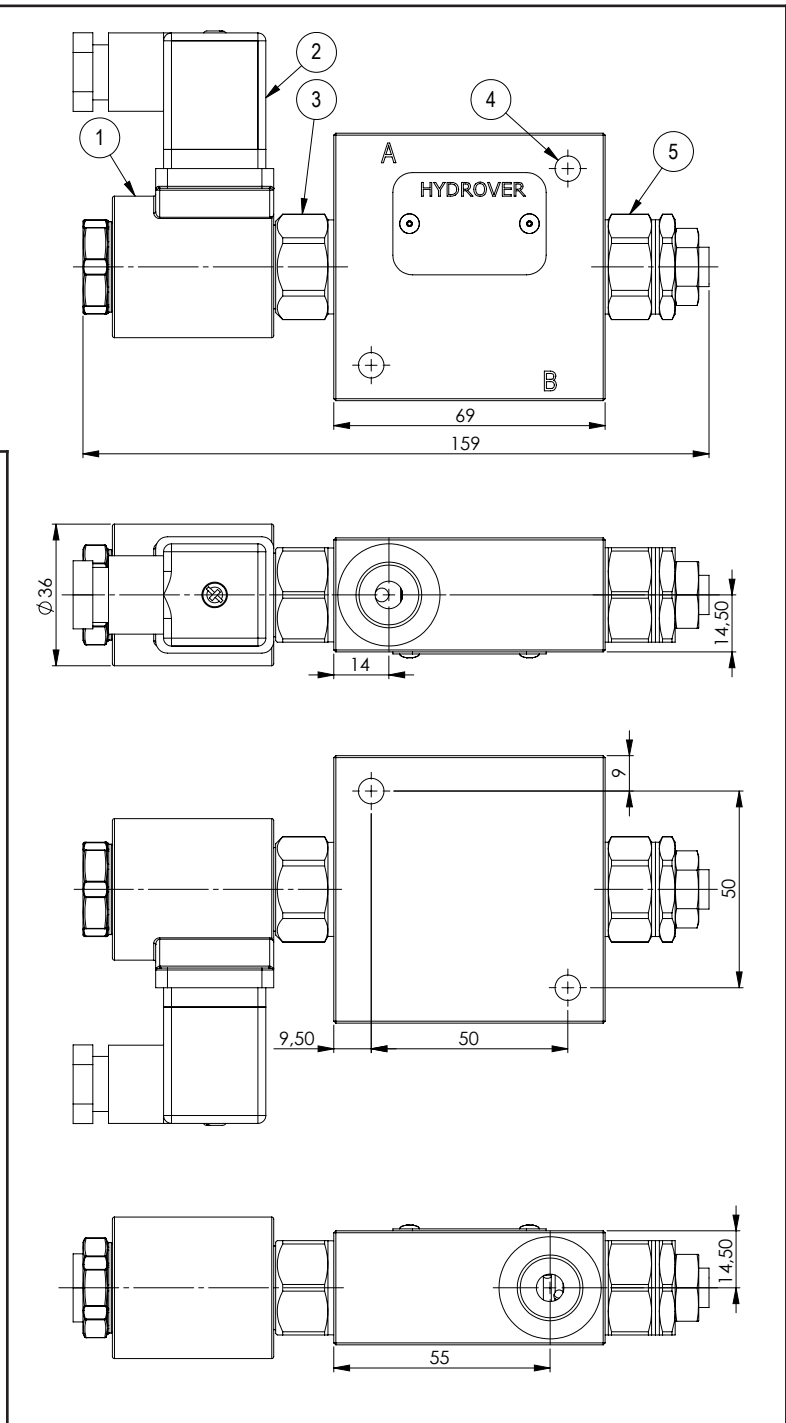
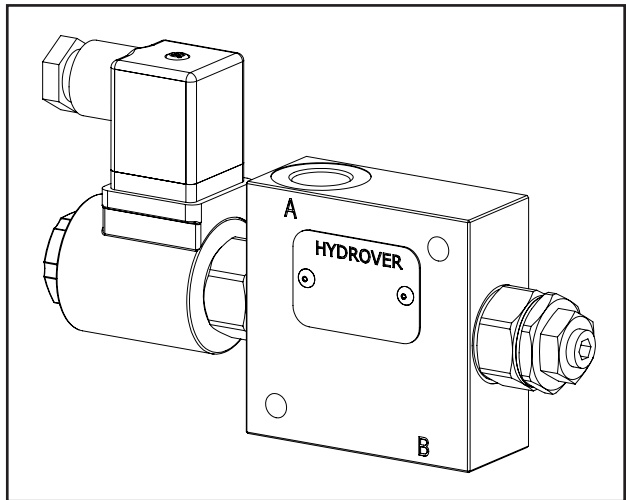
* Omit if not required. For example, to order the product without the solenoid cartridge valve, omit the coil connection, coil voltage and manual override options: H17004S-S2.
The manifold will still be provided with the corresponding cavity.
To inhibit a function, replace the related valve options with TL: eg H17004S-TL-NA-E0-OC1.
In the cavity it will be mounted a long plug.

Valve	Cavity	Long plug code
Solenoid valve VEI-16-08A-NC OD.15.05.18-Y-000000 or VEI-16 08A-NA OD.15.06.18-Y-000000	CA-08A-2N	0489A2005600000
Pressure relief valve VSBN-08A	CA-08A-2N	0489A2005600000

Inline flow restrictor electrically enabled - A-B 3/8" G **H17130**



Technical data	
Max. pressure	250 bar
Max. flow	40 lpm *
Weight	0,77 Kg
Manifold material	Aluminium
A / B ports	3/8" G



Dimensions in mm

N°	Description	Q.ty
1	Bosch Rexroth coil D36 - CLASS H DIN 43650 ISO 4400 *	1
2	Connector DIN 43650 ISO 4400	1
3	Bosch Rexroth solenoid valve VEI-16-08A-NC OD.15.05.18-Y-000000 (normally closed) o VEI-16-08A-NA OD.15.06.18-Y-000000 (normally open) depicted without manual override *	1
4	Ø 6,5 through hole for mounting	2
5	Bosch Rexroth bidirectional flow restrictor OD.21.01-X-56 * depicted with screw adjustment	1

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue

Ordering code

H 1 7 1 3 0 A - _ Q - _ - - - - -

Hydrover product

Product series
17 series - Inline valves

Product ID

Manifold material
Aluminium

Flow restrictor adjustment type *
Screw = S

Solenoid valve spool type *

Normally open	= NA
Normally closed	= NC
Normally open double lock	= 2A
Normally closed double lock	= 2C

Solenoid valve coil connection *

1 = DIN 43650
ISO 4400

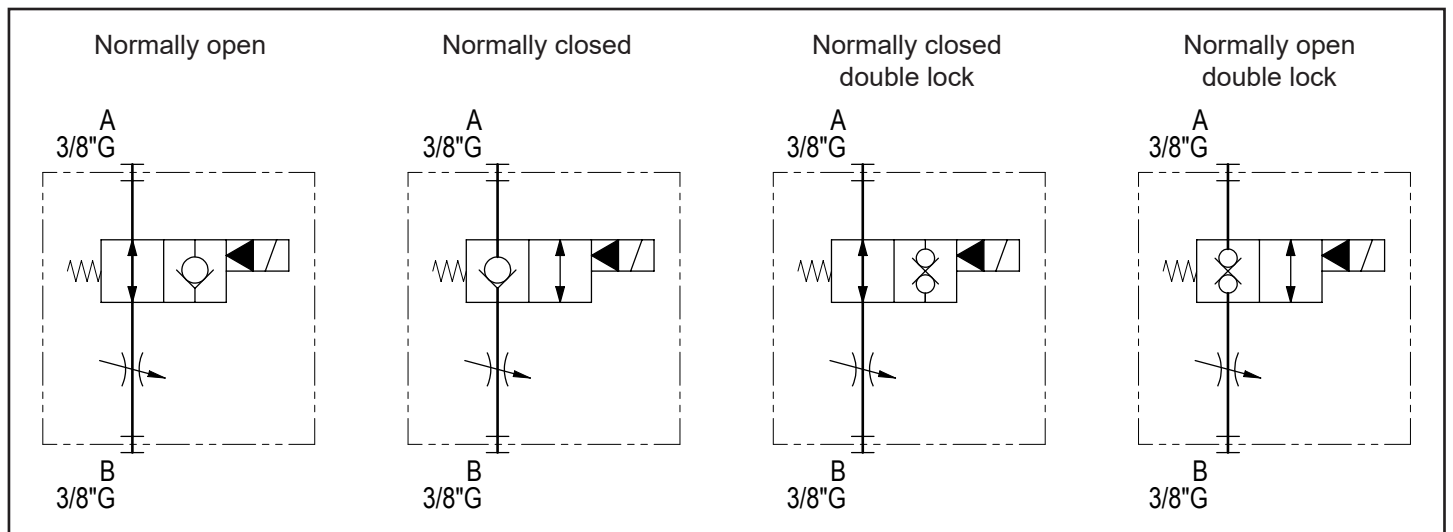
Solenoid valve coil voltage *

OB = 12V DC
OC = 24V DC
OD = 48V DC
OU = 110V RAC
AH = 230V RAC

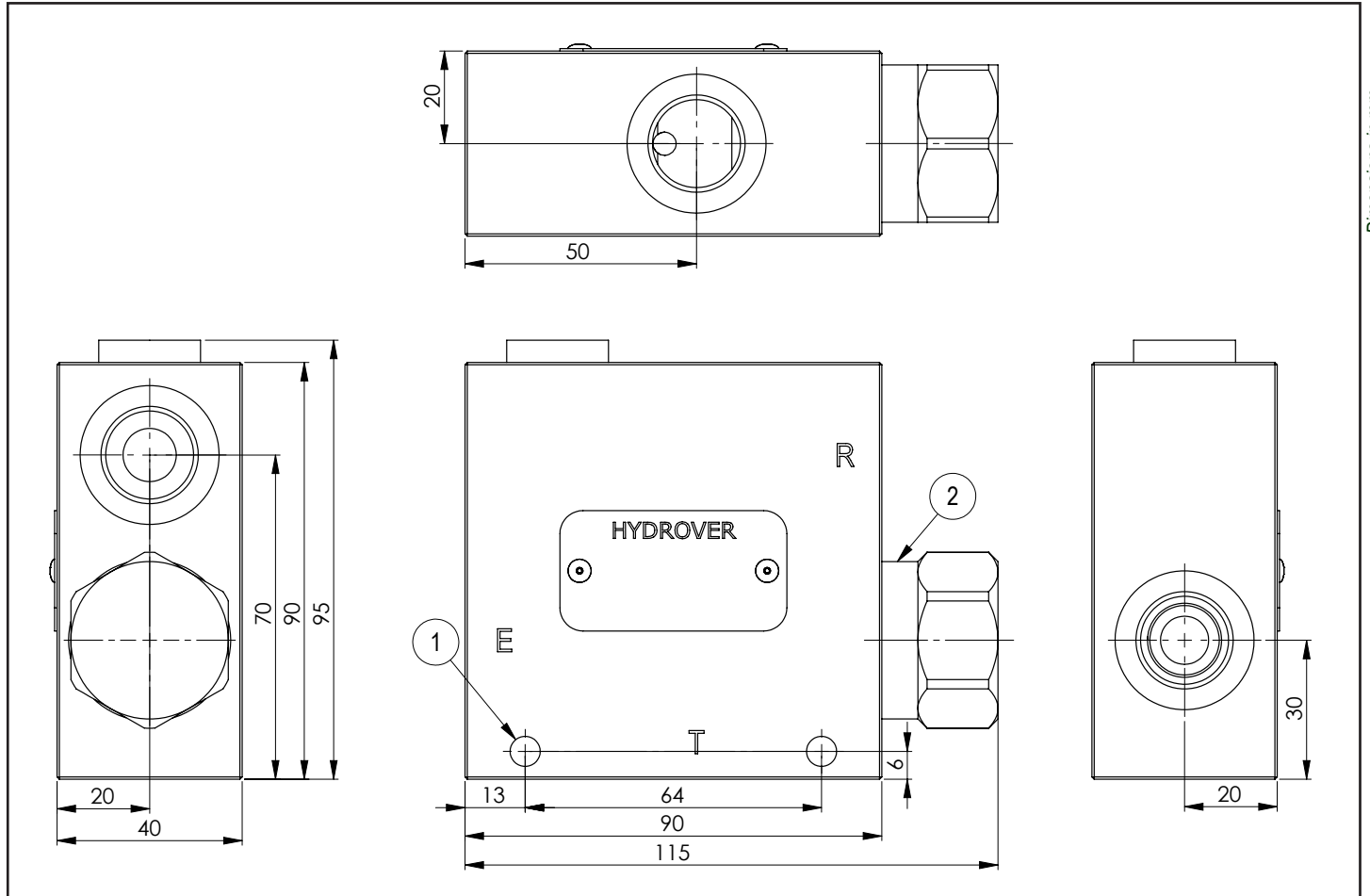
Solenoid valve manual override *

E0 = Without
EP = Push (NA, 2A)
EV = Screw (NC, 2C)
EG = Push and twist (NA, 2A)

* Omit if not required. For example, to order the product without the solenoid cartridge valve, omit the coil connection, coil voltage and manual override options: H17129A-SQ.
The manifold will still be provided with the corresponding cavity.

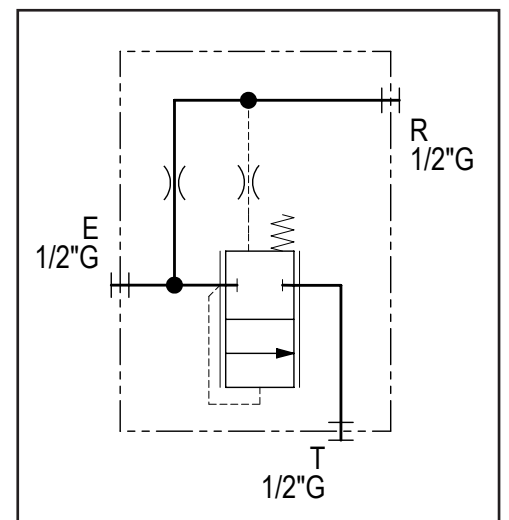
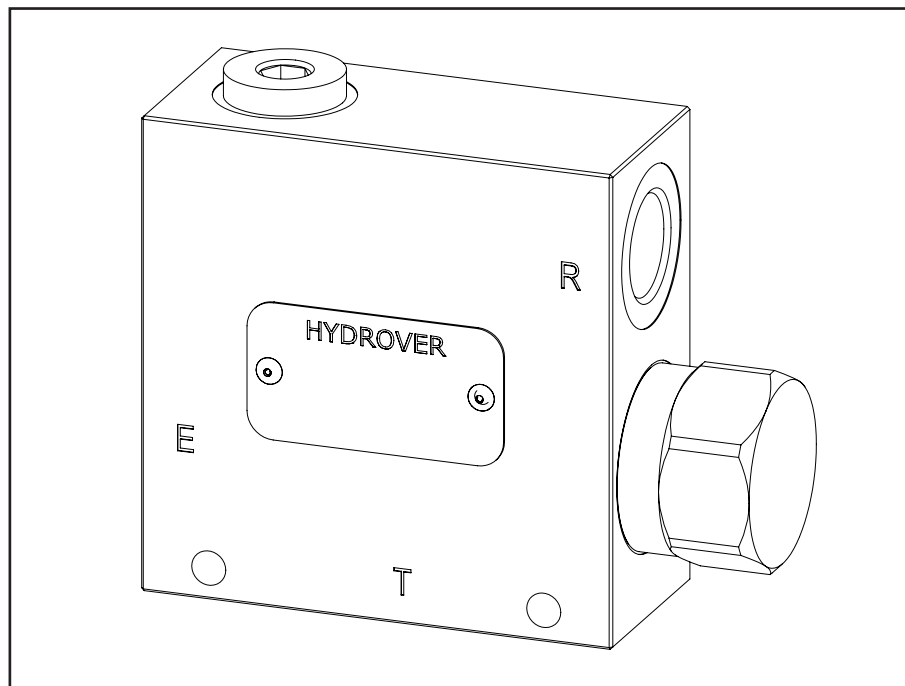


Dimensions in mm



N°	Description	Q.ty
1	Ø 6,5 through hole for mounting	2
2	Compensator	1

Technical data	
Max. pressure	250 bar
Max. inlet flow (E)	70 lpm
Max. regulated flow (R)	50 lpm
Weight	1,1 Kg
Manifold material	Aluminium
E / T / R ports	1/2" G



H	1	7	0	0	2	A	-	F	_	_
---	---	---	---	---	---	---	---	---	---	---

Hydrover product

Product series

17 series - Inline valves

Product ID

**Regulated flow, free choice between
5 and 50 lpm, for example:**

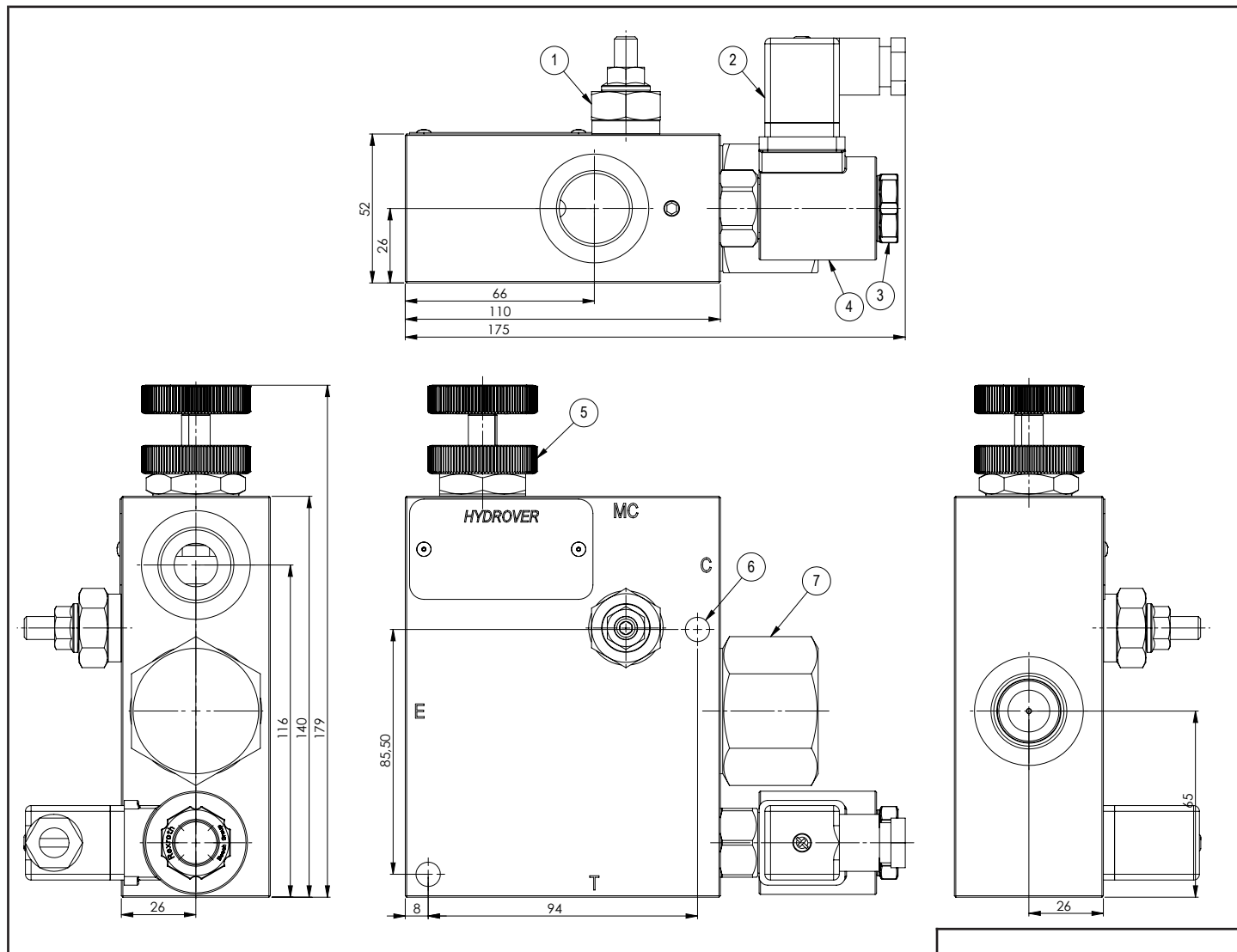
05 =	5 lpm
10 =	10 lpm
25 =	25 lpm
50 =	50 lpm

Fixed setting

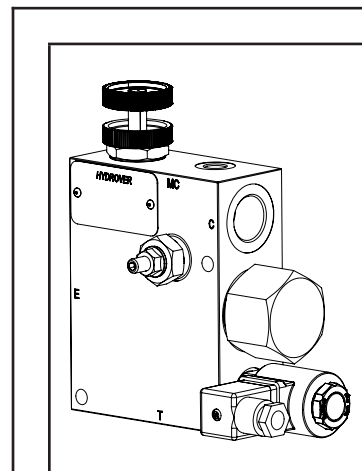
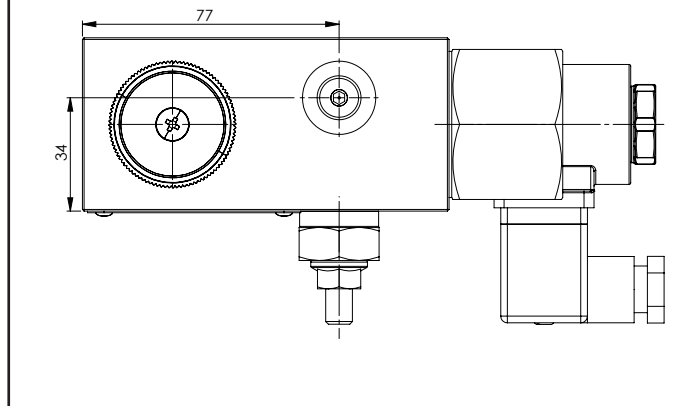
Manifold material
Aluminium

Flow regulator 3 way compensated inline valve with bypass and relief **H17045**

Dimensions in mm



Technical data	
Max. pressure	250 bar
Input max. flow (E)	200 lpm
Ouput regulated max. flow (C)	150 lpm
Weight	3,1 Kg
Manifold material	Aluminium
M port	1/4" G
C / E / T ports	3/4" G



N°	Description	Q.ty
1	Bosch Rexroth relief valve VSN-08A *	1
2	Connector DIN 43650 ISO 4400	1
3	Bosch Rexroth solenoid valve VEI-16-08A-NC OD.15.05.18-Y-000000 (normally closed) o VEI-16-08A-NA OD.15.06.18-Y-000000 (normally open) depicted without manual override *	1
4	Bosch Rexroth coil D36 - CLASS H DIN 43650 ISO 4400 *	1
5	Restrictor Bosch Rexroth	1
6	Ø 8,5 through hole for mounting	2
7	Compensator Bosch Rexroth	1

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue

Ordering code

H 1 7 0 4 5 A - - - - -

Hydrover product

Product series

17 series - Inline valves

Product ID

Manifold material

Aluminium

Relief valve adjustment type *

Screw = S
Knob = K

Relief valve adjustment pressure range *

10-70 bar = 0
35-140 bar = 1
105-210 bar = 2
175-350 bar = 3
35-350 bar (adj. knob) = 3

Solenoid valve coil connection *

1 = DIN 43650
ISO 4400

Solenoid valve coil voltage *

OB = 12V DC
OC = 24V DC
OD = 48V DC
OU = 110V RAC
AH = 230V RAC

Solenoid valve manual override *

E0 = Without
EP = Push (NA)
EV = Screw (NC)
EG = Push and twist (NA)

Solenoid valve spool type *

NA = Normally open
NC = Normally closed

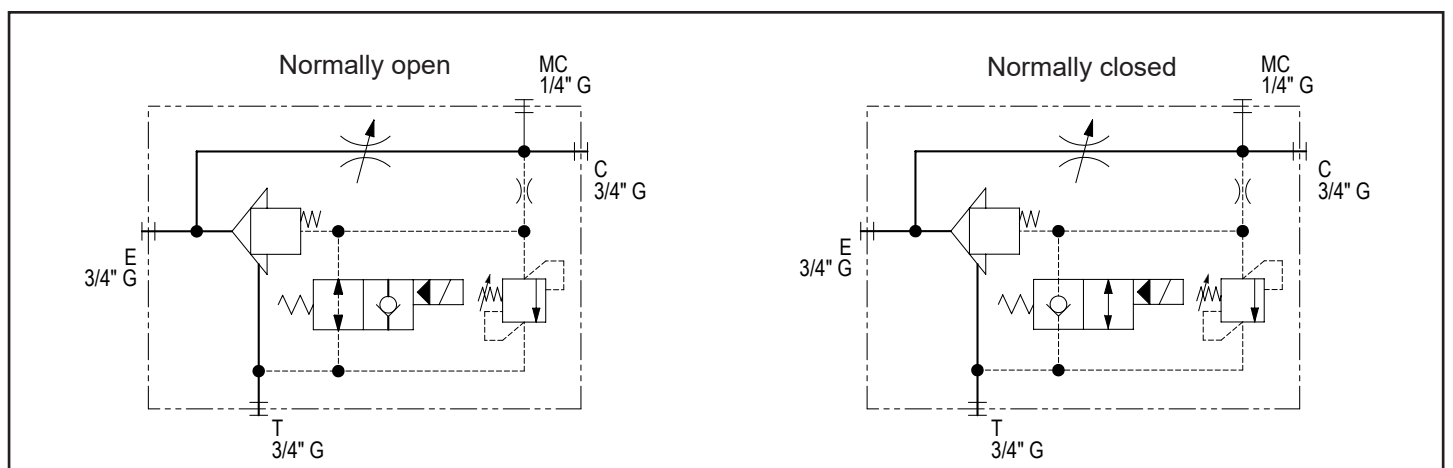
* Omit if not required. For example, to order the product without the solenoid cartridge valve, omit the coil connection, coil voltage and manual override options: H17045A-S2.

The manifold will still be provided with the corresponding cavity.

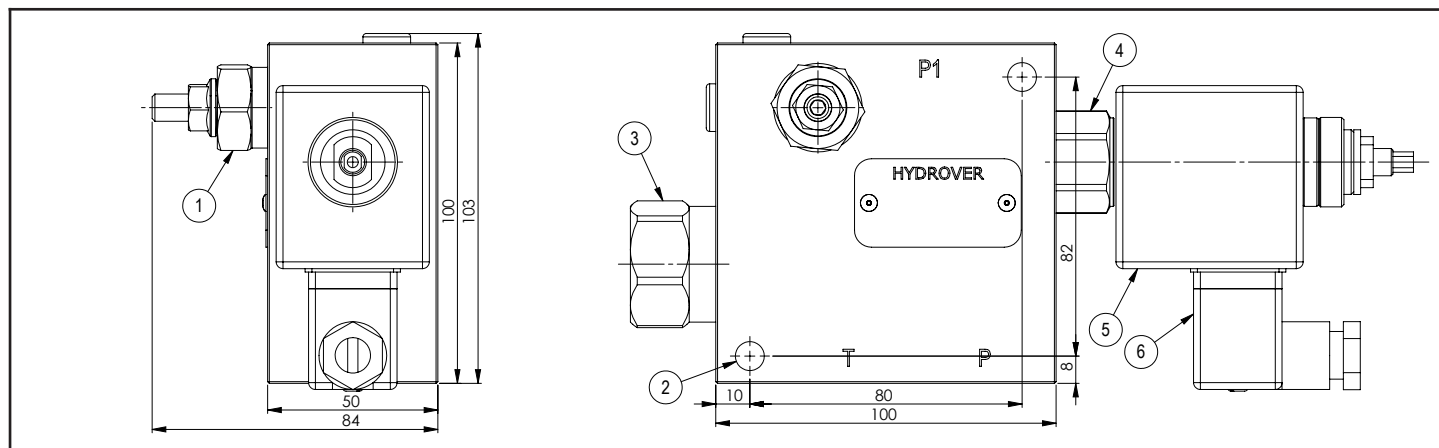
To inhibit a function, replace the related valve options with TL: eg H17045A-TL-NA-E0-OC1.

In the cavity it will be mounted a long plug.

Valve	Cavity	Long plug code
Solenoid valve VEI-16-08A-NC OD.15.05.18-Y-000000 or VEI-16 08A-NA OD.15.06.18-Y-000000	CA-08A-2N	0489A2005600000
Pressure relief valve VSBN-08A	CA-08A-2N	0489A2005600000

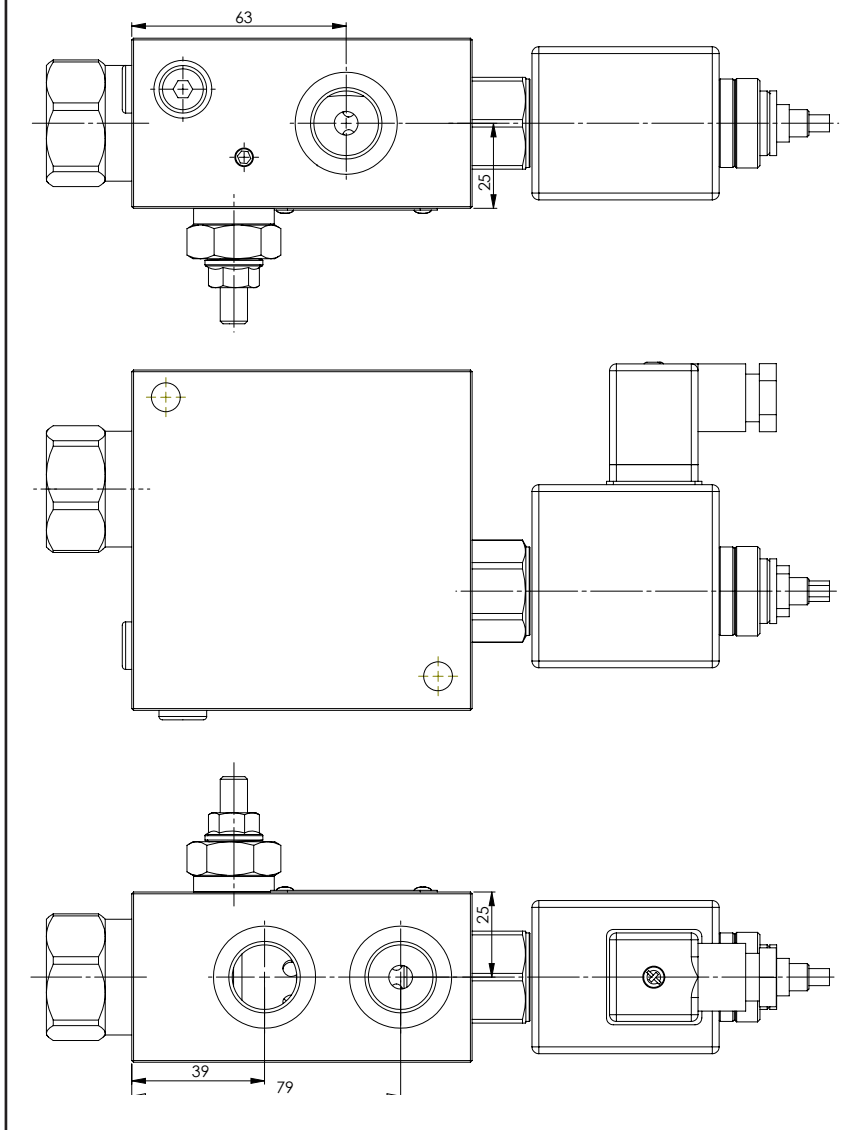
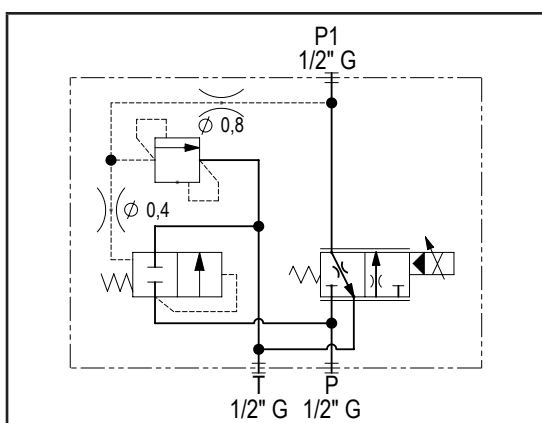
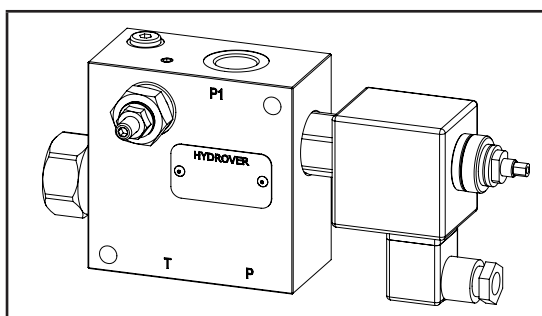


Inline valve with proportional 3 way compensated flow regulation and relief **H17020**



Dimensions in mm

Technical data	
Max. pressure	210 bar
Input max. flow	65 lpm
Weight	Aluminium 2,3 Kg Steel 4,4 Kg
Manifold material	Aluminium or steel
P / P1 / T ports	1/2" G



N°	Description	Q.ty
1	Bosch Rexroth relief valve VSN-08A *	1
2	Ø 8,5 through hole for mounting	2
3	Pressure compensator	1
4	Bosch Rexroth proportional solenoid valve VEP-5A-2Q-09 / OD.92.05.77-Y-Z *	1
5	Bosch Rexroth coil S5-356 - CLASS H DIN 43650 ISO 4400 *	1
6	Connector DIN 43650 ISO 4400	1

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue

Ordering code

H	1	7	0	2	0	_	_	_	_	-	_	_	_	-	_	_	_
---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

Hydrover product

Product series

17 series - Inline valves

Product ID

Manifold material

Aluminium
Steel

= A
= S

Compensator spring

5.5 bar (standard)
12.5 bar
19 bar

= 6
= 1
= 2

Relief valve adjustment type *

Screw
Knob

= S
= K

Relief valve adjustment pressure range *

10-70 bar
35-140 bar
105-210 bar
175-350 bar
35-350 bar (adj. knob)

= 0
= 1
= 2
= 3
= 3

Proportional solenoid valve coil connection *
1 = DIN 43650 ISO 4400

Proportional solenoid valve coil voltage *

OB = 12V DC
OC = 24V DC

Proportional solenoid valve max. flow *

1 = 20 lpm
2 = 30 lpm
3 = 40 lpm

To evaluate the max. flow refer to **VEP-5A-2Q-09 / OD.92.05.77-Y-Z** proportional solenoid valve catalogue and to the compensator spring.

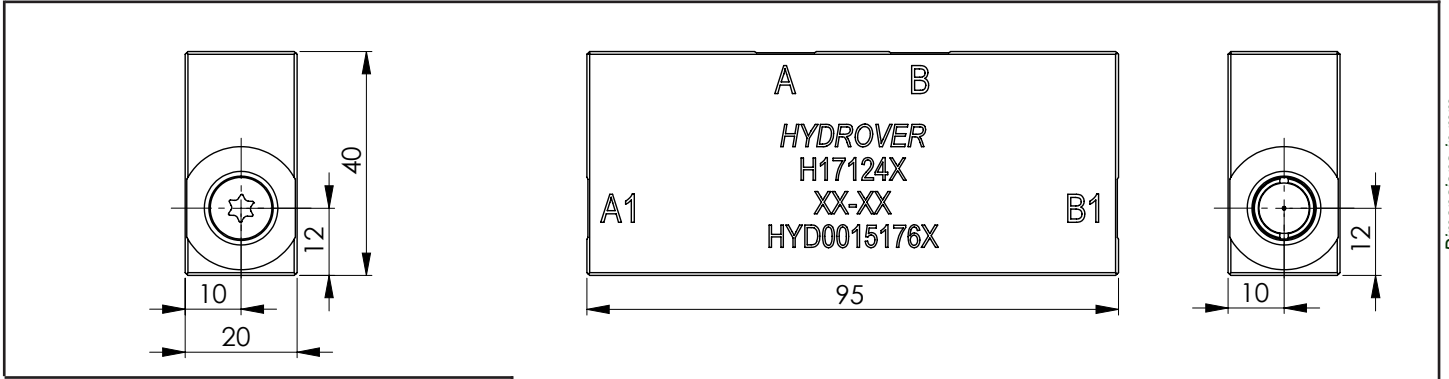
Proportional solenoid valve manual override *

E0 = Without
EV = Screw

* Omit if not required. For example, to order the product without the proportional solenoid cartridge valve, omit the coil connection, coil voltage, max. flow and manual override options: H17020A6S2.
The manifold will still be provided with the corresponding cavity.
To inhibit a function, replace the related valve options with TL: eg H17020A6TL-EV2-OC1.
In the cavity it will be mounted a long plug.

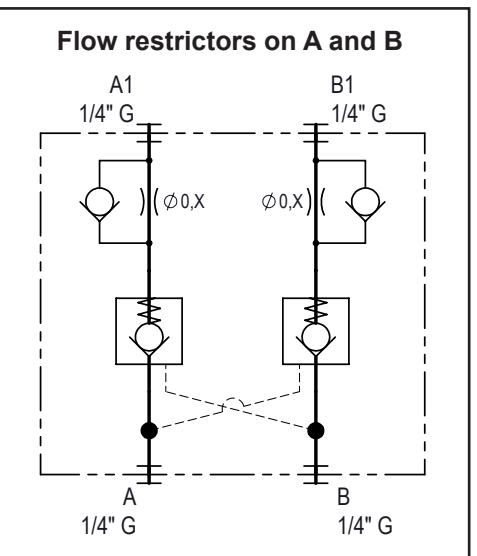
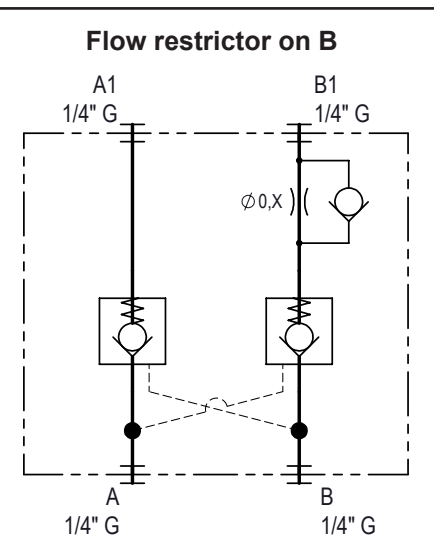
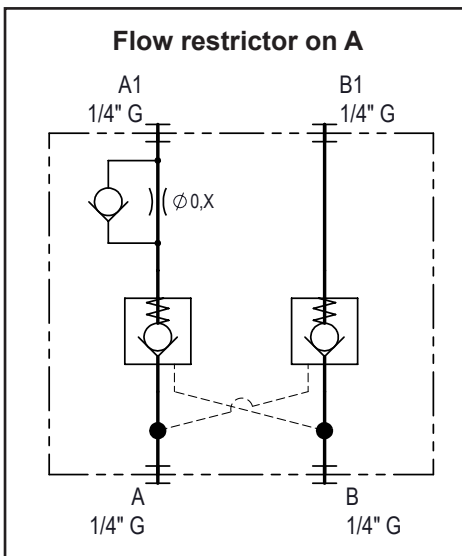
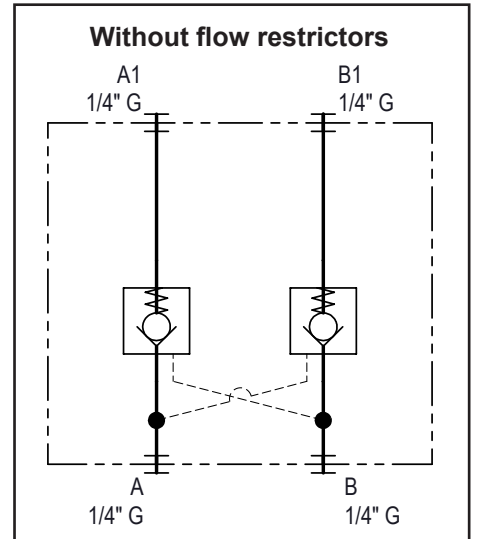
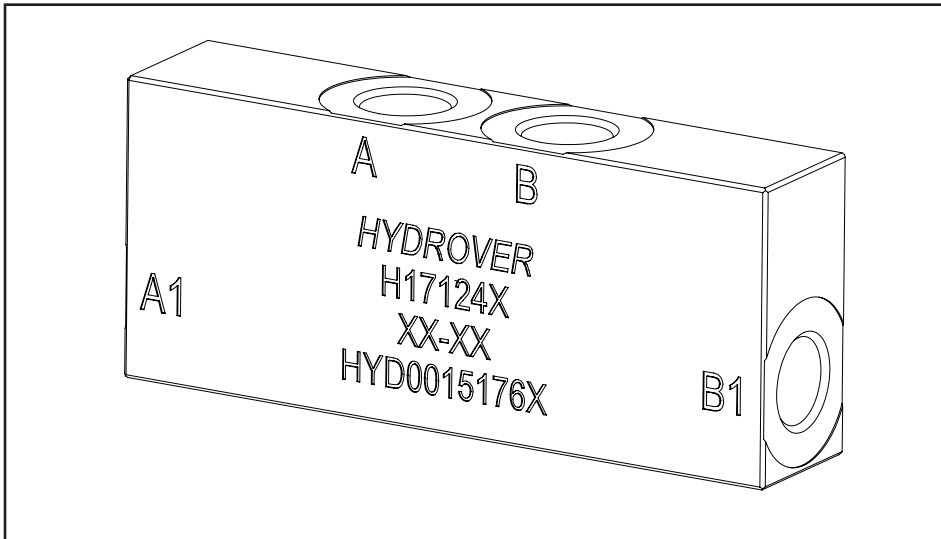
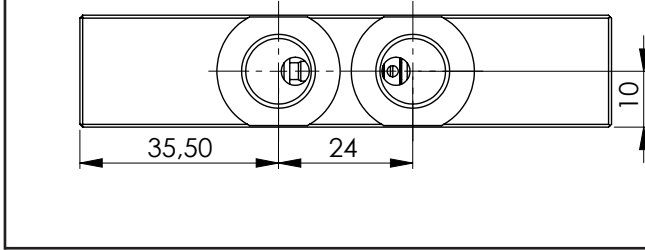
Valve	Cavity	Long plug code
Bosch Rexroth relief valve VSBN-08A	CA-08A-2N	0489A2005600000

Inline double pilot operated check valve in stainless steel 1/4" G **H17124**



Dimensions in mm

Technical data	
Max. pressure	350 bar
Max. flow	20 lt/1
Weight	0,7 Kg
Manifold material	Stainless steel 316L
All ports	1/4" G



Ordering code

H	1	7	1	2	4	X	-	-	-	-
---	---	---	---	---	---	---	---	---	---	---

Hydrover product

Product series

17 series - Inline valves

Product ID

Manifold material

Stainless steel 316L

Flow restrictor on B

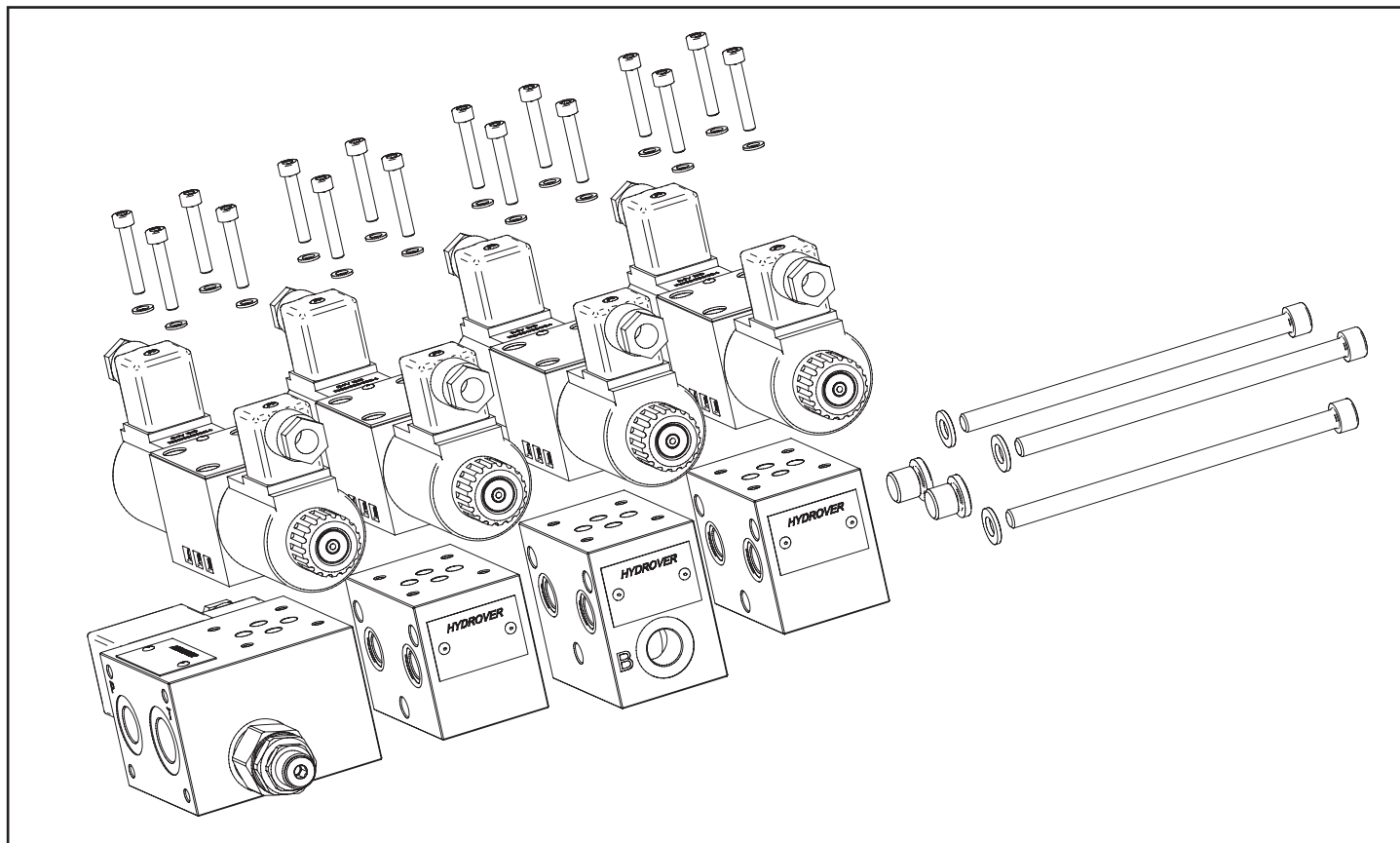
00 =	Without
NF	With flow restrictor to drill
03 =	0,3 mm
04 =	0,4 mm
05 =	0,5 mm
06 =	0,6 mm
07 =	0,7 mm

Flow restrictor on A

00 =	Without
NF	With flow restrictor to drill
03 =	0,3 mm
04 =	0,4 mm
05 =	0,5 mm
06 =	0,6 mm
07 =	0,7 mm

31 SERIES

Modular Cetop 3 subplates for parallel circuits

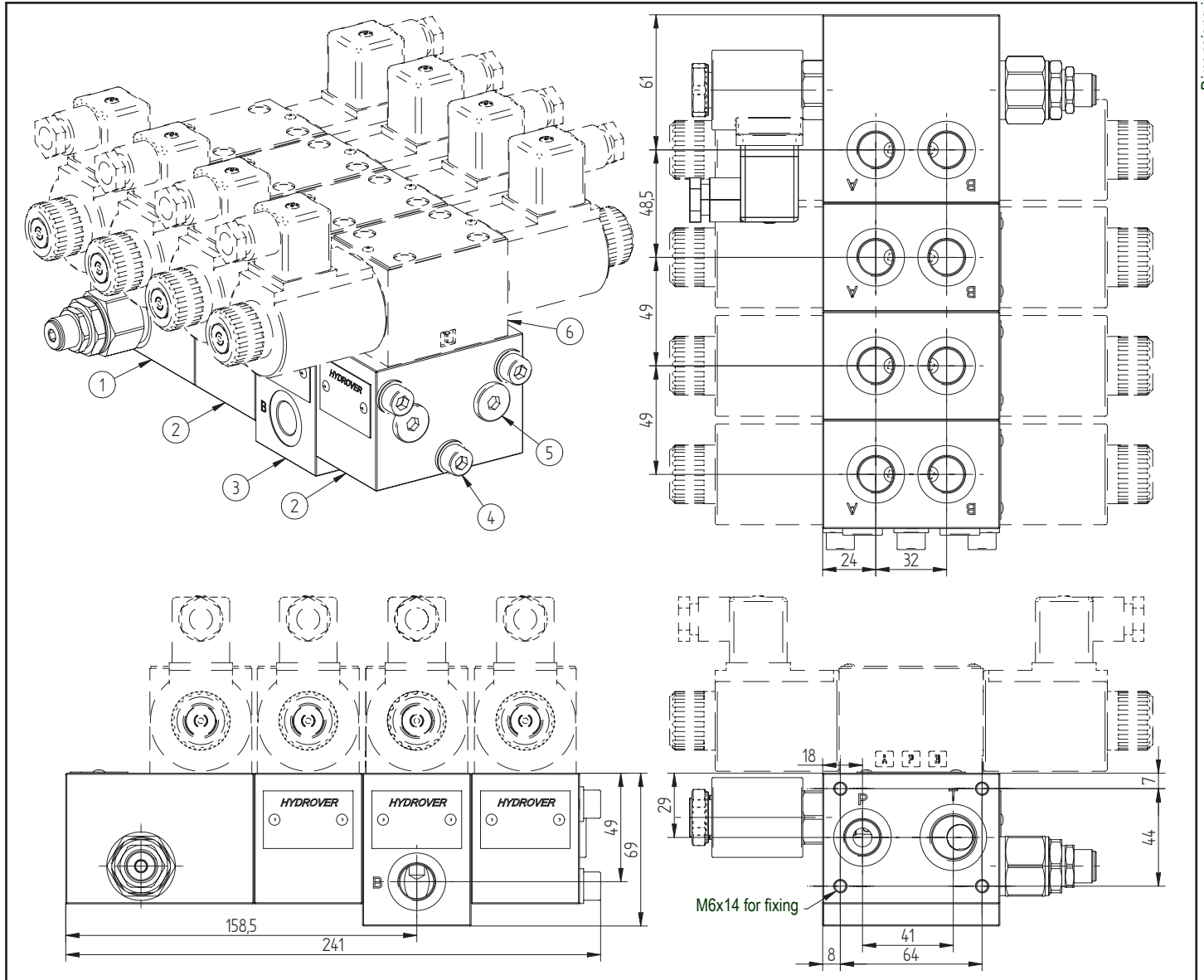


31 SERIES is suitable for assembling multi-purposes Cetop 3 modular systems with parallel circuit. It's divided into 2 families with compatible flanges.

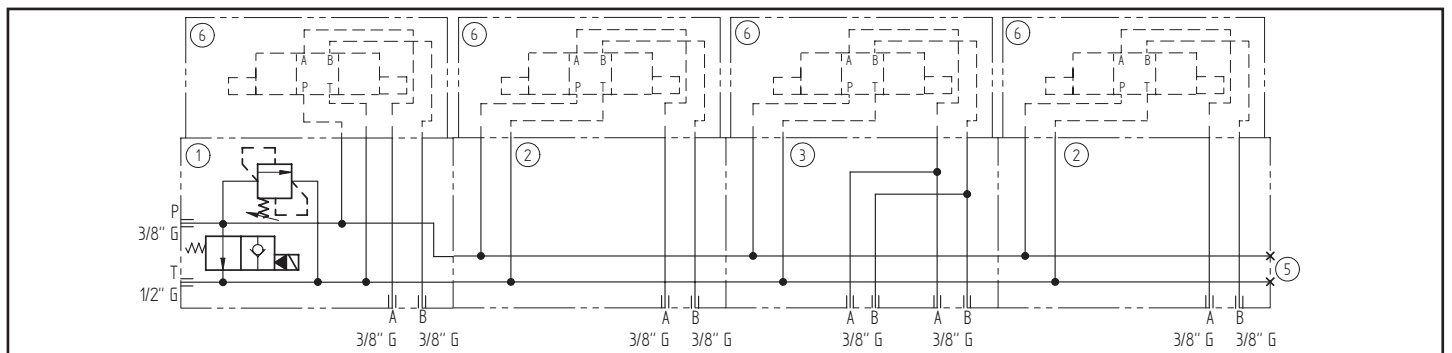
Standard 31 SERIES - It has A / B / P 3/8" G and T 1/2" G ports threads. 1/4" G P T ports threads on all inlet and intermediate subplates allow in the last element to close easily P and T with 2 caps without using a terminal element. You can also replace the P with a pressure gauge.

Hi flow 31 SERIES - It has A / B / P 1/2" G and T 1/2" G ports threads. It's build for having a flow input up to 70 lpm. It has mounting holes both front and rear ports.

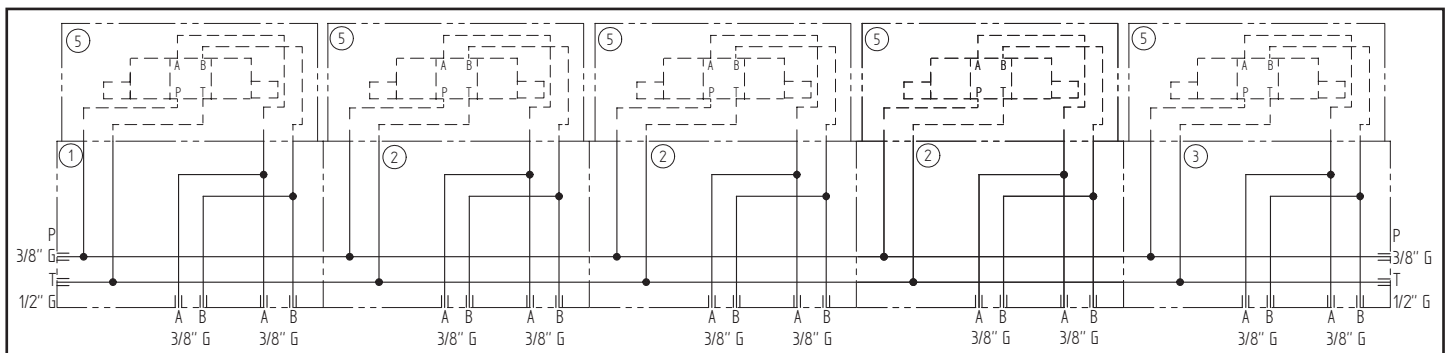
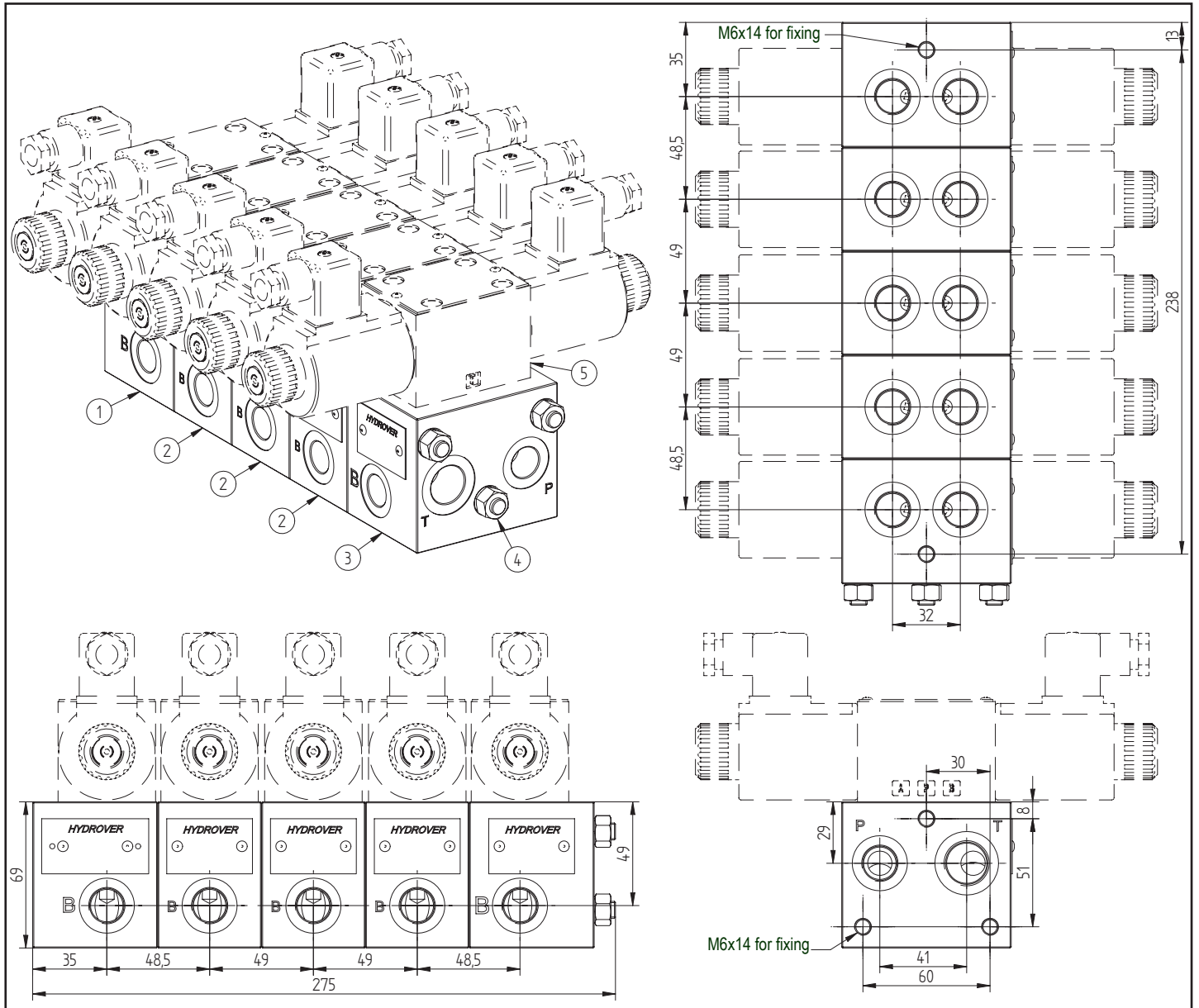
N°	Ordering code	Description	Q.ty
1	H3104A1P-S2-E0-OC1	Subplate with one Cetop 3 station / 40-200 bar relief valve / bypass valve / back A-B 3/8" G / crossing P 3/8" G - T 1/2" G / 24V DC DIN	1
2	H3105A	Intermediate / closing module with 1 Cetop 3 station / side A-B ports	2
3	H3101A	Intermediate / closing module with 1 Cetop 3 station / side A-B ports	1
4	HKVM8X160-3	Assembling kit HKVM8X160-3	1
5	TPCLG 1/4	Plug DIN908 1/4" G	2
6	Cetop 3 valve 4/3	Cetop 3 4/3 valve	4

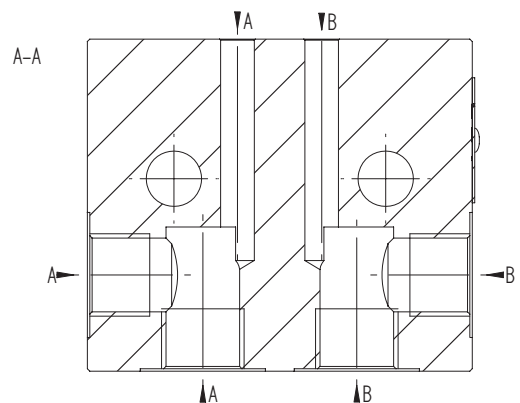
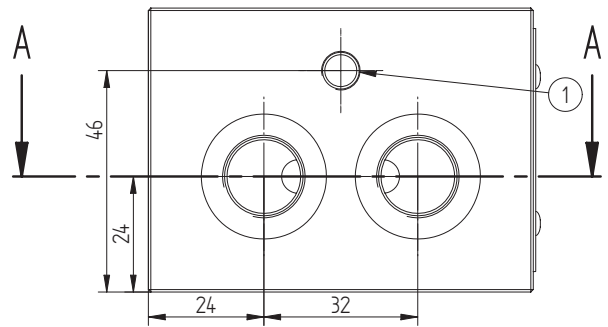
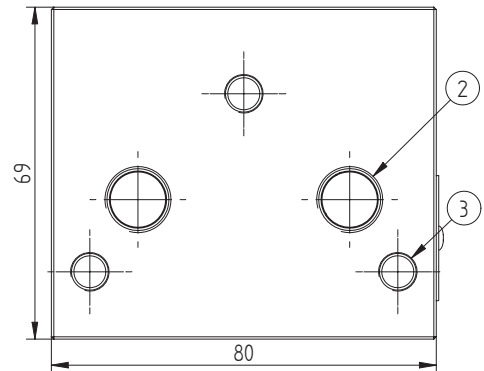
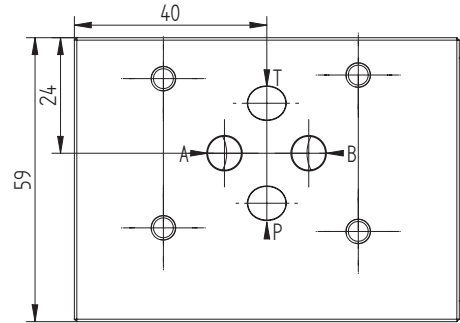
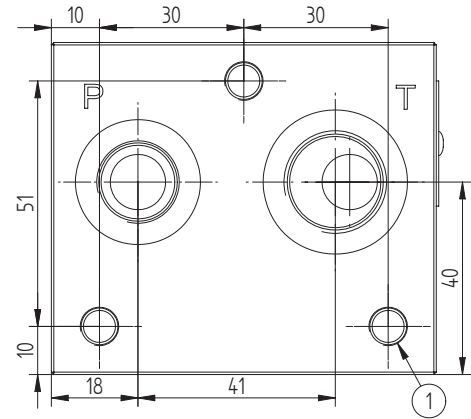
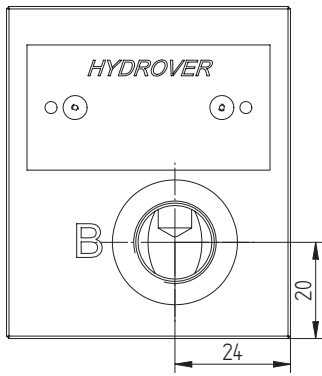


Dimensions in mm



N°	Ordering code	Description	Q.ty
1	H3100A1P	Subplate with one Cetop 3 station / Back and side A-B 3/8" G ports / crossing P 3/8" G - T 1/2" G	1
2	H3101A	Intermediate / closing module with 1 Cetop 3 station / side A-B ports	3
3	H3102A	Closing module with one Cetop 3 station / Back and side A-B 3/8" G ports / crossing P 3/8" G - T 3/8" G	1
4	HKTM8X225DL-3	Assembling kit HKTM8X225DL-3	1
5	Cetop 3 valve 4/3	Cetop 3 4/3 valve	4

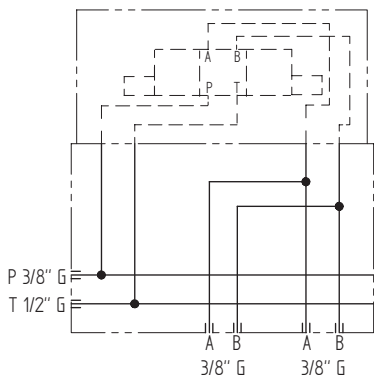
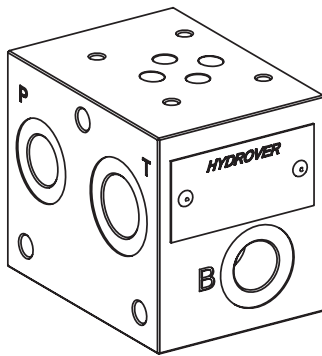




Dimensions in mm

Technical data

Max. pressure	250 bar
Weight	0,8 Kg
Manifold material	Aluminium
A / B / P ports	3/8" G
T port	1/2" G



N°	Description	Q.ty
1	M8x15 thread for mounting	4
2	Ø 11,5 through hole with 1/4" G thread (P-T)	2
3	M8x15 for tie rod	3

Ordering code

H	3	1	0	0	A	1	P
---	---	---	---	---	---	---	---

Hydrover product

Product series

31 series - Modular Cetop 3 subplates for parallel circuits

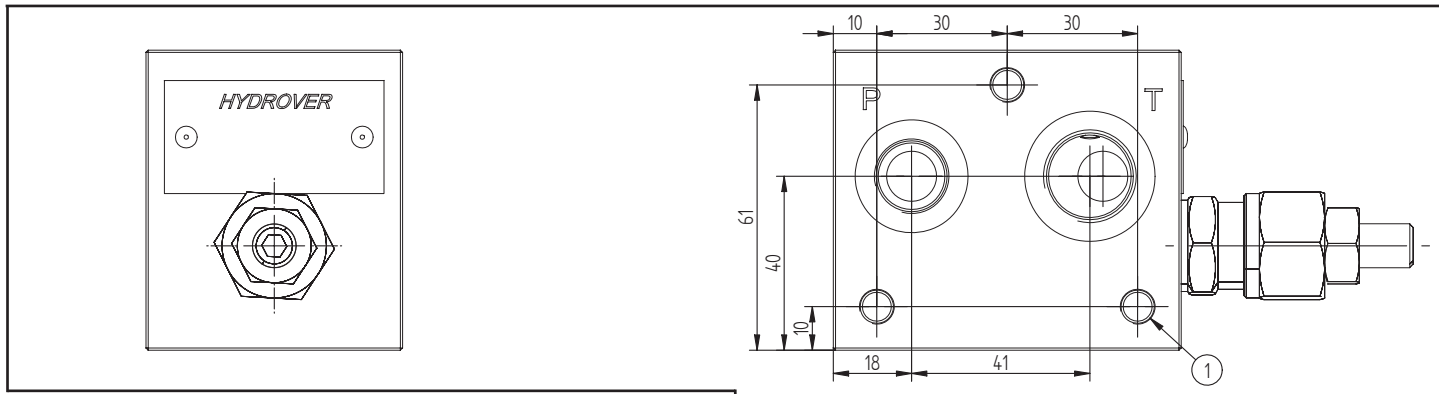
Number of Cetop 3 stations
1 station

Manifold material
Aluminium

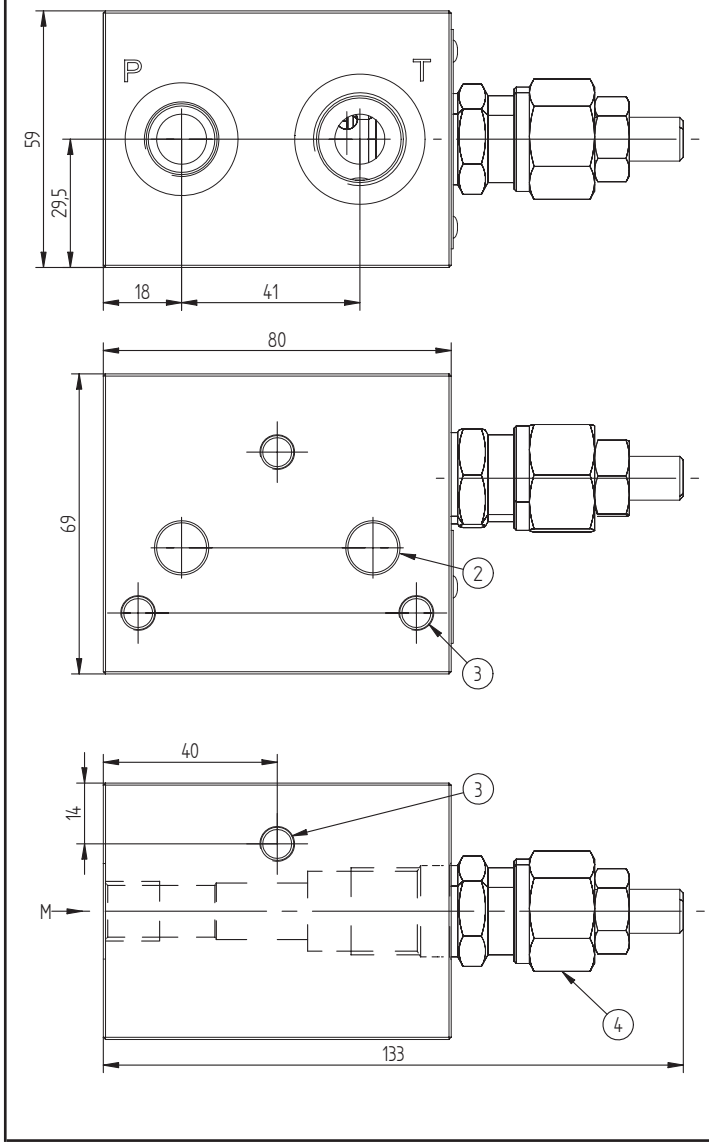
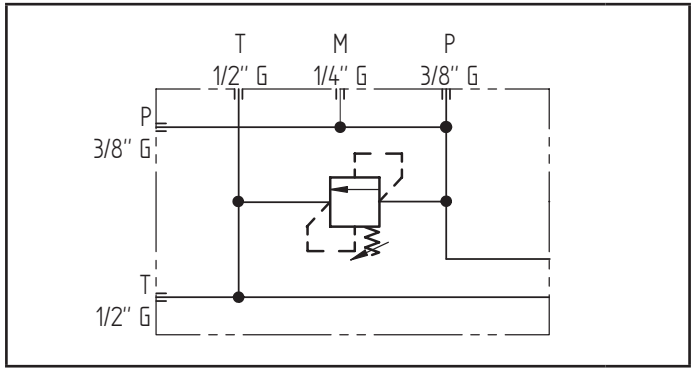
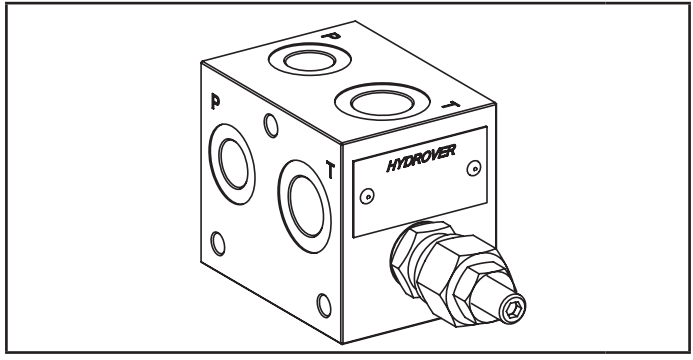
Product ID

Note: to add stations use the subplates **H3101**, **H3105** and **H3102**.

Inlet plate with relief valve / crossing and top P-T ports **H3103**



Technical data	
Max. pressure	250 bar
Max. flow	30 lpm *
Weight	1 Kg
Manifold material	Aluminium
M port	1/4" G
P port	3/8" G
T port	1/2" G



N°	Description	Q.ty
1	M8x15 thread for mounting	4
2	Ø 11,5 through hole with 1/4" G thread (P-T)	2
3	M8x15 for tie rod	3
4	Bosch Rexroth relief valve VS-30 * depicted with screw adjustment	1

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue

Ordering code

H	3	1	0	3	A	-	-	-
---	---	---	---	---	---	---	---	---

Hydrover product

Product series

31 series - Modular Cetop 3 subplates for parallel circuits

Product ID

Relief valve adjustment pressure range *

- 0 = 5-50 bar
- 1 = 30-100 bar
- 2 = 50-210 bar
- 3 = 100-350 bar

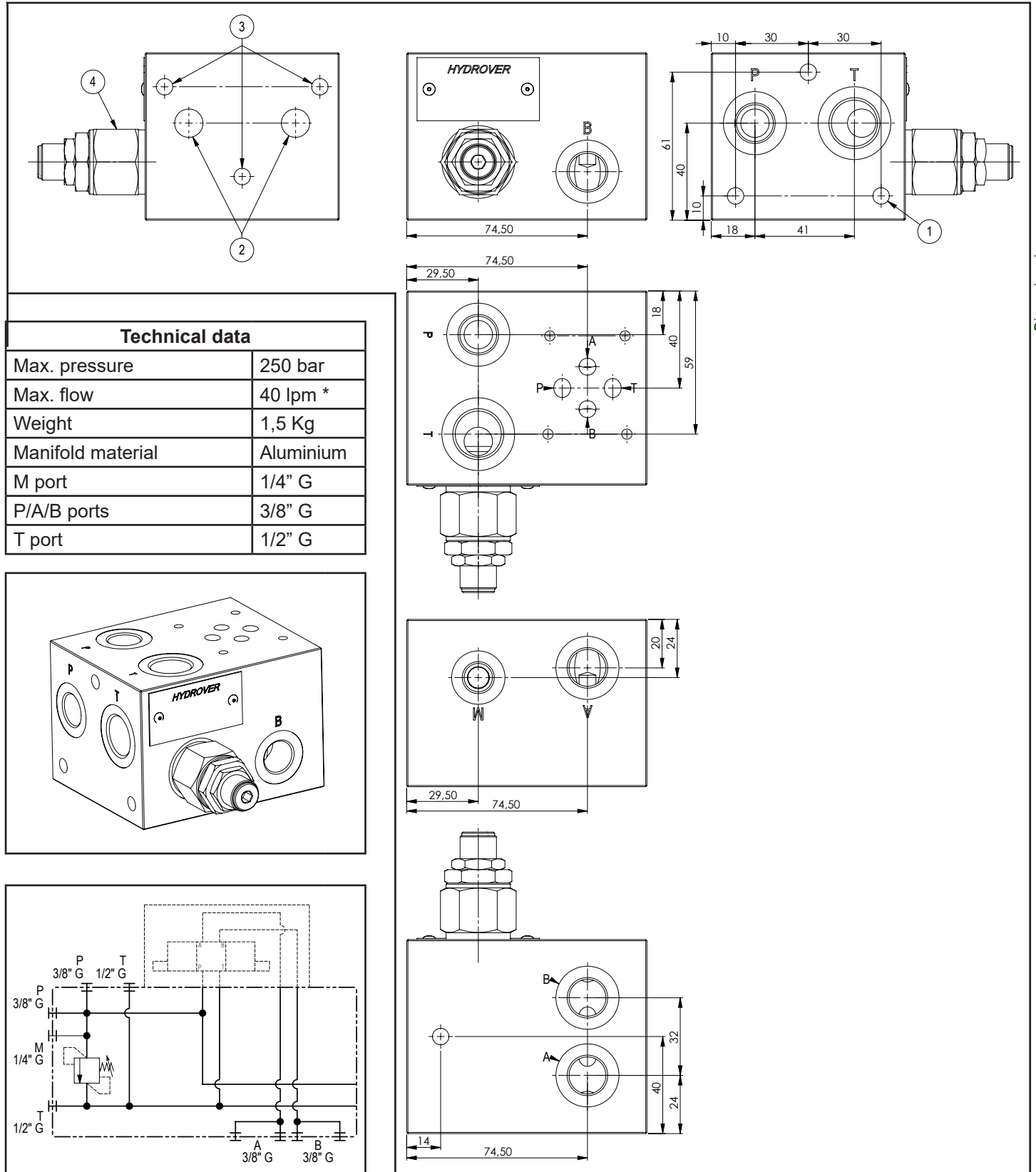
Relief valve adjustment type *

- S = Screw
- K = Knob

Manifold material
Aluminium

* Omit if not required. To order the product without the pressure relief cartridge valve, omit the pressure range and the adjustment type options: H3103A.
The manifold will still be provided with the corresponding cavity.

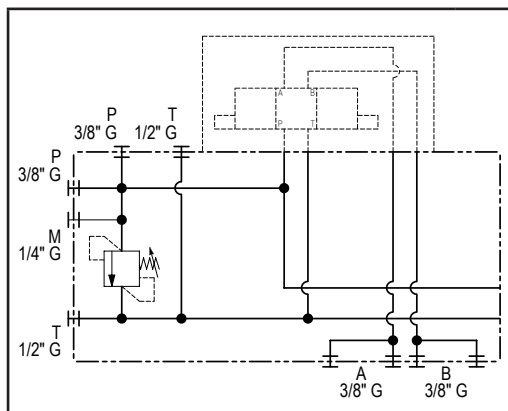
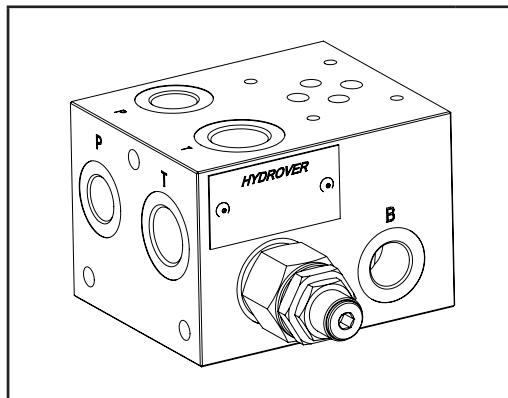
Note: to add stations use the subplates **H3101**, **H3105** and **H3102**.



Dimensions in mm

Technical data

Max. pressure	250 bar
Max. flow	40 lpm *
Weight	1,5 Kg
Manifold material	Aluminium
M port	1/4" G
P/A/B ports	3/8" G
T port	1/2" G



N°	Description	Q.ty
1	M8x15 thread for mounting	4
2	Ø 11,5 through hole with 1/4" G thread (P-T)	2
3	M8x15 for tie rod	3
4	Bosch Rexroth relief valve VMD1.070 *	1

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue

Ordering code

H	3	1	1	2	A	-	-	-
---	---	---	---	---	---	---	---	---

Hydrover product

Product series

31 series - Modular Cetop 3 subplates for parallel circuits

Product ID

Relief valve adjustment pressure range *

- 0 = 10-60 bar
- 1 = 40-110 bar
- 2 = 110-220 bar
- 3 = 220-260 bar

Relief valve adjustment type *

S = Screw

Manifold material
Aluminium

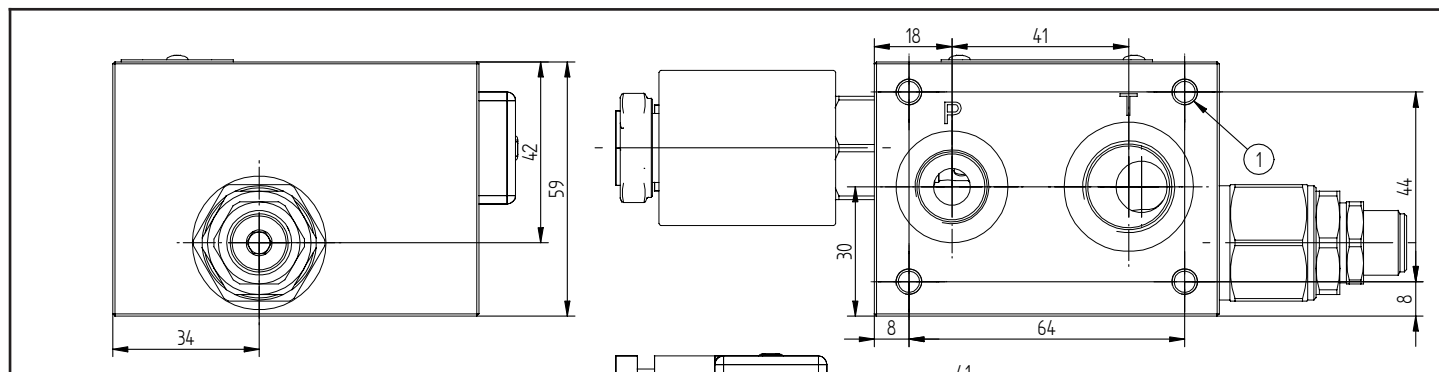
* Omit if not required. To order the product without the pressure relief cartridge valve, omit the pressure range and the adjustment type options: H3112A.
The manifold will still be provided with the corresponding cavity.
To inhibit the relief valve, replace the valve options with TL: H3112A-TL.
In the cavity it will be mounted a long plug.

Valve	Cavity	Long plug code
Pressure relief valve VMD1.070	CA-10A-2N	0489A2008500000

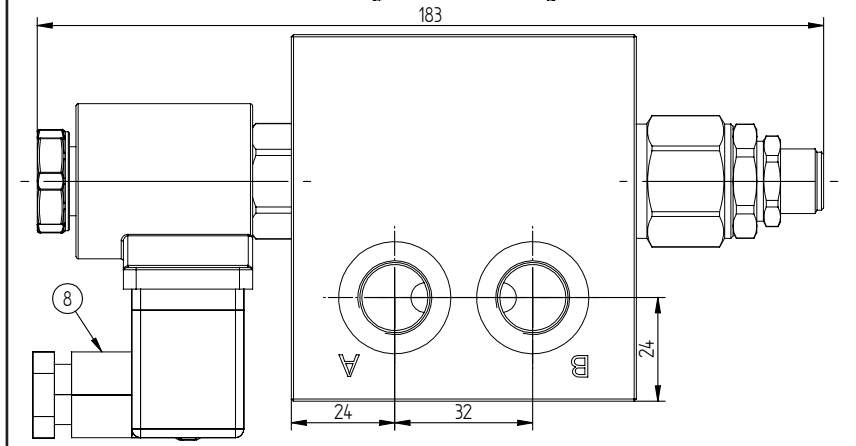
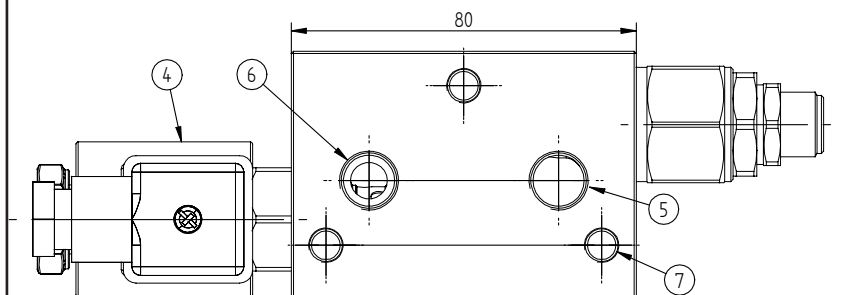
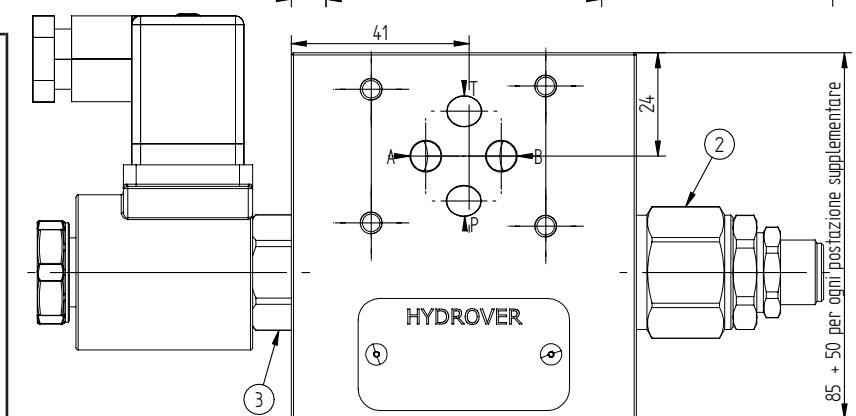
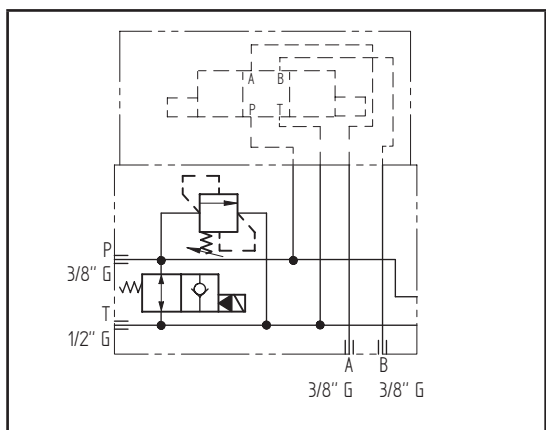
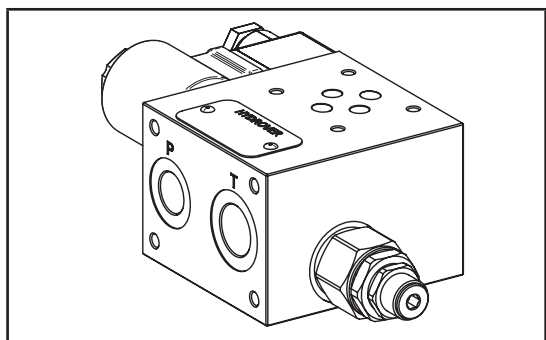
Note: to add stations use the subplates **H3101**, **H3105** and **H3102**.

Inlet monoblock subplate from 1 to 4 stations / extensible relief and bypass valve / back A-B ports / crossing P-T ports

H3104



Technical data	
Max. pressure	250 bar
Max. flow	40 lpm *
Weight 1P, 1,5 Kg / 2P, 2,1 Kg / 3P, 2,7 Kg / 4P, 3,3 Kg	
Manifold material	Aluminium
A / B / P ports	3/8" G
T port	1/2" G



Dimensions in mm

N°	Description	Q.ty
1	M6x14 thread for mounting	4
2	Bosch Rexroth relief valve VMD1.040 *	1
3	Bosch Rexroth bypass solenoid valve VEI-16-08A-NA OD.15.06.18-Y-000000 depicted without manual override *	1
4	Bosch Rexroth coil D36 - CLASS H DIN 43650 ISO 4400 *	1
5	Ø 11,5 through hole with 1/4" G thread (T)	1
6	Ø 8,5 through hole with 1/4" G thread (P)	1
7	M8x15 for tie rod	3
8	Connector DIN 43650 ISO 4400	1

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue

Ordering code

H 3 1 0 4 A _ P - _ _ - _ _ - _ _ - _ _

Hydrover product

Product series

31 series - Modular Cetop 3 subplates for parallel circuits

Product ID

Manifold material

Aluminium

Number of Cetop 3 stations

- 1 station = 1P
- 2 stations = 2P
- 3 stations = 3P
- 4 stations = 4P

Bypass solenoid valve coil connection *

- 1 = DIN 43650
- ISO 4400

Solenoid valve coil voltage *

- OB = 12V DC
- OC = 24V DC
- OD = 48V DC
- OU = 110V RAC
- AH = 230V RAC

Bypass solenoid valve manual override *

- E0 = Without
- EP = Push
- EG = Push and twist

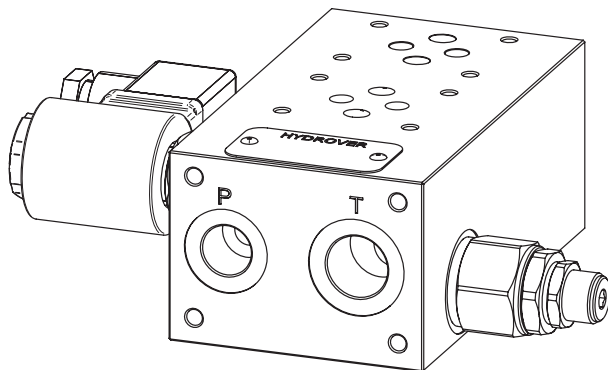
Relief valve adjustment pressure range *

- 1= 25-120 bar
- 2= 40-200 bar
- 3= 200-350 bar

Relief valve adjustment type *

- S = Screw

2 stations configuration (2P)



* Omit if not required. For example, to order the product without the bypass solenoid cartridge valve, omit the coil connection, coil voltage and manual override options: H3104A3P-S2.
 The manifold will still be provided with the corresponding cavity.
 To inhibit a function, replace the related valve options with TL: eg H3104A2P-S2-TL.
 In the cavity it will be mounted a long plug.

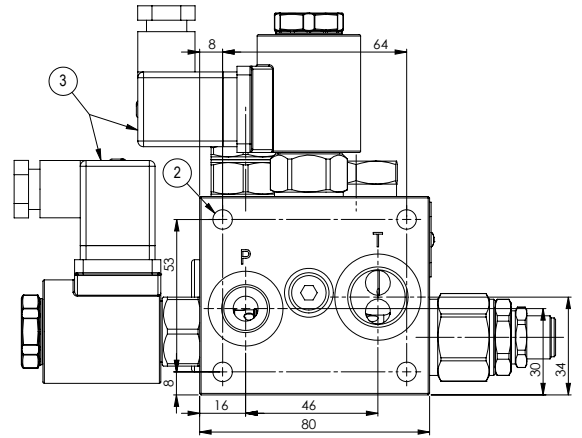
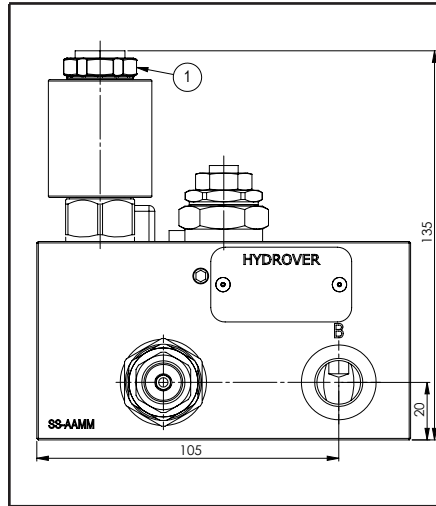
Valve	Cavity	Long plug code
Solenoid valve VEI-16-08A-NA OD.15.06.18-Y-000000	CA-08A-2N	0489A2005600000
Pressure relief valve VMD1.040	CA-10A-2N	0489A2008500000

Note: to add stations use the subplates **H3101**, **H3105** and **H3102**.

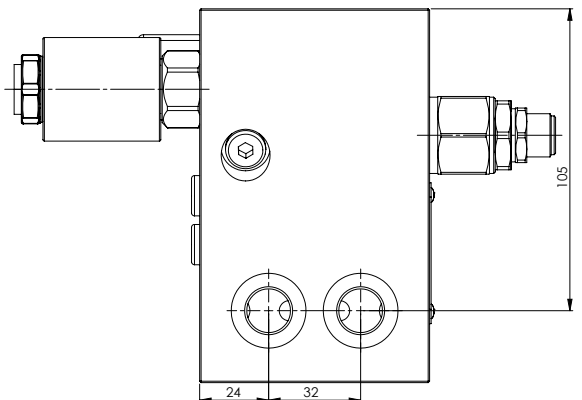
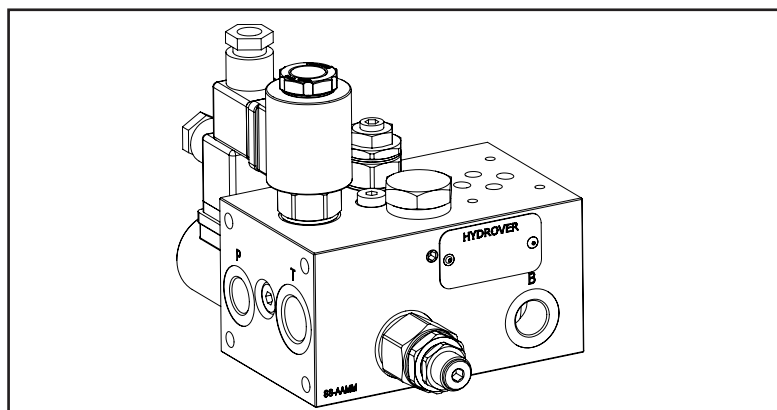
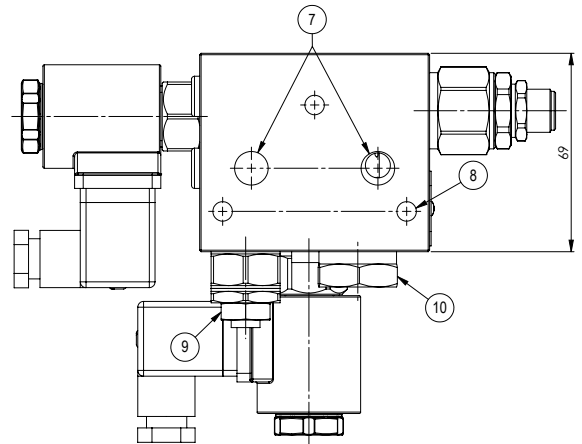
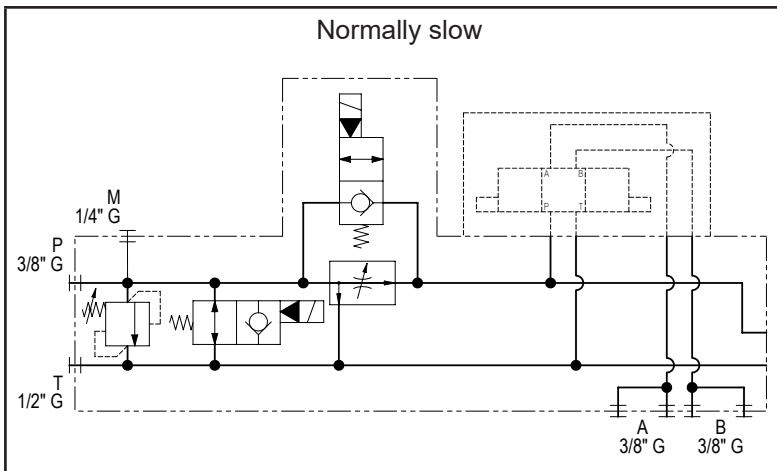
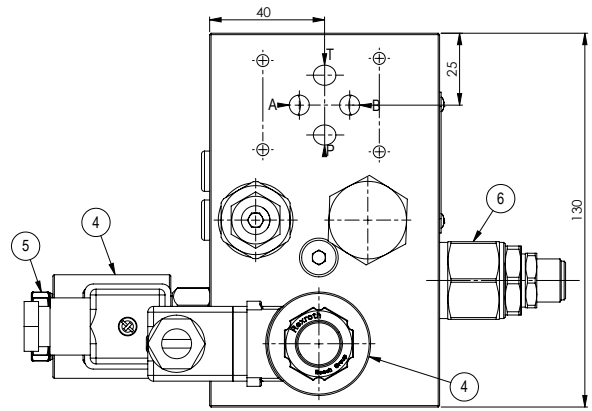
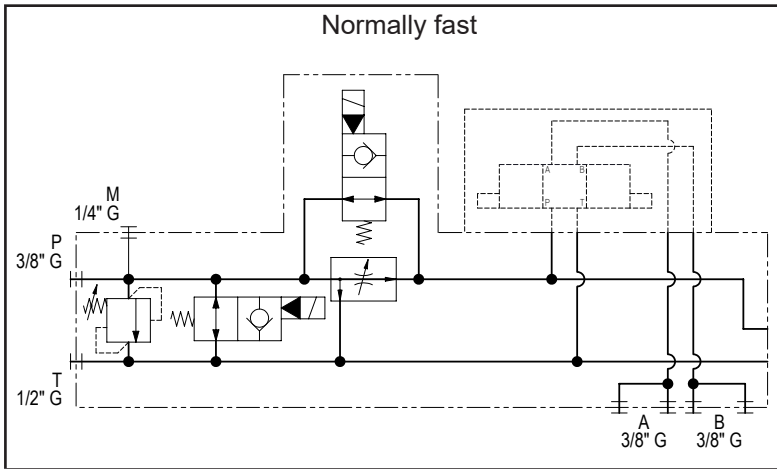
Inlet subplate with 1 Cetop 3 station / extensible / relief and bypass valve
3 way flow regulation / fast slow speed / side and back A-B ports / crossing P-T ports

H3113

Technical data	
Max. pressure	250 bar
Inlet max. flow	40 lt/1
Reg. max. flow	30 lt/1
Manifold material	Aluminium
M port	1/8" G
T port	1/2" G
A / B / P ports	3/8" G
Weight	2,4 Kg



Dimensions in mm



Ordering code

H 3 1 1 3 A _ _ _ - _ - - _ _ - _ _

Hydrover product

Product series
31 series - Modular Cetop 3 subplates for parallel circuits

Product ID

Manifold material
Aluminium

Compensator spring
6 bar (standard) = 6
12 bar = 1

Restrictor adjustment type *
Screw = S
Knob = K

Relief valve adjustment type *
Screw = S

Solenoid valves coil connection *
1 = DIN 43650
ISO 4400

Solenoid valve coil voltage *
OB = 12V DC
OC = 24V DC
OD = 48V DC
OU = 110V RAC
AH = 230V RAC

Bypass solenoid valve manual override *
E0 = Without
EP = Push
EG = Push and twist

Slow or fast in normal position *
NL = Normally slow
NR = Normally fast

Relief valve adjustment pressure range *
1 = 25-120 bar
2 = 40-200 bar
3 = 200-350 bar

N°	Description	Q.ty
1	Bosch Rexroth solenoid valve for fast slow function VEI-16-08A-NC OD.15.05.18-Y-000000 (normally slow) or VEI-16-08A-NA OD.15.06.18.A.000000 (normally fast) **	1
2	M8x12 thread for mounting	4
3	Connector DIN 43650 ISO 4400	2
4	Bosch Rexroth coil D36 - CLASS H DIN 43650 ISO 4400 **	2
5	Bosch Rexroth bypass solenoid valve VEI-16-08A-NA OD.15.06.18-Y-000000 **	1
6	Bosch Rexroth relief valve VMD1.040 **	1
7	Ø 11,5 through hole with 1/4" G thread (P-T)	2
8	M8x15 for tie rod	3
9	Bosch Rexroth flow restrictor OD.21.01-X-56 ** depicted with screw adjustment	2
10	Compensator	1

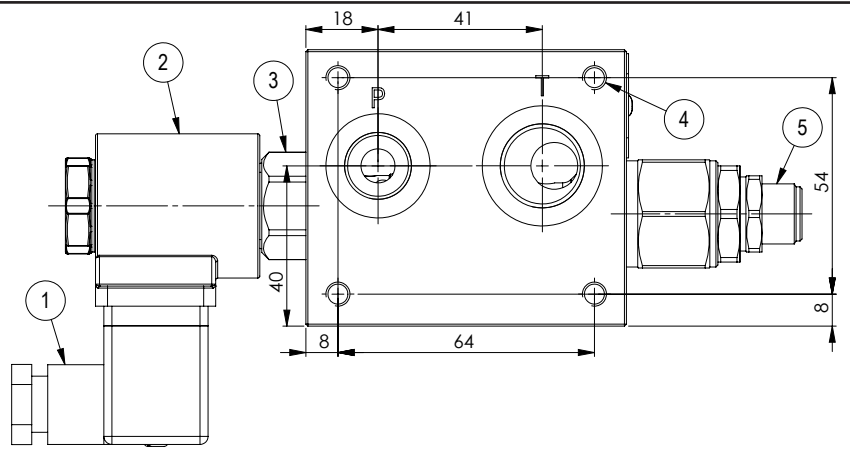
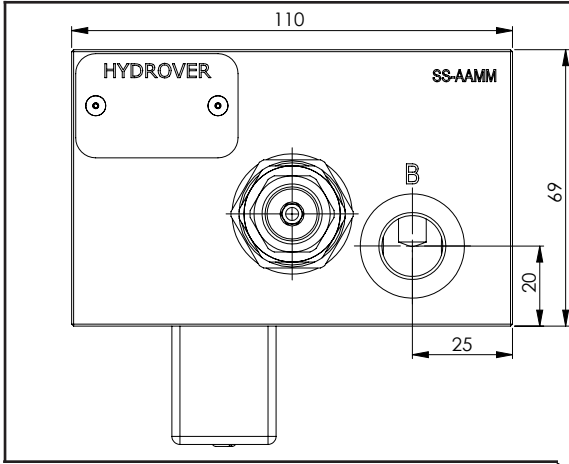
** for complete technical information, click on the blue link or go to the components section at the end of the catalogue

* Omit if not required. For example, to order the product without the fast slow solenoid valve, omit the variable "Slow or fast in normal position": H3113A4SS2-E0-OC1. The manifold will still be provided with the corresponding cavity. Valves for fast slow and bypass use CA-08A-2N cavity (long plug code **0489A2005600000**), and relief CA-10A-2N cavity (long plug code **0489A2008500000**). To inhibit a function, replace the related valve options with TL: eg H3106A3-S2-TL-TL.

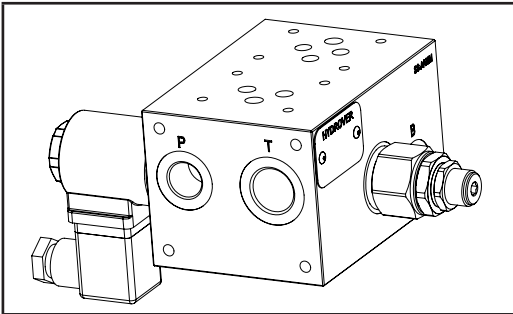
Note: to add stations use the subplates **H3101**, **H3105** and **H3102**.

Inlet subplate with 1 Cetop 3 station for 2 or 3 ways flow regulator, 1 Cetop 3 station for directional valve / relief and bypass valves / side and back A-B ports / crossing P-T ports

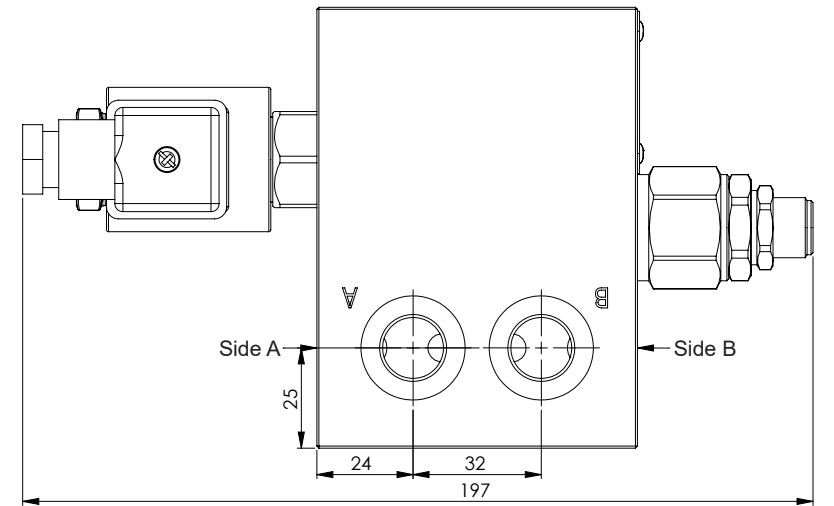
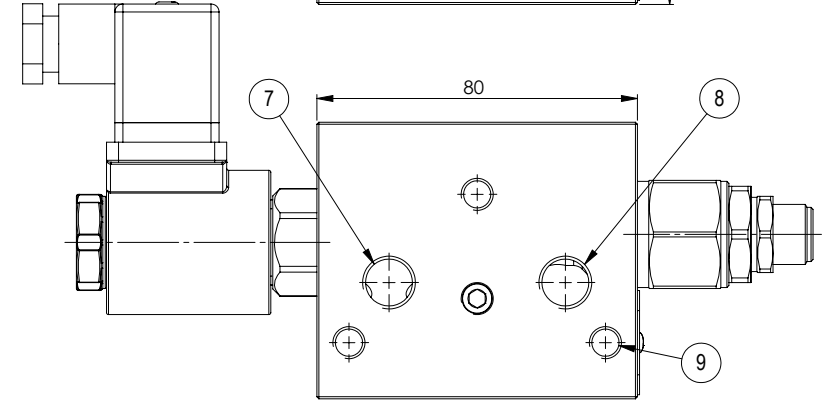
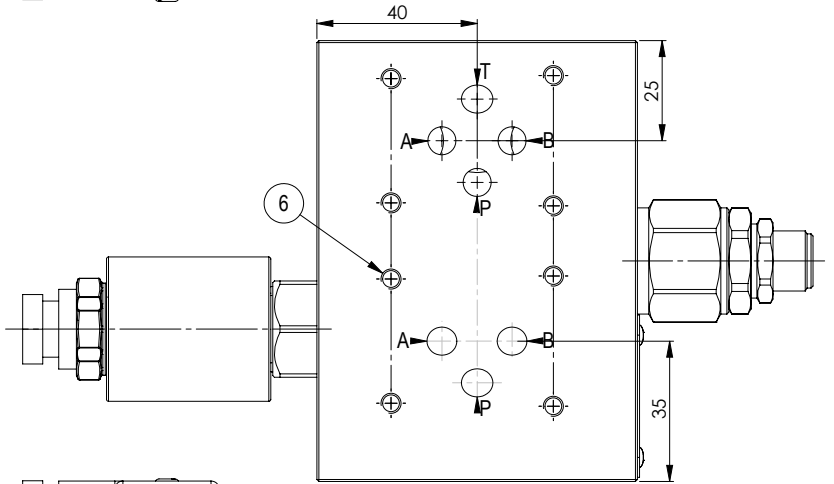
H3110



Technical data	
Max. pressure	250 bar
Max. flow	40 lpm *
Weight	2 Kg
Manifold material	Aluminium
M port	1/8" G
A / B / P ports	3/8" G
T port	1/2" G



Note: to add stations use the subplates **H3101**, **H3105** and **H3102**.



Dimensions in mm

Ordering code

H 3 1 1 0 A - - - - -

Hydrover product

Product series

31 series - Modular Cetop 3 subplates for parallel circuits

Product ID

Manifold material

Aluminium

Relief valve adjustment type *

Screw

= S

Relief valve adjustment pressure range *

25-120 bar

= 1

40-200 bar

= 2

200-350 bar

= 3

Bypass solenoid valve coil connection *

1 = DIN 43650 ISO 4400

Solenoid valve coil voltage *

OB = 12V DC

OC = 24V DC

OD = 48V DC

OU = 110V RAC

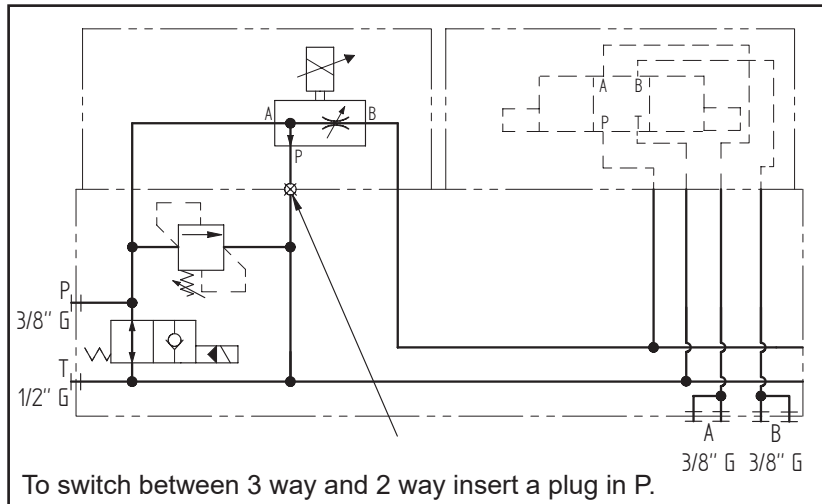
AH = 230V RAC

Bypass solenoid valve manual override *

E0 = Without

EP = Push

EG = Push and twist

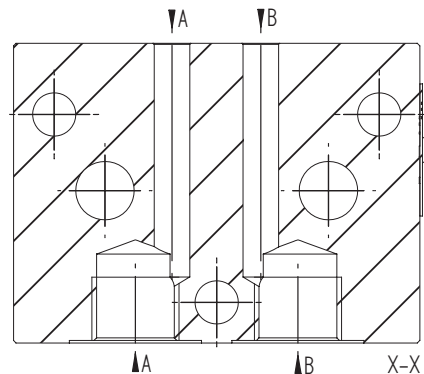
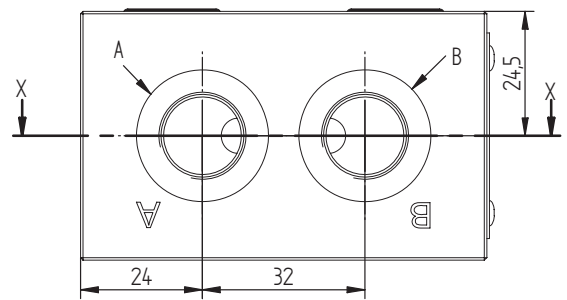
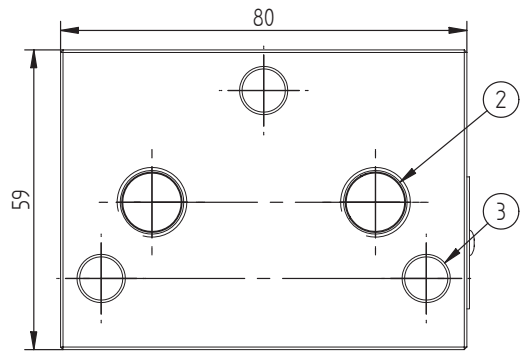
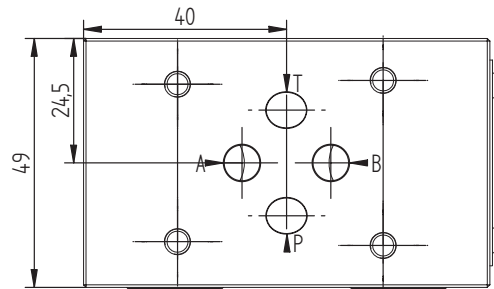
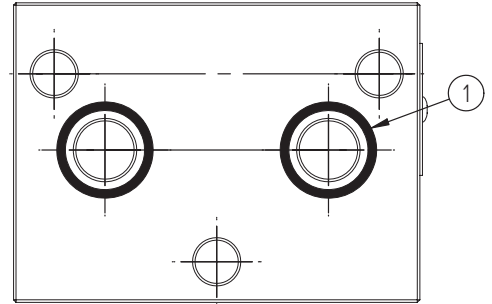
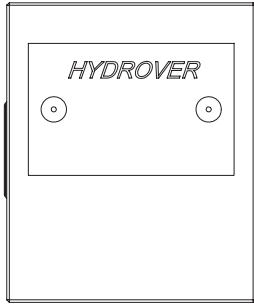


* Omit if not required. For example, to order the product without the bypass solenoid cartridge valve, omit the coil connection, coil voltage and manual override options: H3110A-S2. The manifold will still be provided with the corresponding cavity.

To inhibit a function, replace the related valve options with TL: eg H3110A-S2-TL. In the cavity it will be mounted a long plug.

N°	Description	Q.ty
1	Connector DIN 43650 ISO 4400	1
2	Bosch Rexroth coil D36 - CLASS H DIN 43650 ISO 4400 **	1
3	Bosch Rexroth bypass solenoid valve VEI-16-08A-NA OD.15.06.18-Y-000000 **	1
4	M6x14 thread for mounting	4
5	Bosch Rexroth relief valve VMD1.040 **	1
6	Station for Cetop 3 proportional flow regulator A in B unload in P - To order separately	1
7	Ø 8,5 through hole with 1/4" G thread (P)	1
8	Ø 11,5 through hole with 1/4" G thread (T)	1
9	M8x15 for tie rod	3

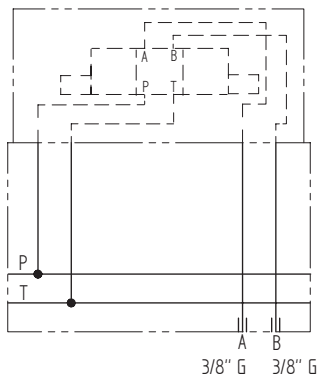
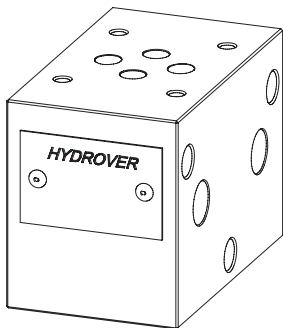
** for complete technical information, click on the blue link or go to the components section at the end of the catalogue



Dimensions in mm

Technical data

Max. pressure	250 bar
Weight	0,6 Kg
Manifold material	Aluminium
A / B ports	3/8" G



N°	Description	Q.ty
1	OR 2062 i. Ø 15,60 cross section 1,78 (P-T)	2
2	Ø 11,5 through hole with 1/4" G thread (P-T)	2
3	Ø 8,5 through hole for tie rod	3

Ordering code

H	3	1	0	5	A
---	---	---	---	---	---

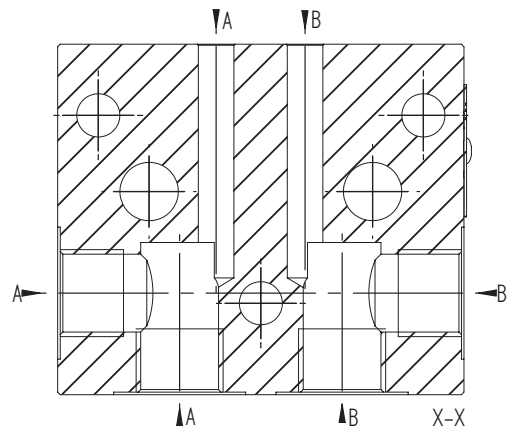
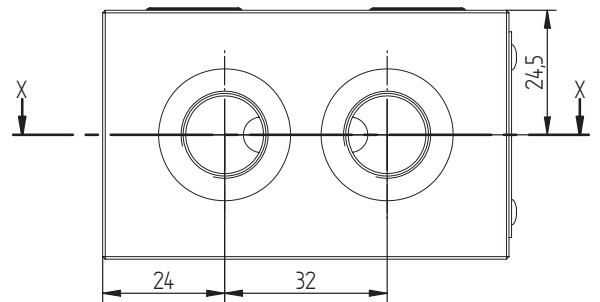
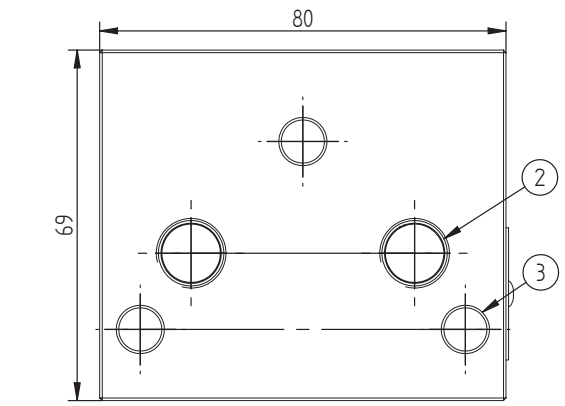
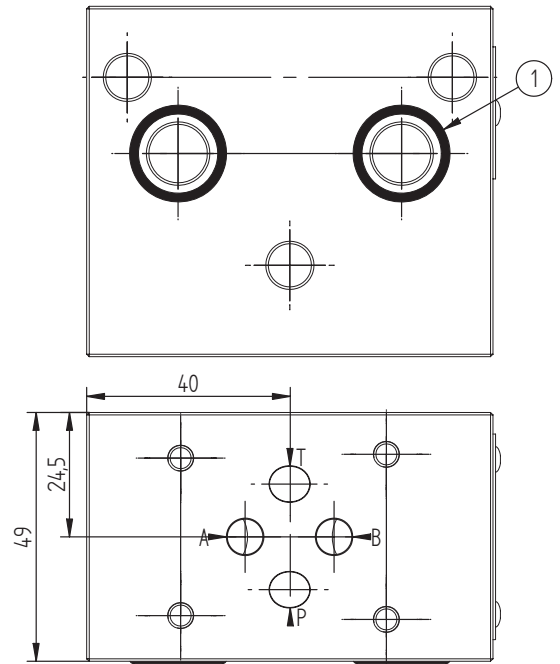
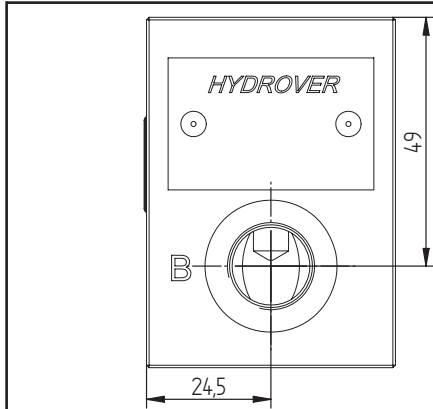
Hydrover product**Product series**

31 series - Modular Cetop 3 subplates for parallel circuits

Manifold material

Aluminium

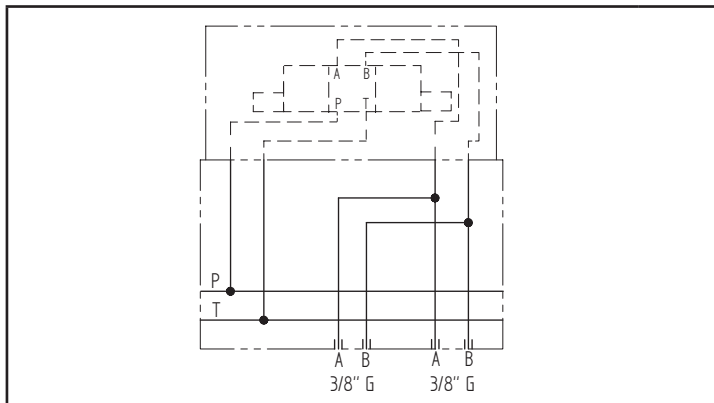
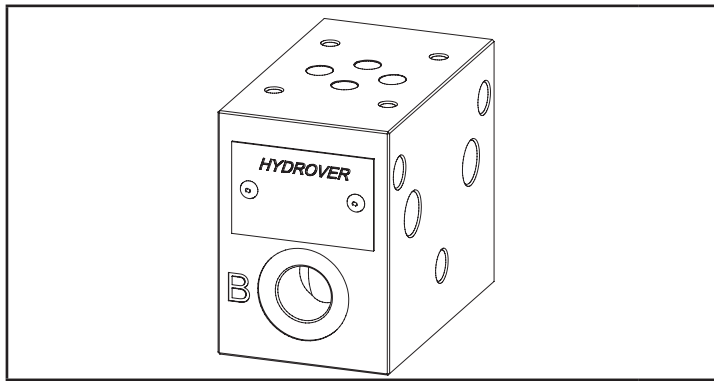
Product ID



Dimensions in mm

Technical data

Max. pressure	250 bar
Weight	0,7 Kg
Manifold material	Aluminium
A / B ports	3/8" G



N°	Description	Q.ty
1	OR 2062 i. Ø 15,60 cross section 1,78 (P-T)	2
2	Ø 11,5 through hole with 1/4" G thread (P-T)	2
3	Ø 8,5 through hole for tie rod	3

H3101

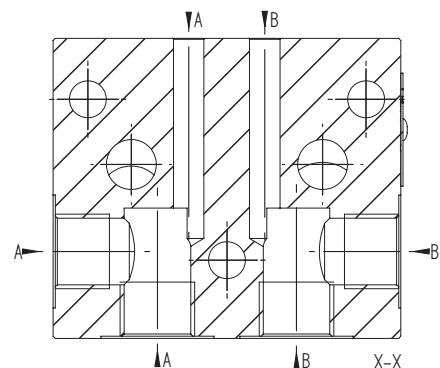
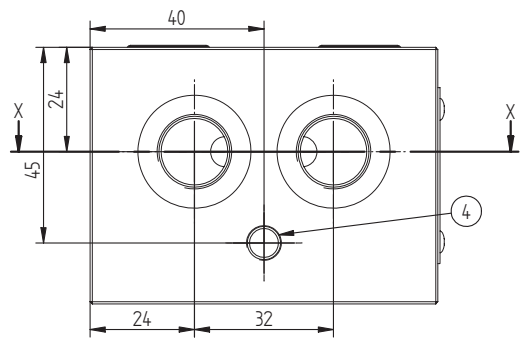
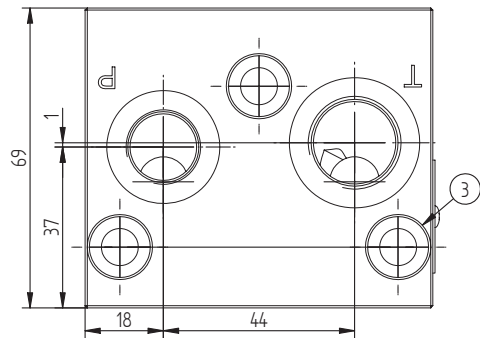
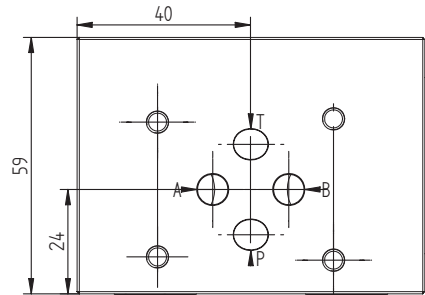
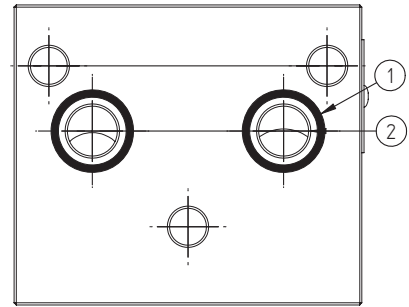
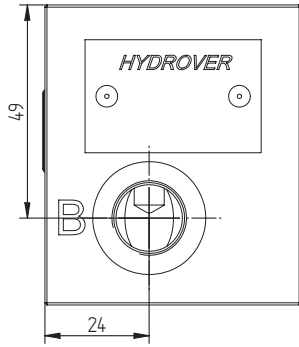
Ordering code

H	3	1	0	1	A
---	---	---	---	---	---

Hydrover product**Product series**

31 series - Modular Cetop 3 subplates for parallel circuits

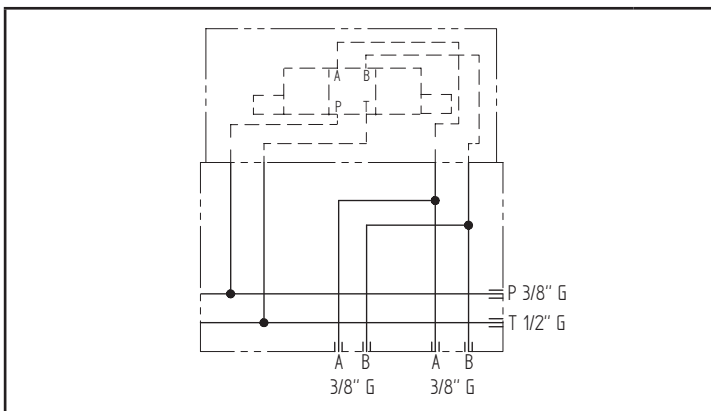
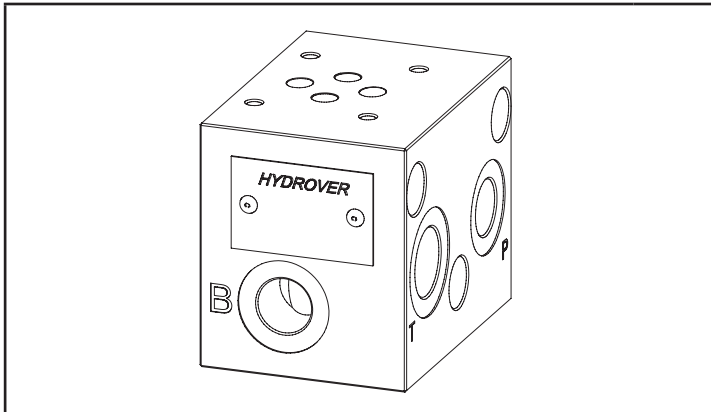
Manifold material
Aluminium**Product ID**



Dimensions in mm

Technical data

Max. pressure	250 bar
Weight	0,8 Kg
Manifold material	Aluminium
A / B / P ports	3/8" G
T port	1/2" G



N°	Description	Q.ty
1	OR 2062 i. Ø 15,60 cross section 1,78 (P-T)	2
2	Ø 11,5 through hole (P-T)	2
3	Ø 8,5 through hole with counterbore for tie rod	3
4	M8x15 thread for mounting	1

Ordering code

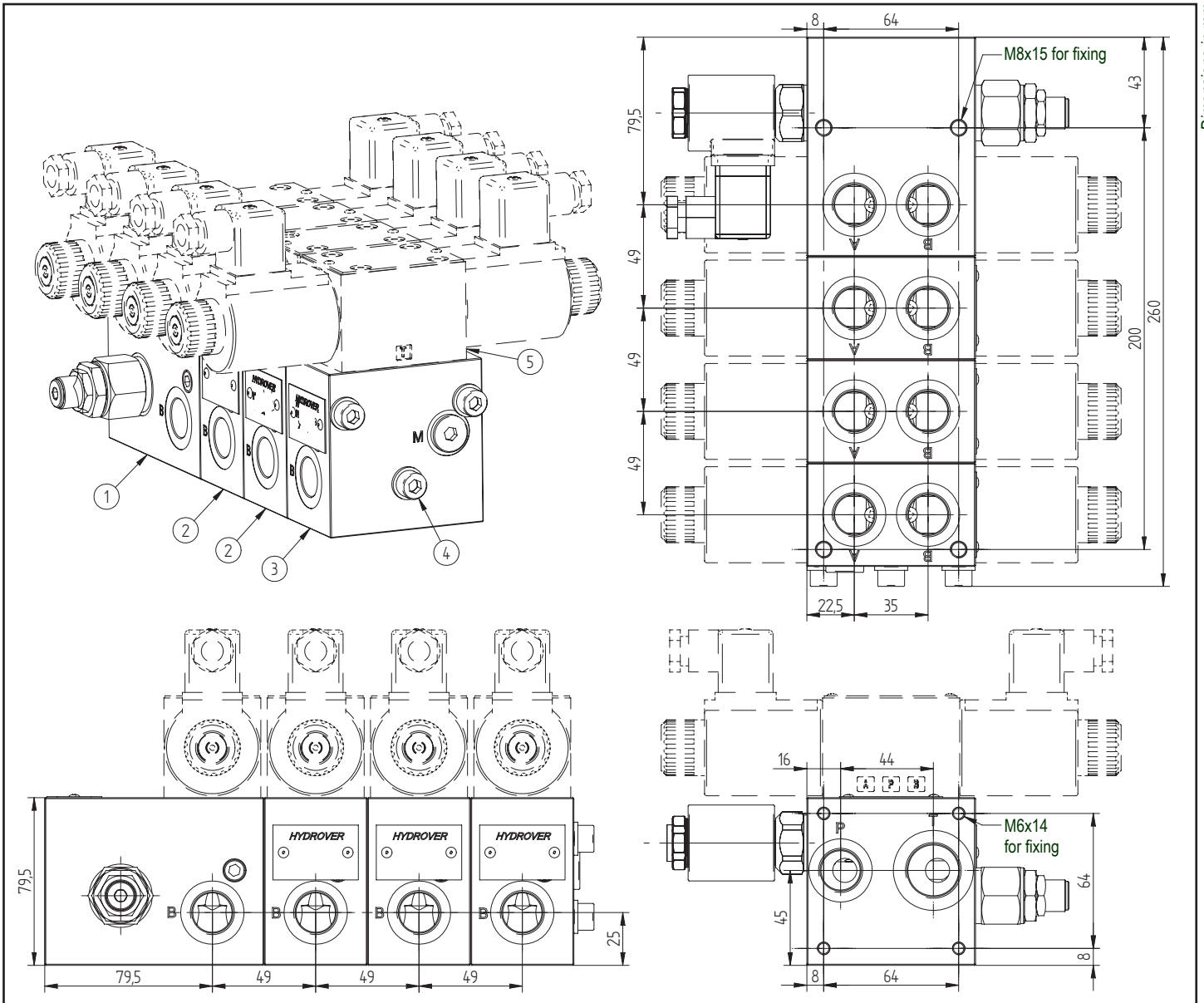
H	3	1	0	2	A
---	---	---	---	---	---

Hydrover product**Product series**

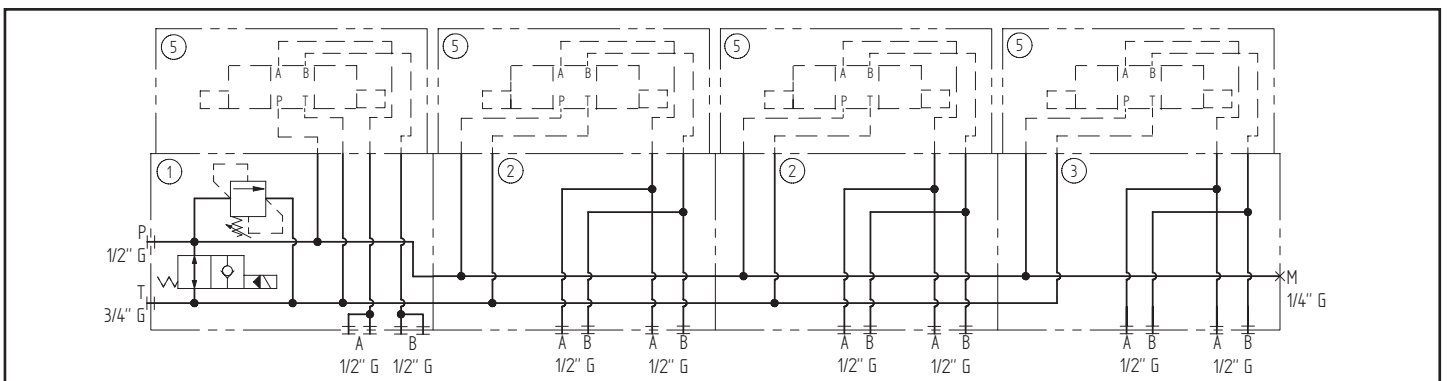
31 series - Modular Cetop 3 subplates for parallel circuits

Manifold material
Aluminium**Product ID**

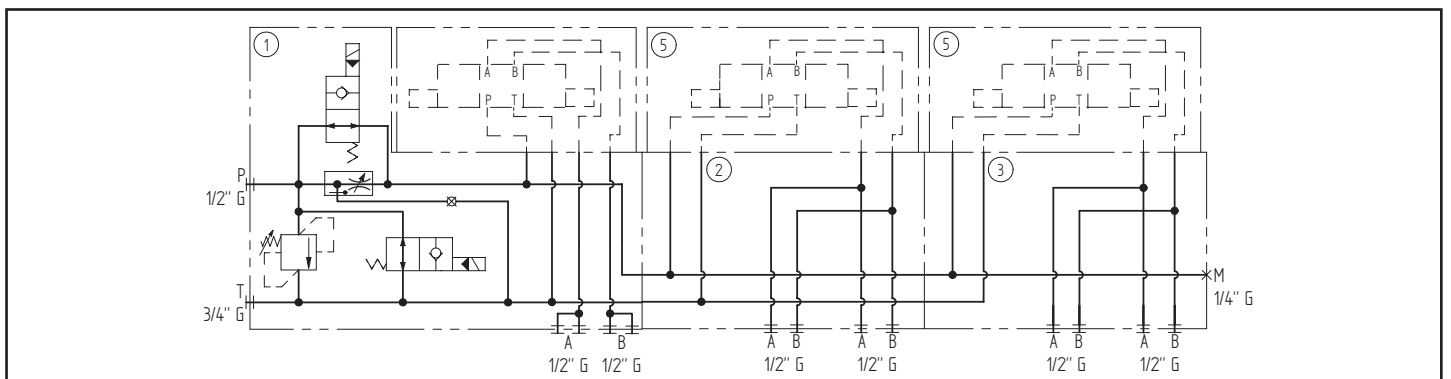
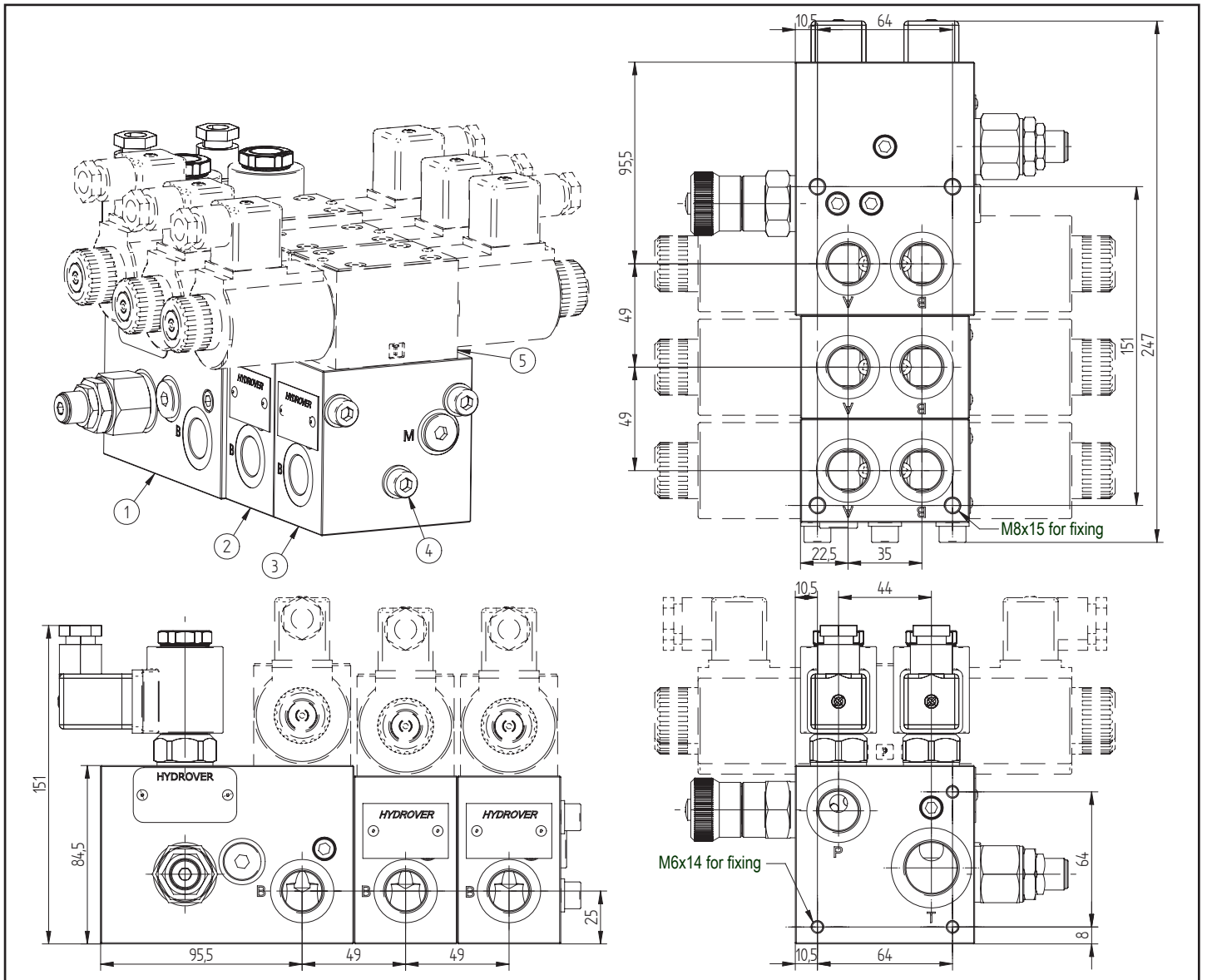
N°	Ordering code	Description	Q.ty
1	H3107A-S2-E0-OC1	High flow rate inlet subplate with 1 Cetop 3 station, extensible / 110-220 bar relief valve / bypass valve / Side and back A-B ports / Crossing P-T ports / 24V DC DIN	1
2	H3108A	High flow rate intermediate subplate with 1 Cetop 3 station / Side and back A-B ports	2
3	H3109A	High flow rate closing subplate with 1 Cetop 3 station / Side and back A-B ports	1
4	HKVM8X160-3	Assembling kit HKVM8X160-3	1
5	Cetop 3 valve 4/3	Cetop 3 4/3 valve	4



Dimensions in mm

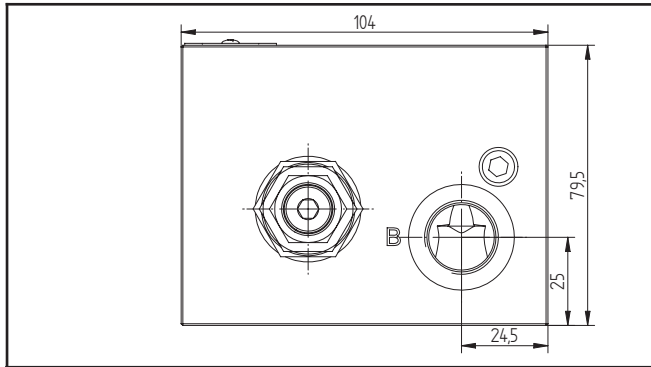


N°	Ordering code	Description	Q.ty
1	H3106A3NR-S2-E0-OC1	High flow rate inlet subplate with 1 Cetop 3 station, extensible / 110-220 bar relief valve / bypass valve / 2 or 3 way flow regulation normally slow fast slow speed / Side and back A-B ports / Crossing P-T ports / 24V DC DIN	1
2	H3108A	High flow rate intermediate subplate with 1 Cetop 3 station / Side and back A-B ports.	1
3	H3109A	High flow rate closing subplate with 1 Cetop 3 station / Side and back A-B ports	1
4	HKVM8X160-3	Assembling kit HKVM8X160-3	1
5	Cetop 3 valve 4/3	Cetop 3 4/3 valve	4

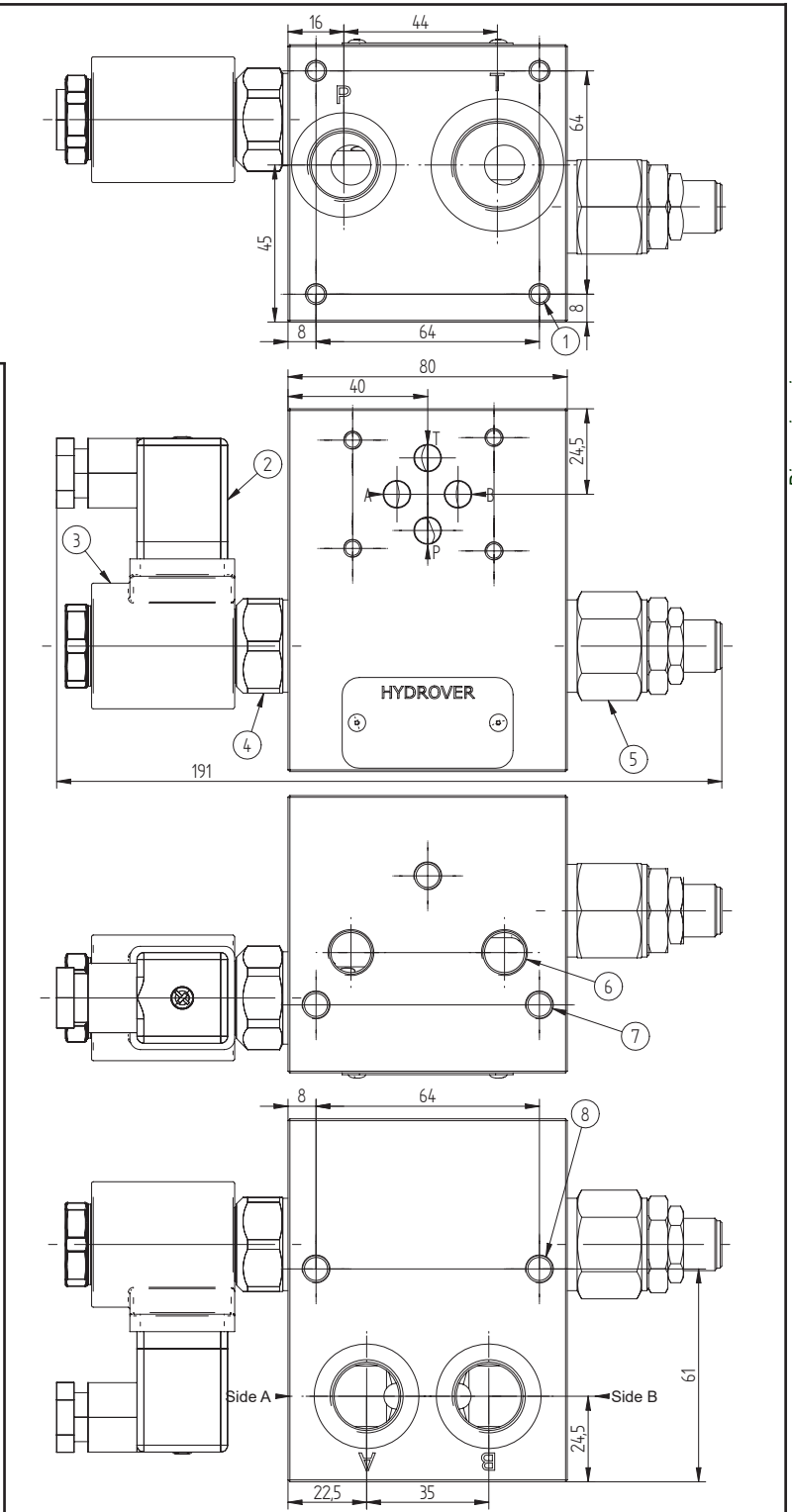
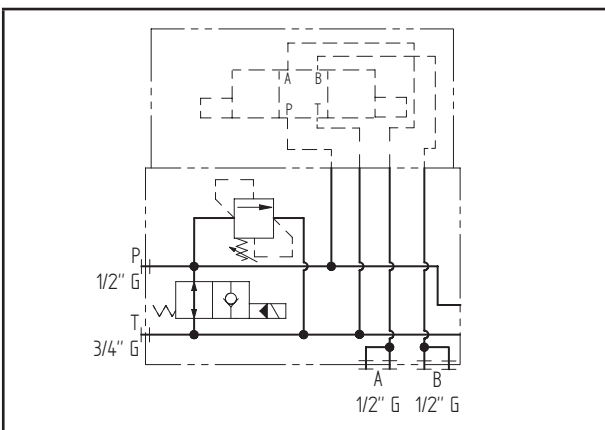
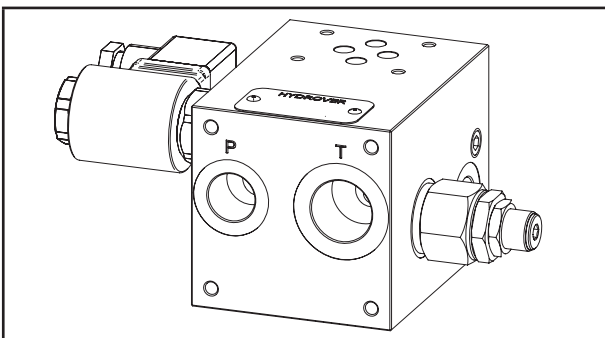


High flow rate inlet subplate with 1 Cetop 3 station / extensible relief and bypass valve / side and back A-B ports / crossing P-T ports

H3107



Technical data	
Max. pressure	250 bar
Max. flow	70 lpm *
Weight	2,1 Kg
Manifold material	Aluminium
A / B / P ports	1/2" G
T port	3/4" G



Dimensions in mm

N°	Description	Q.ty
1	M6x14 thread for mounting	4
2	Connector DIN 43650 ISO 4400	1
3	Bosch Rexroth coil D36 - CLASS H DIN 43650 ISO 4400 *	1
4	Bosch Rexroth bypass solenoid valve VEI-16-10A-NA OD.15.06.36-Y-000000 *	1
5	Bosch Rexroth relief valve VMD1.070 *	1
6	Ø 11,5 through hole with 1/4" G thread (P-T)	2
7	M8x15 for tie rod	3
8	M8x15 thread for mounting	2

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue

Ordering code

H 3 1 0 7 A - - - - -

Hydrover product

Product series

31 series - Modular Cetop 3 subplates for parallel circuits

Product ID

Manifold material

Aluminium

Relief valve adjustment type *

Screw = S

Relief valve adjustment pressure range *

10-60 bar = 0
 40-110 bar = 1
 110-220 bar = 2
 220-260 bar = 3

Bypass solenoid valve coil connection *

1 = DIN 43650 ISO 4400

Solenoid valve coil voltage *

OB = 12V DC
 OC = 24V DC
 OD = 48V DC
 OU = 110V RAC
 AH = 230V RAC

Bypass solenoid valve manual override *

E0 = Without
 EP = Push
 EG = Push and twist

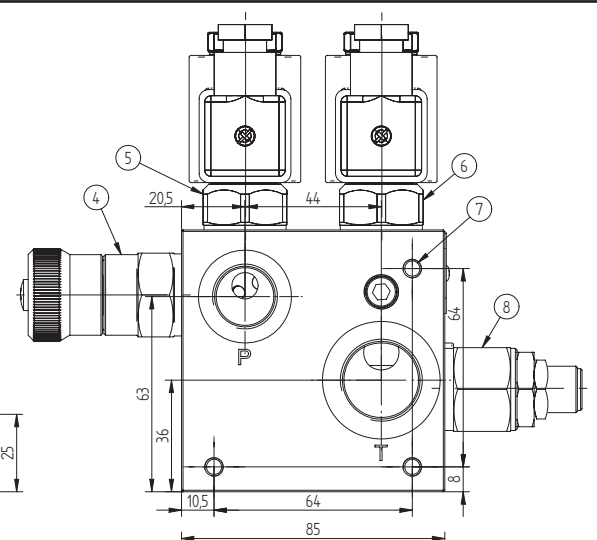
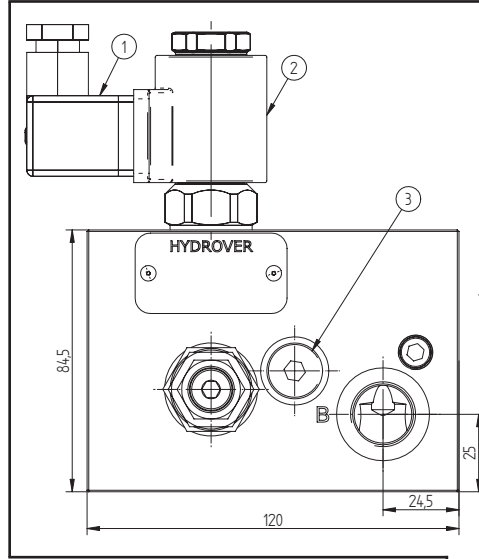
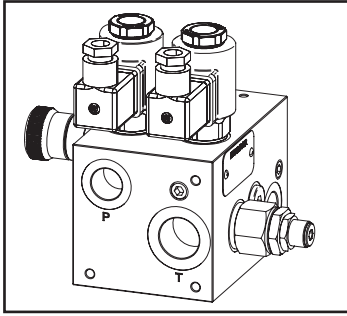
* Omit if not required. For example, to order the product without the bypass solenoid cartridge valve, omit the coil connection, coil voltage and manual override options: H3107A-S2.
 The manifold will still be provided with the corresponding cavity.
 To inhibit a function, replace the related valve options with TL: eg H3107A-S2-TL.
 In the cavity it will be mounted a long plug.

Valve	Cavity	Long plug code
Solenoid valve VEI-16-10A-NA OD.15.06.36-Y-000000	CA-10A-2N	0489A200850000
Pressure relief valve VMD1.070	CA-10A-2N	0489A200850000

Note: to add stations use the subplates **H3108** and **H3109**.

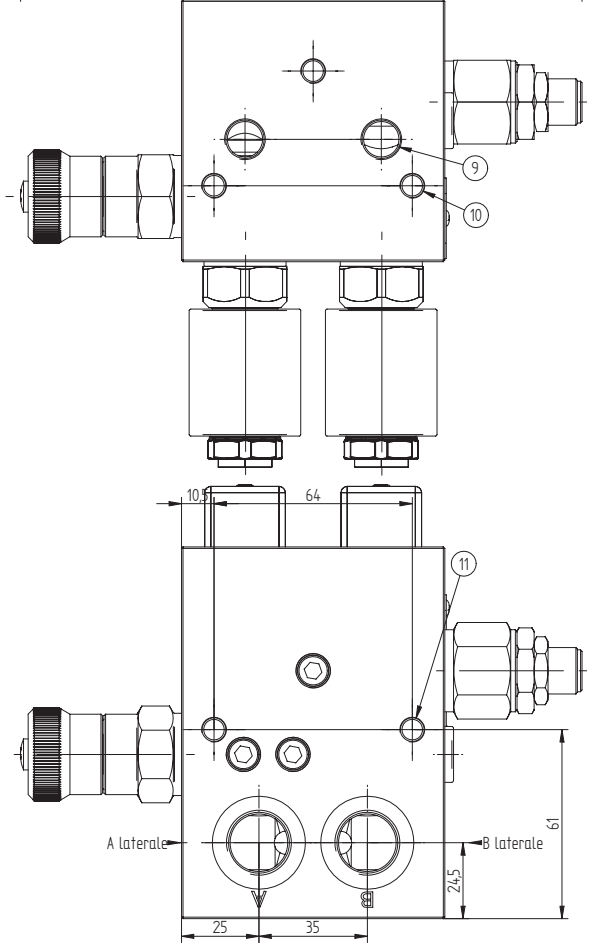
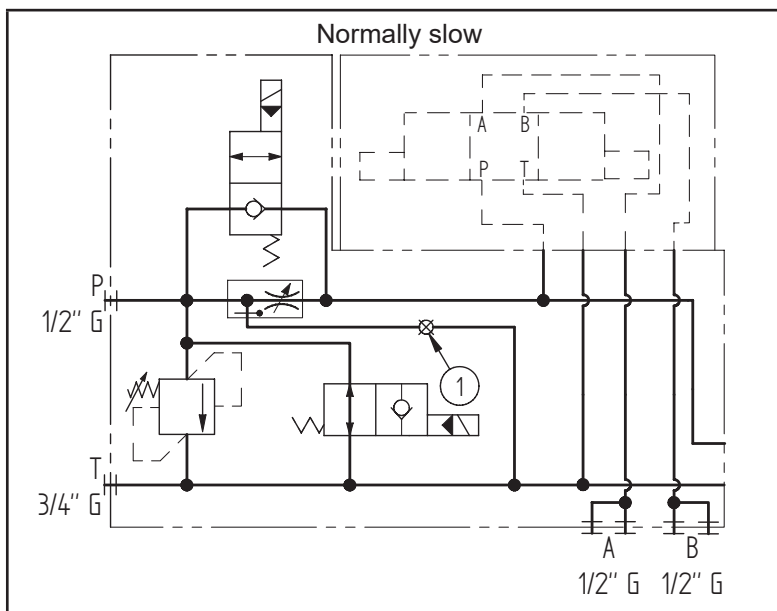
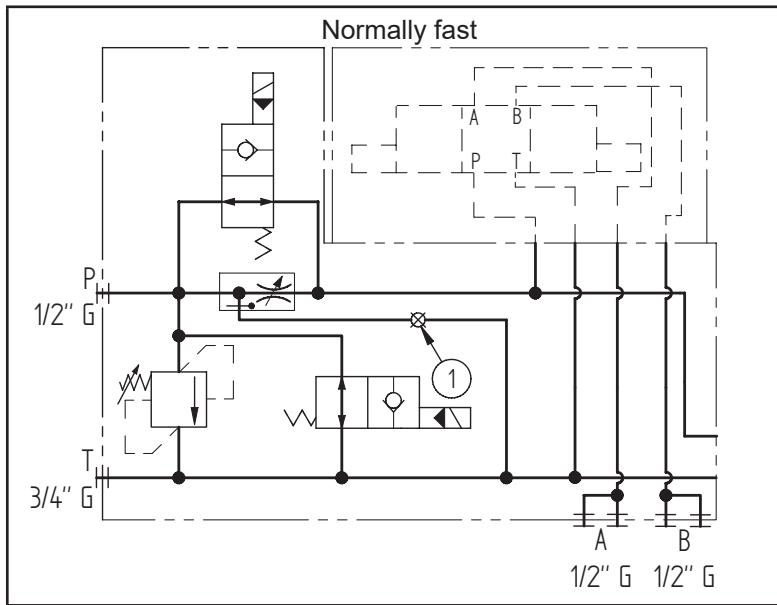
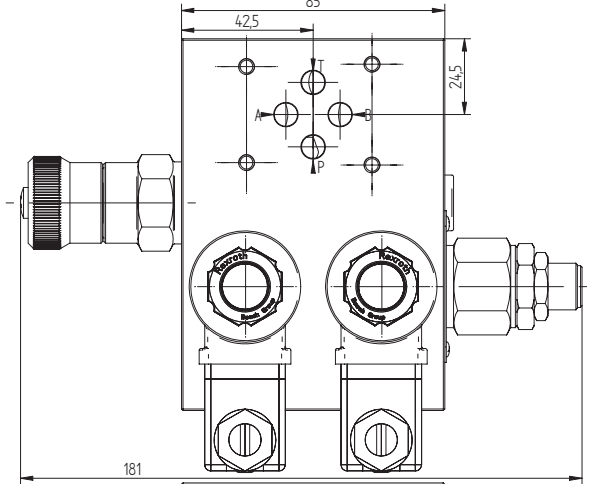
High flow rate inlet subplate with 1 Cetop 3 station / extensible / relief and bypass valve
2 or 3 way flow regulation / fast slow speed / side and back A-B ports / crossing P-T ports

H3106



Dimensions in mm

Technical data	
Max. pressure	250 bar
Inlet max. flow	60 lt/1 *
Reg. max. flow	30 lt/1 *
Manifold material	Aluminium
T port	3/4" G
A / B / P ports	1/2" G
Weight	3,1 Kg



Ordering code

H	3	1	0	6	A	_	-	_	_	-	_	_	-	_	_	-	_	_
---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

Hydrover product
Product series

31 series - Modular Cetop 3 subplates for parallel circuits

Product ID
Manifold material

Aluminium

2 or 3 way compensated flow regulation

 2 way = 2
 3 way = 3

Relief valve adjustment type *

Screw = S

Relief valve adjustment pressure range *

 0 = 10-60 bar
 1 = 40-110 bar
 2 = 110-220 bar
 3 = 220-260 bar

Solenoid valves coil connection *

 1 = DIN 43650
 ISO 4400

Solenoid valve coil voltage *

 OB = 12V DC
 OC = 24V DC
 OD = 48V DC
 OU = 110V RAC
 AH = 230V RAC

Bypass solenoid valve manual override *

 E0 = Without
 EP = Push
 EG = Push and twist

Slow or fast in normal position *

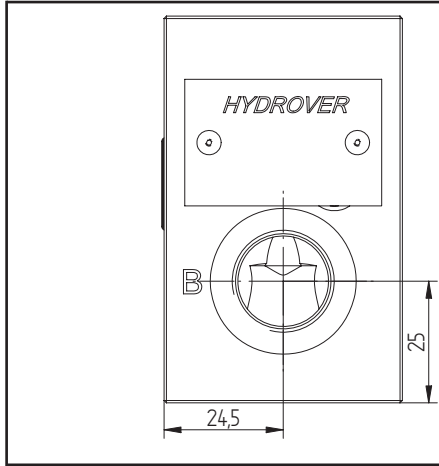
 NL = Normally slow
 NR = Normally fast

N°	Description	Q.ty
1	Connector DIN 43650 ISO 4400	2
2	Bosch Rexroth coil D36 - CLASS H DIN 43650 ISO 4400 **	2
3	1/4" G cylindrical plug - For the cavity where there is the 1/8" DIN 906 conical plug to switch from 2 to 3 way	1
4	Compensated flow regulator 04.04.02.40.85.40 - VRFD-10A-M-40 **	1
5	Bosch Rexroth solenoid valve for fast slow function OD.15.05.36.A.000000 * (normally slow) or OD.15.06.36.A.000000 * (normally fast)	1
6	Bosch Rexroth bypass solenoid valve OD.15.06.36-Y-000000 **	1
7	M6x14 thread for mounting	3
8	Bosch Rexroth relief valve VMD1.070 **	1
9	Ø 11,5 through hole with 1/4" G thread (P-T)	2
10	M8x15 for tie rod	3
11	M8x15 thread for mounting	2

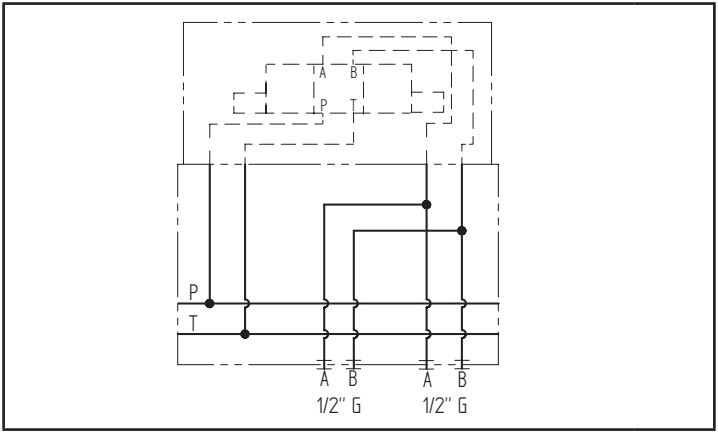
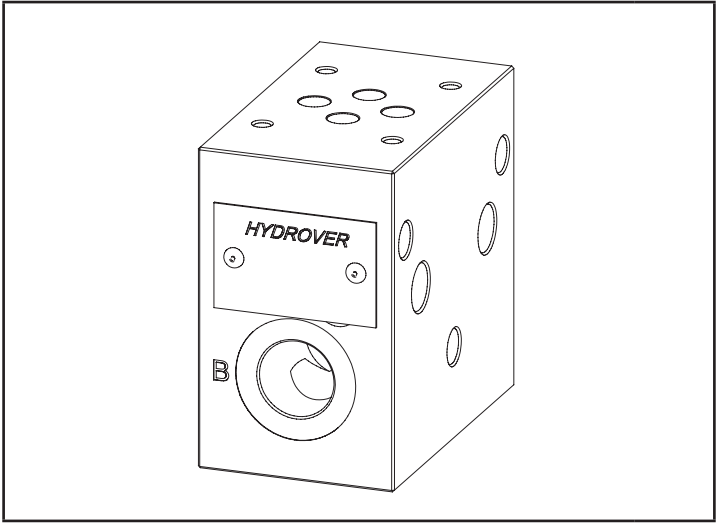
** for complete technical information, click on the blue link or go to the components section at the end of the catalogue

* Omit if not required. For example, to order the product without the fast slow solenoid valve, omit the variable "Slow or fast in normal position": H3106A3-S2-E0-OC1. The manifold will still be provided with the corresponding cavity. Valves for fast slow, bypass and relief use the CA-10A-2N cavity (long plug code **0489A2008500000**). To inhibit a function, replace the related valve options with TL: eg H3106A3-S2-TL-TL.

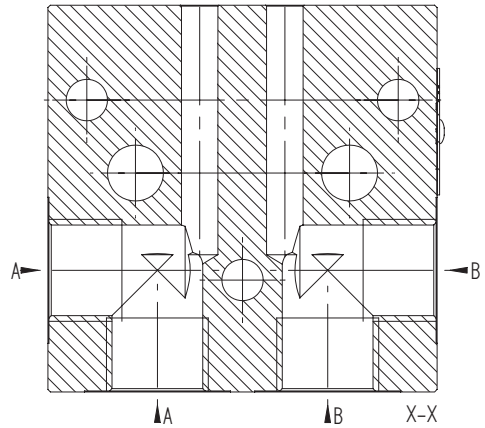
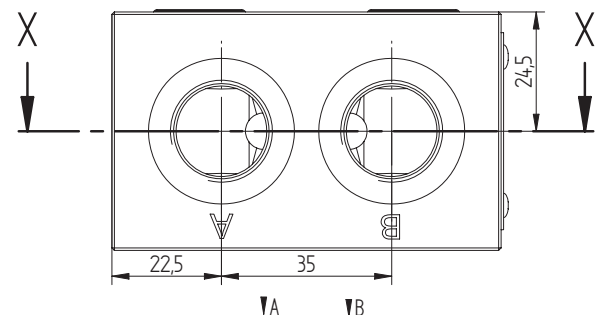
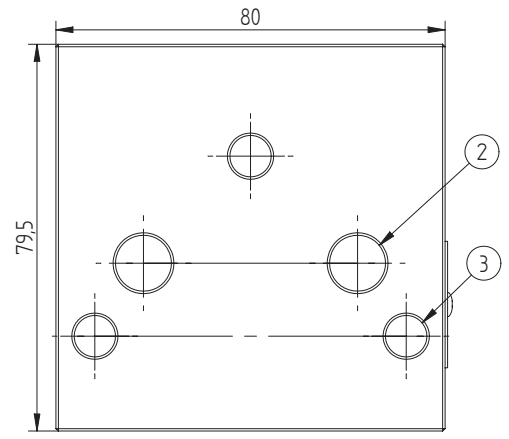
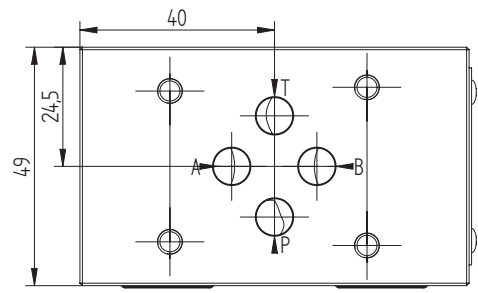
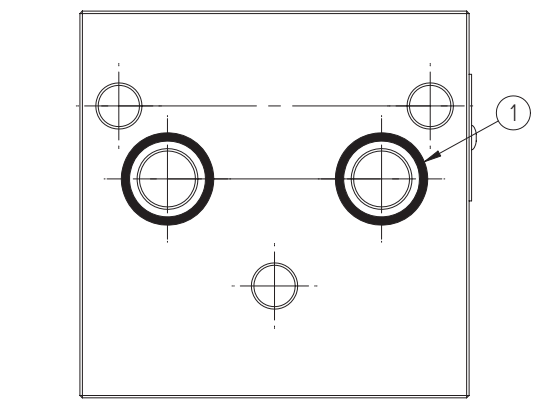
Note: to add stations use the subplates **H3108** and **H3109**.



Technical data	
Max. pressure	250 bar
Weight	0,8 Kg
Manifold material	Aluminium
A / B ports	1/2" G



N°	Description	Q.ty
1	OR 2062 i. Ø 15,60 cross section 1,78 (P-T)	2
2	Ø 11,5 through hole (P-T)	2
3	Ø 8,5 through hole for tie rod	3



Dimensions in mm

Ordering code

H	3	1	0	8	A
---	---	---	---	---	---

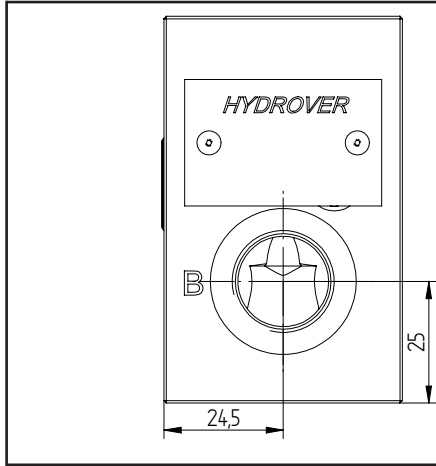
Hydrover product

Product series

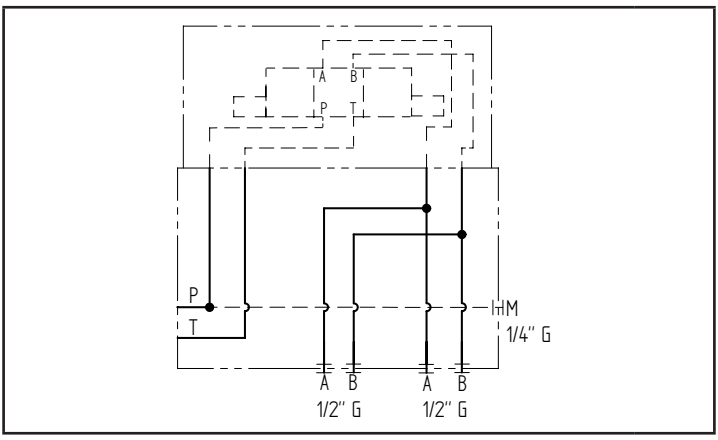
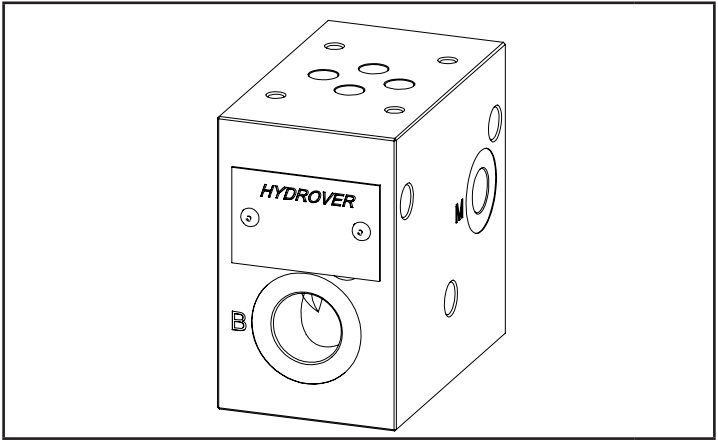
31 series - Modular Cetop 3 subplates for parallel circuits

Manifold material
Aluminium

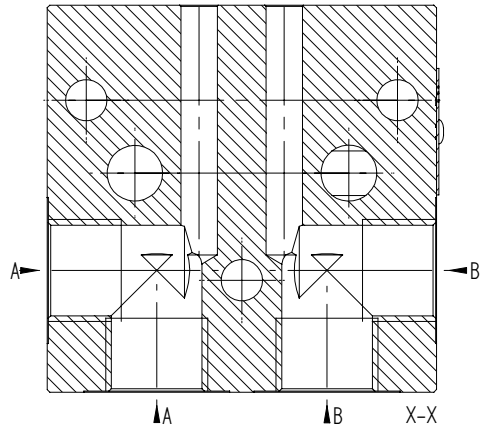
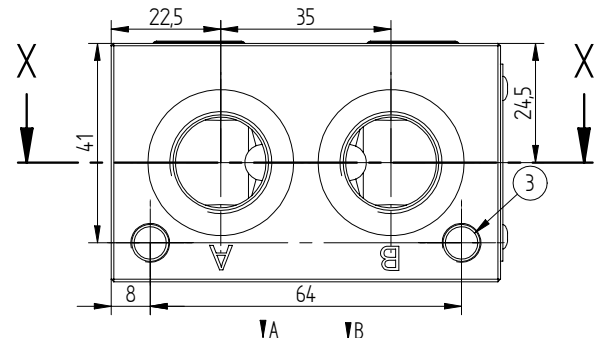
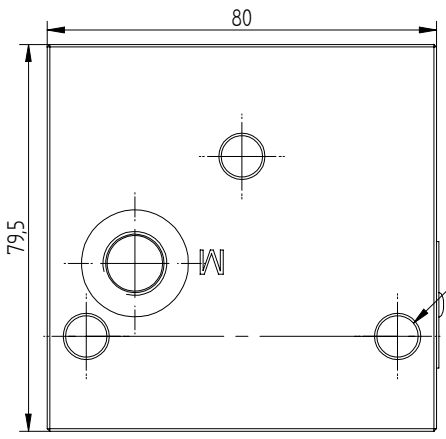
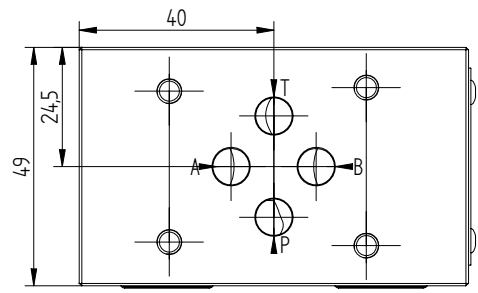
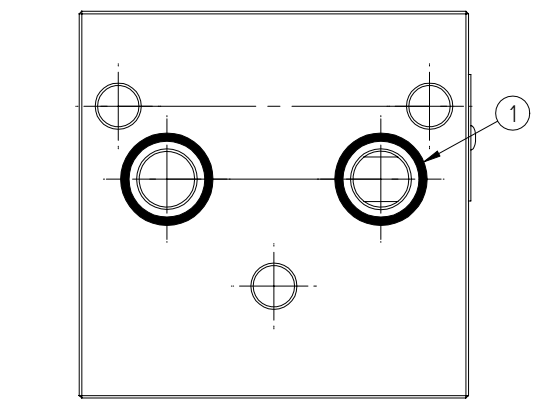
Product ID



Technical data	
Max. pressure	250 bar
Weight	0,8 Kg
Manifold material	Aluminium
M port	1/4" G
A / B ports	1/2" G



N°	Description	Q.ty
1	OR 2062 i. Ø 15,60 cross section 1,78 (P-T)	2
2	Ø 8,5 through hole for tie rod	3
3	M8x15 thread for mounting	2



Dimensions in mm

H3109

Ordering code

H	3	1	0	9	A
---	---	---	---	---	---

Hydrover product

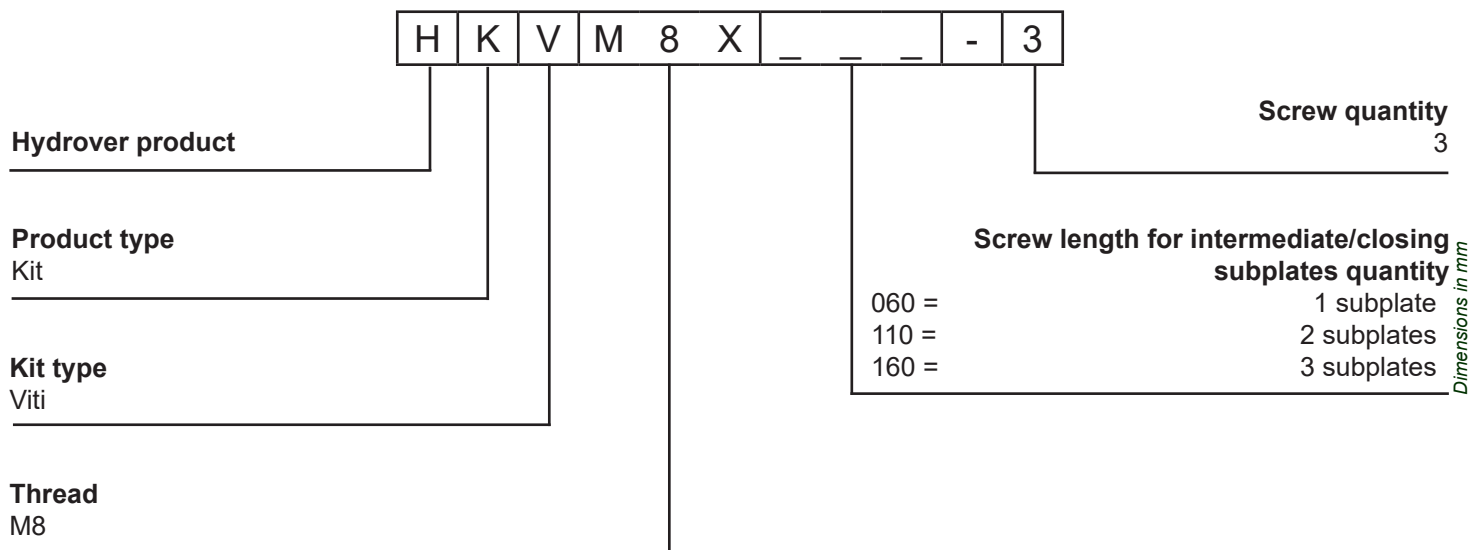
Product series

31 series - Modular Cetop 3 subplates for parallel circuits

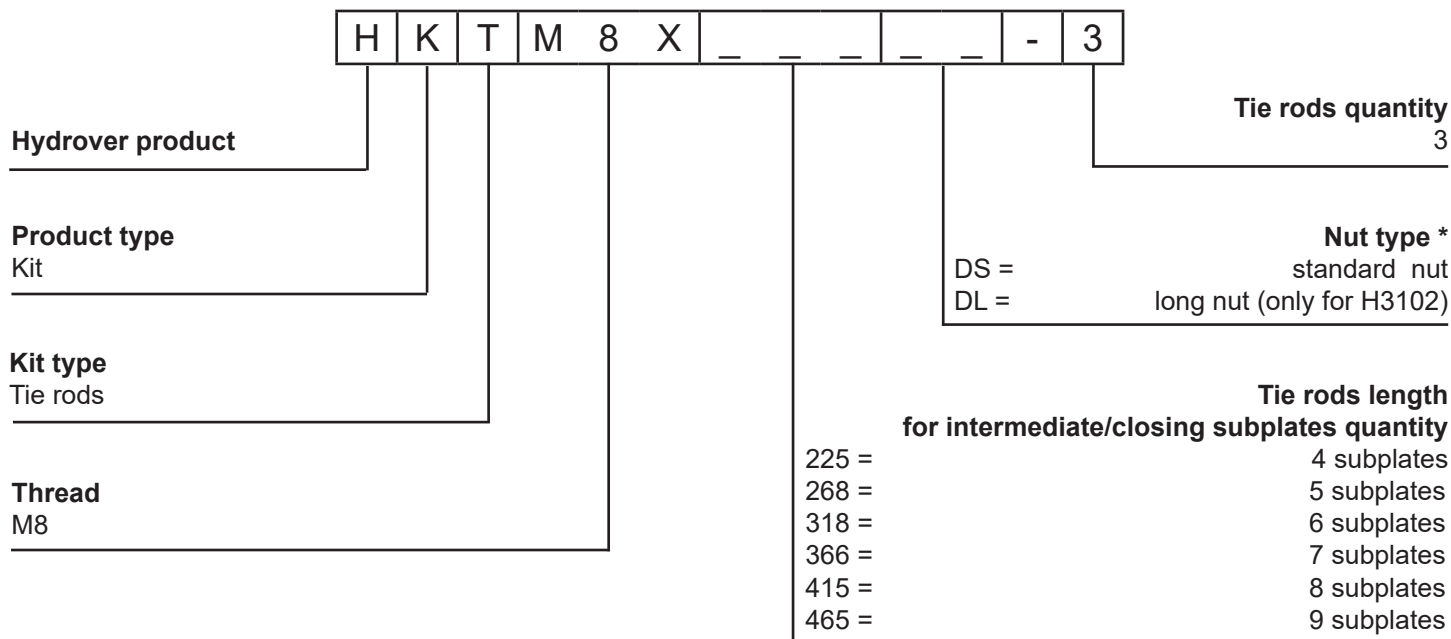
Manifold material
Aluminium

Product ID

Ordering code for assemblies with 1 to 3 intermediate/closing subplates

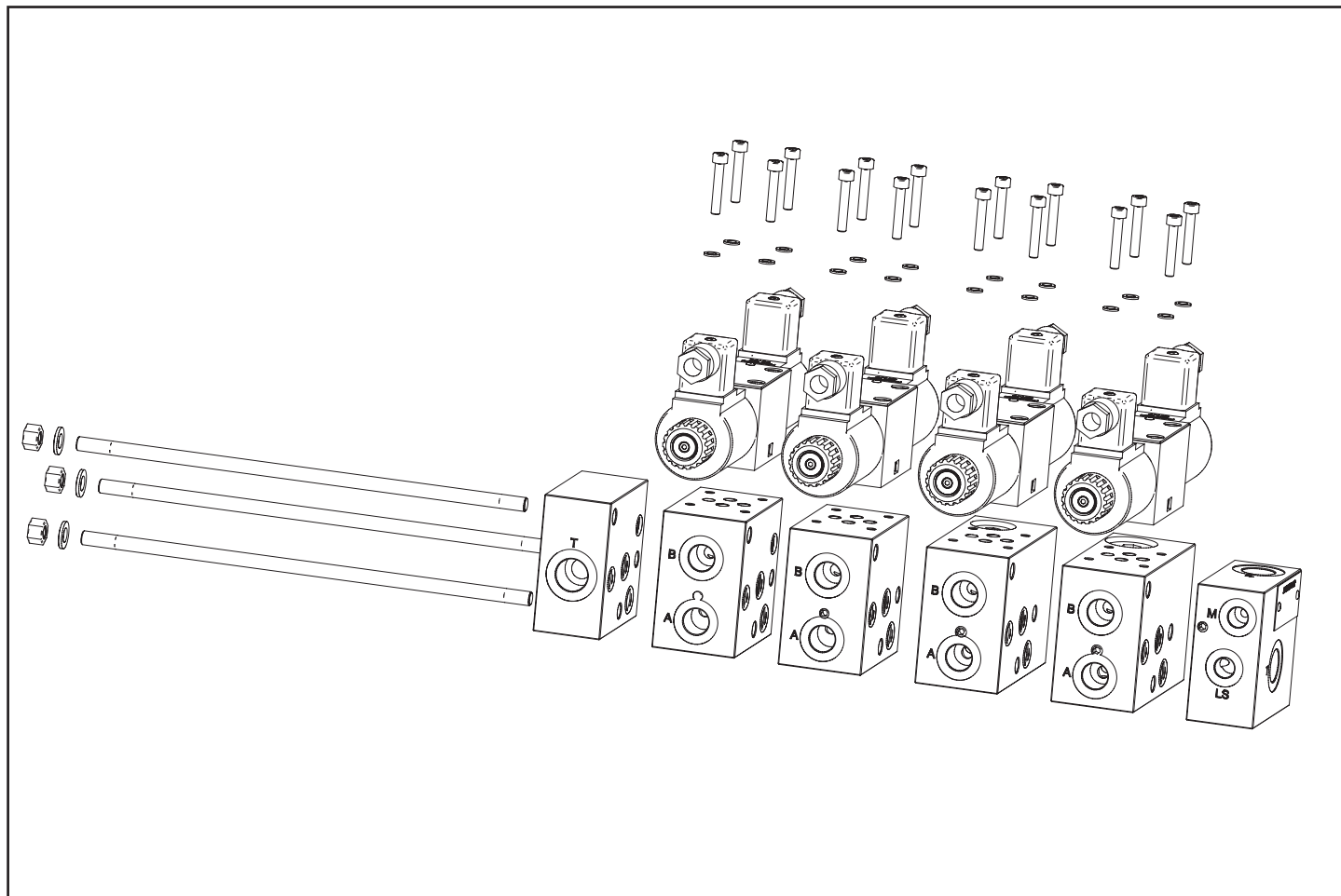


Ordering code for assemblies with 4 to 9 intermediate/closing subplates



32 SERIES

Load sensing modular Cetop 3 subplates for parallel circuits

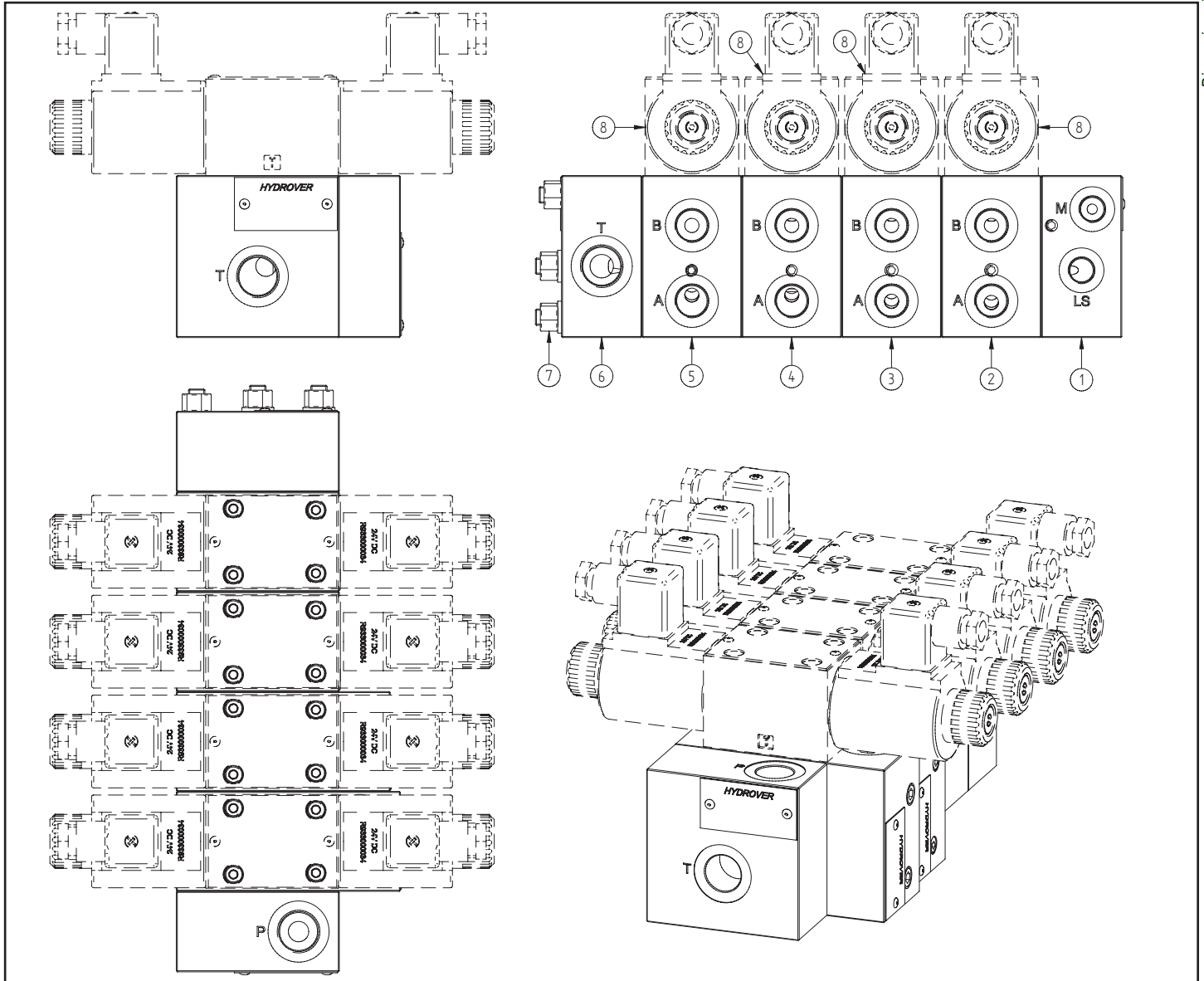


32 SERIES products give you the possibility to build Cetop 3 load sensing systems for variable displacement pumps or gear pumps.

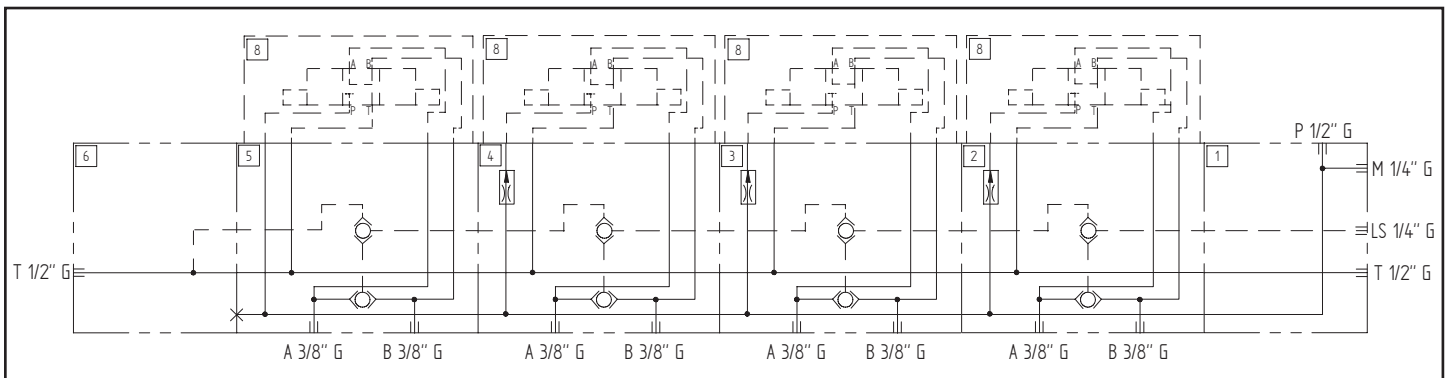
Intermediate subplates could have a 2 ways compensated flow regulation.

The optional "Carry Over" function let you sending the extra oil to another system. 32 SERIES need Cetop 3 valves with A/B in T in neutral position. So if there is a load to sustain, you will have to add check valves or counterbalance valves. Maximum inlet flow is 90 lpm, maximum operating pressure 250 bar (Aluminium manifolds). We can build on request steel manifolds for a maximum operating pressure of 350 bar.

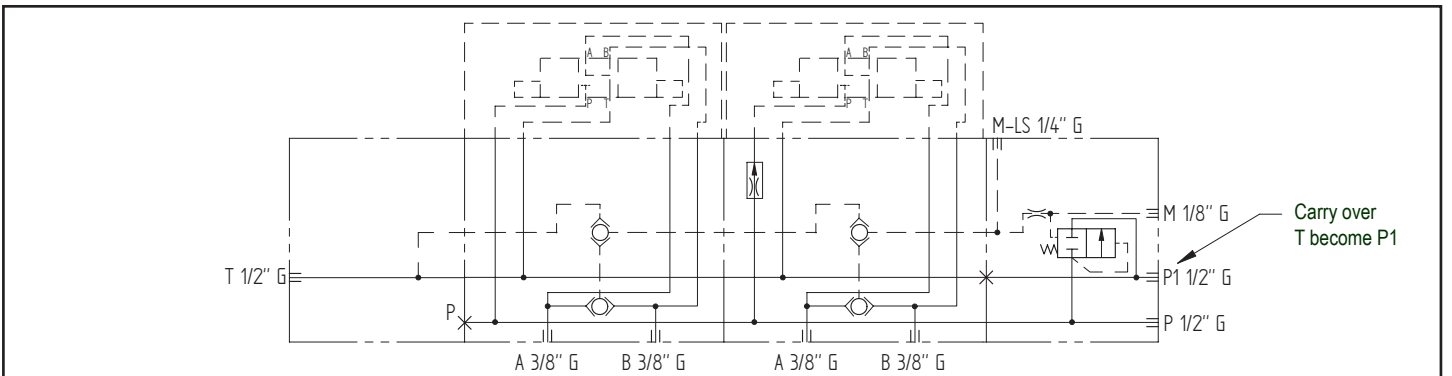
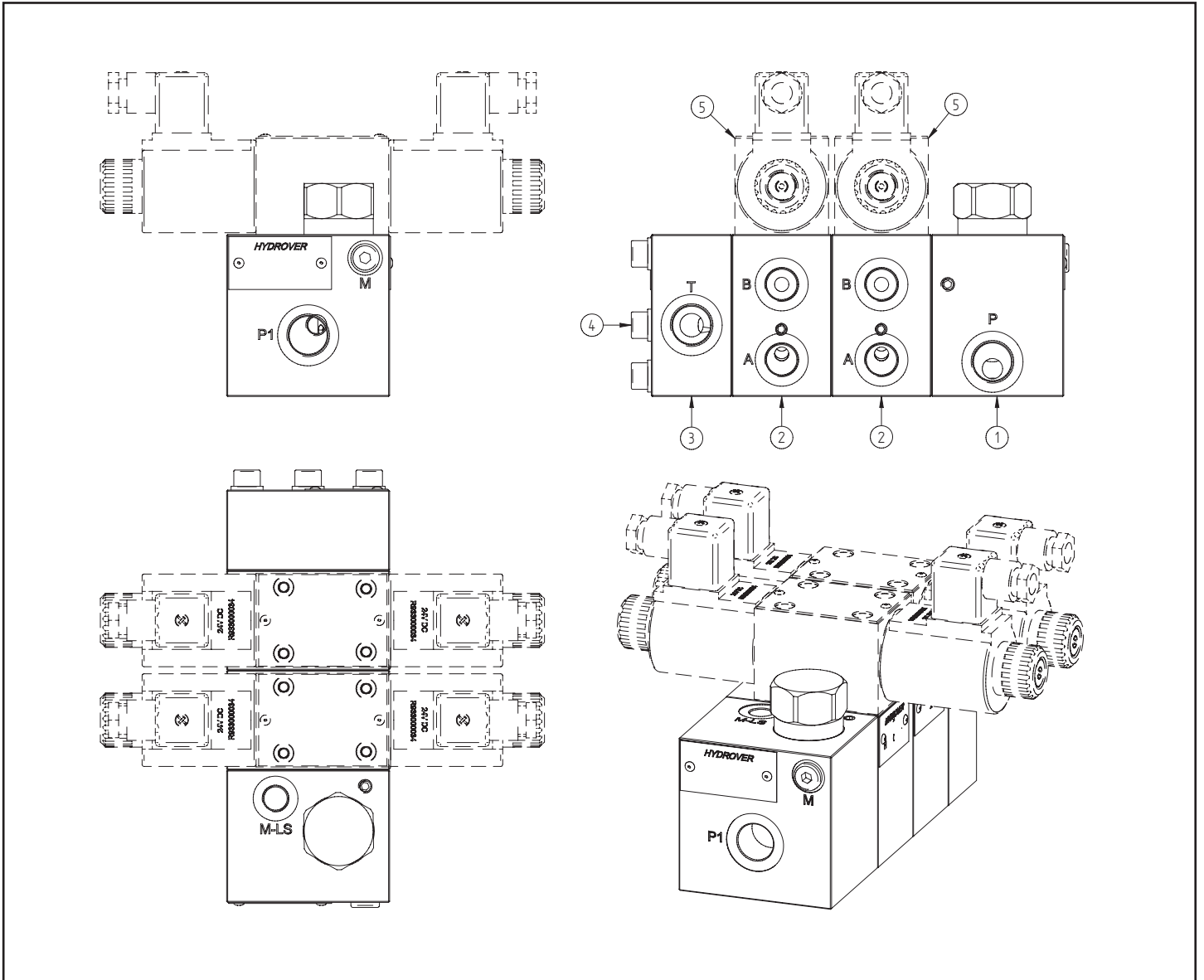
N°	Ordering code	Description	Q.ty
1	H3203A	Inlet plate for variable displacement pump	1
2	H3207A-20	Intermediate subplate with 2 way compensated flow regulator 20 lpm fixed flow rate	1
3	H3205A-14	Intermediate subplate with 2 way compensated flow regulator 14 lpm fixed flow rate	1
4	H3201A-05	Intermediate subplate with 2 way compensated flow regulator 5 lpm fixed flow rate	1
5	H3206A	Intermediate subplate with 1 Cetop 3 station / Side A-B ports	1
6	H3202A	Closing plate with T port	1
7	HKTM8X268-3	Assembling kit HKTM8X268-3	1
8	Cetop 3 valve 4/3	Cetop 3 valve 4/3	4

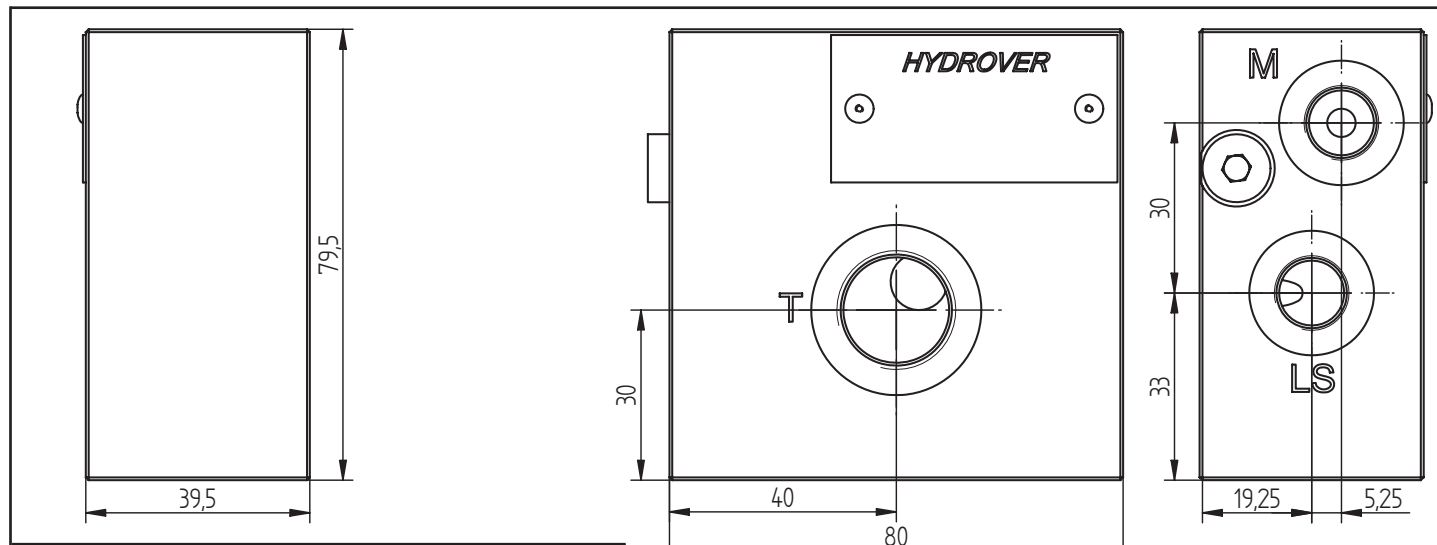


Dimensions in mm



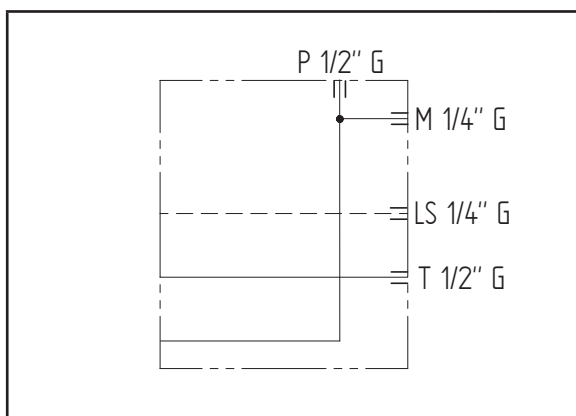
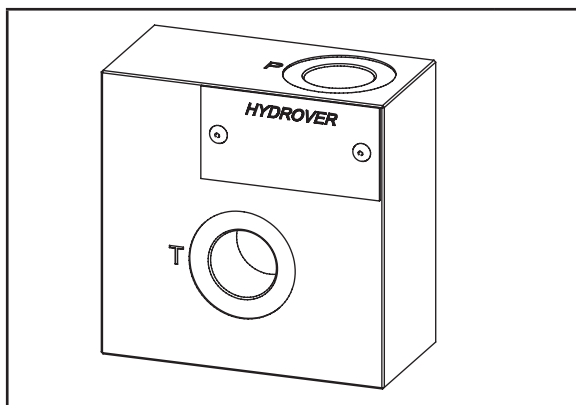
N°	Ordering code	Description	Q.ty
1	H3204A6-CO	Inlet plate 3 way compensated for fixed displacement pump with carry over	1
2	H3206A	Intermediate subplate with 1 Cetop 3 station / Side A-B ports	2
3	H3202A	Closing plate with T port	1
4	HKVM8X150-3	Assembling kit HKVM8X150-3	1
5	Cetop 3 valve 4/3	Cetop 3 valve 4/3	2



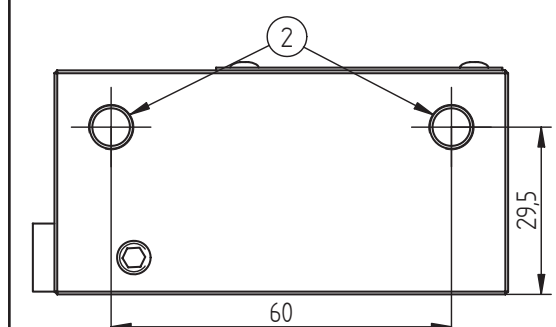
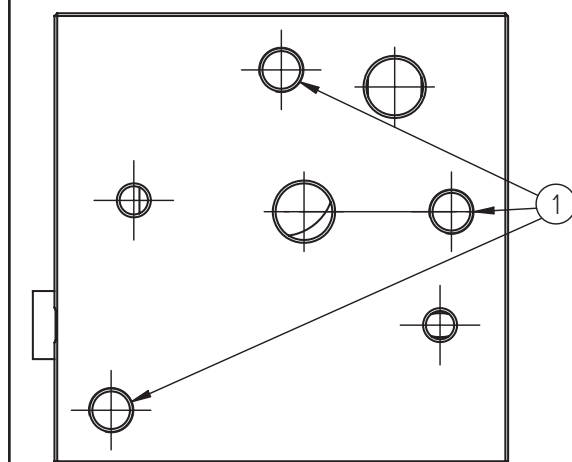
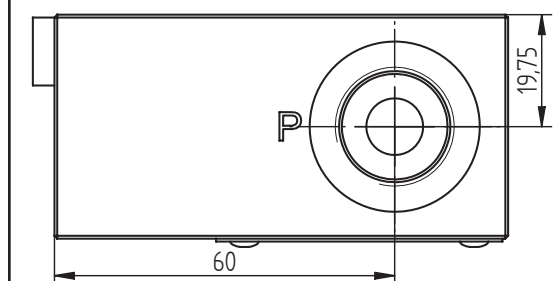


Dimensions in mm

Technical data	
Max. pressure	250 bar
Weight	0,7 Kg
Manifold material	Aluminium
LS / M ports	1/4" G
P / T ports	1/2" G



N°	Description	Q.ty
1	M8x13 for tie rod	3
2	M8x15 thread for mounting	2



Ordering code

H	3	2	0	3	A
---	---	---	---	---	---

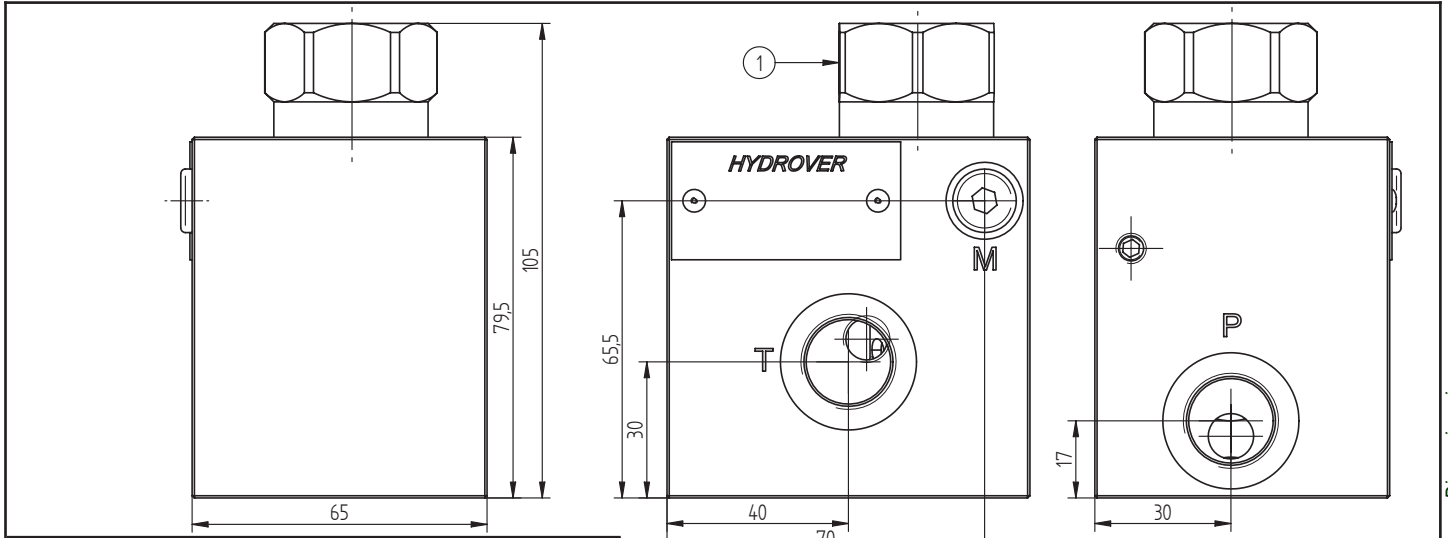
Hydrover product**Product series**

32 series - Load sensing modular Cetop 3 subplates for parallel circuits

Manifold material
Aluminium**Product ID**

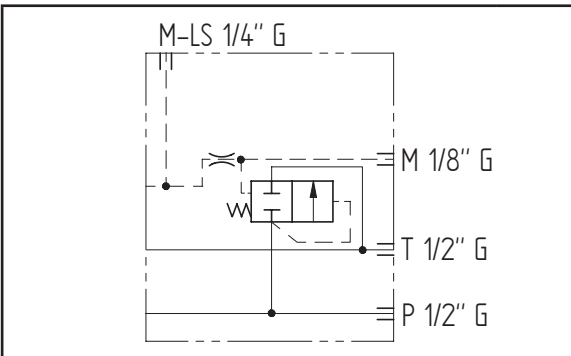
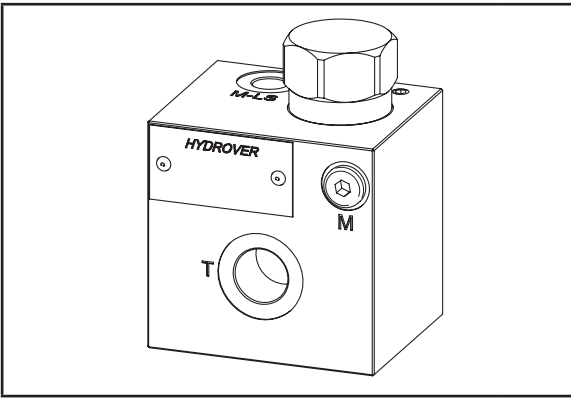
Inlet plate 3 way compensated for fixed displacement pump

H3204

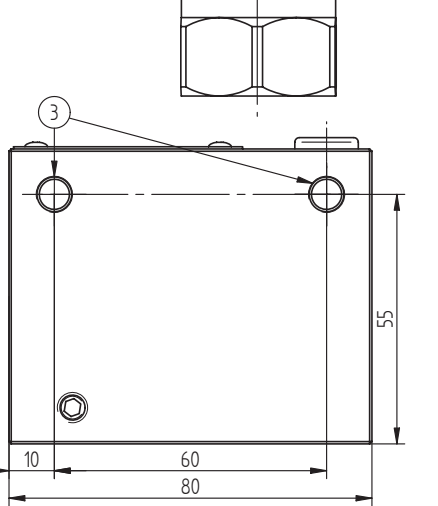
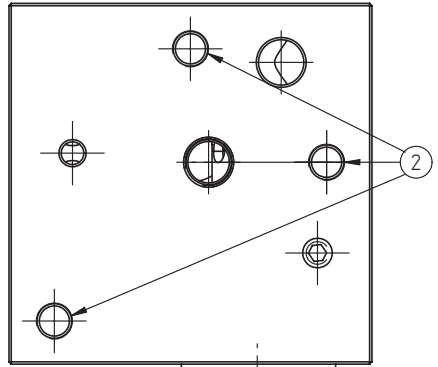
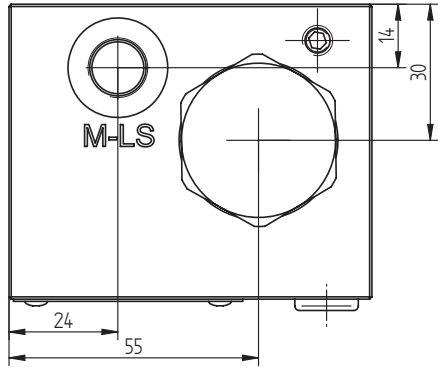


Dimensions in mm

Technical data	
Max. pressure	250 bar
Max. flow	90 lpm
Weight	1,5 Kg
Manifold material	Aluminium
M port	1/8" G
M-LS port	1/4" G
P / T ports	1/2" G



N°	Description	Q.ty
1	Pressure compensator	1
2	M8x13 for tie rod	3
3	M8x15 thread for mounting	2



Ordering code

H	3	2	0	4	A	-	-	-
---	---	---	---	---	---	---	---	---

Hydrover product

Product series

32 series - Load sensing modular Cetop 3 subplates for parallel circuits

Product ID

Carry over*

Standard
T as carry over

Compensator spring

5.5 bar (standard)

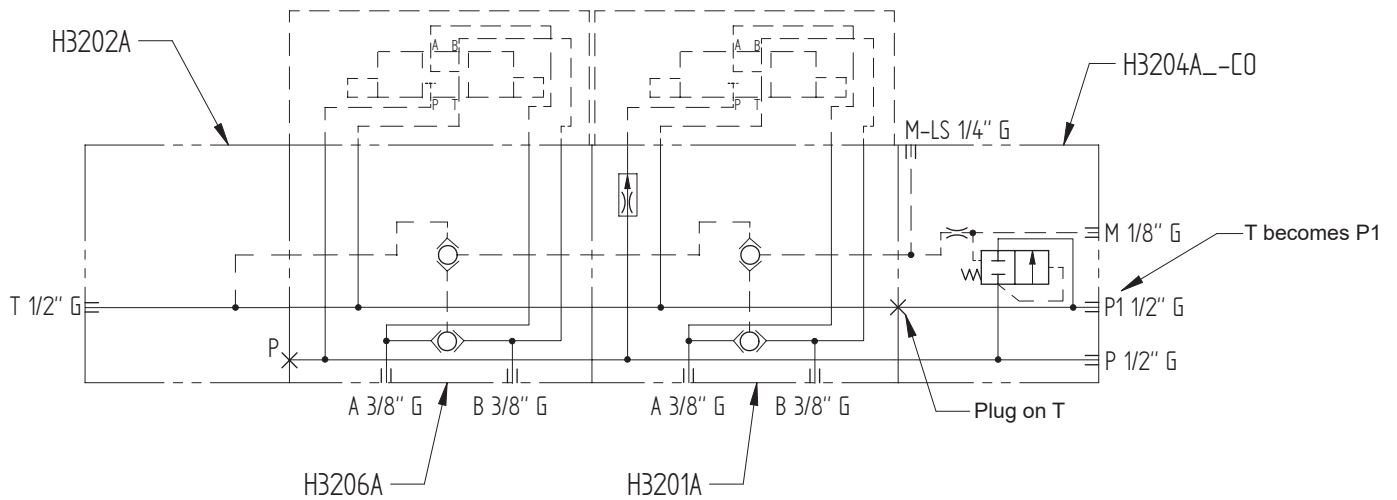
12.5 bar

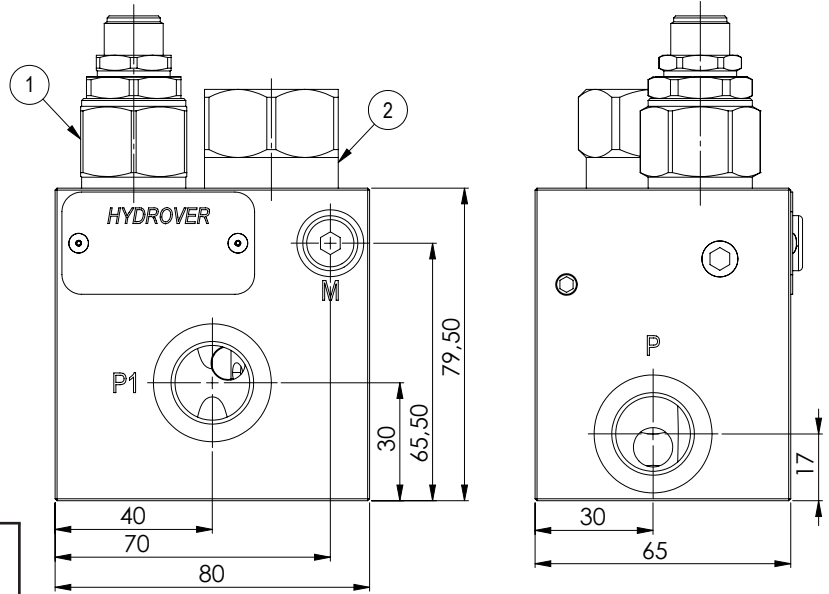
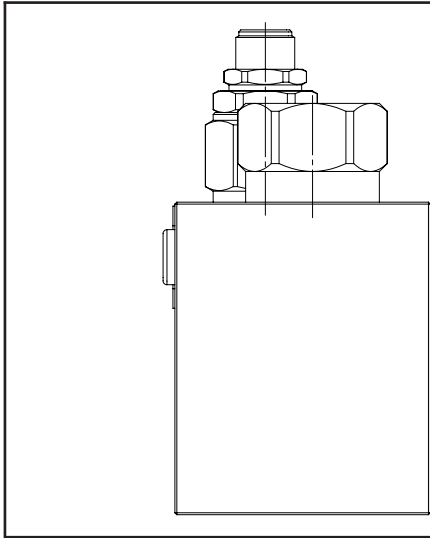
19 bar

Manifold material

Aluminium

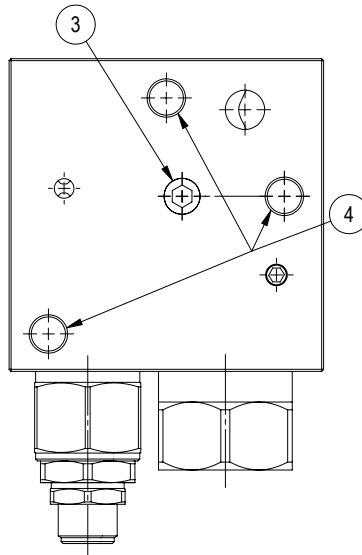
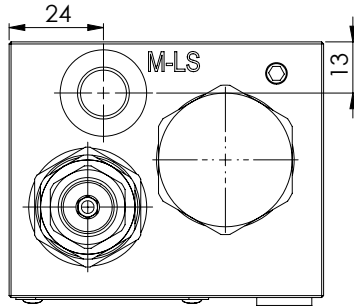
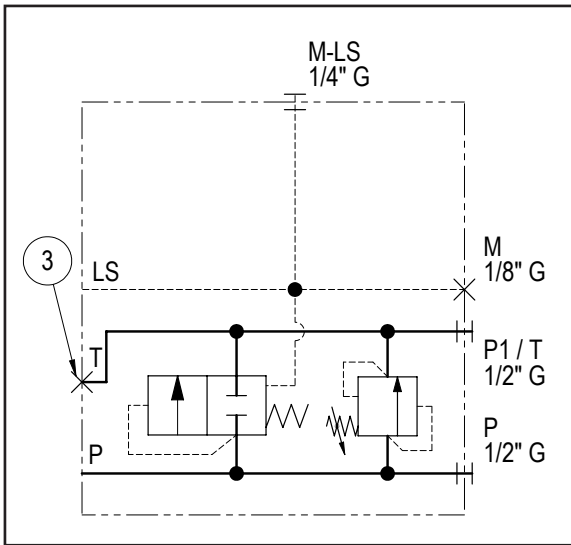
* The Carry over version have a plug on T. Authorizes the use of the flow in excess. T becomes P1.





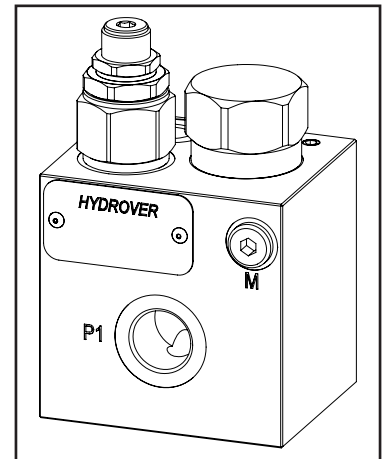
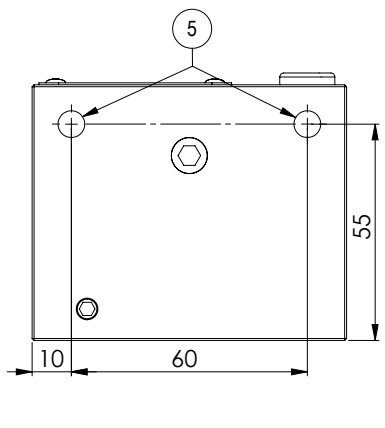
Dimensions in mm

Technical data	
Max. pressure	250 bar
Max. flow	70 lpm
Weight	1,6 Kg
Manifold material	Aluminium
M port	1/8" G
M-LS port	1/4" G
P / T (P1) ports	1/2" G



Valve depicted in carry over version

N°	Description	Q.ty
1	Bosch Rexroth relief valve VMD1.070 *	1
2	Pressure compensator	1
3	Plug on T for carry over versions	1
4	M8x13 for tie rod	3
5	M8x15 thread for mounting	2



Ordering code

H	3	2	1	9	A	_	_	_	-	_	_
---	---	---	---	---	---	---	---	---	---	---	---

Hydrover product

Product series

32 series - Load sensing modular Cetop 3 subplates for parallel circuits

Product ID

Manifold material

Aluminium

Compensator spring

5,5 bar (standard) = 6
 12,5 bar = 1
 19 bar = 2

_ =
 CO =

Carry over *

Standard
 T as carry over

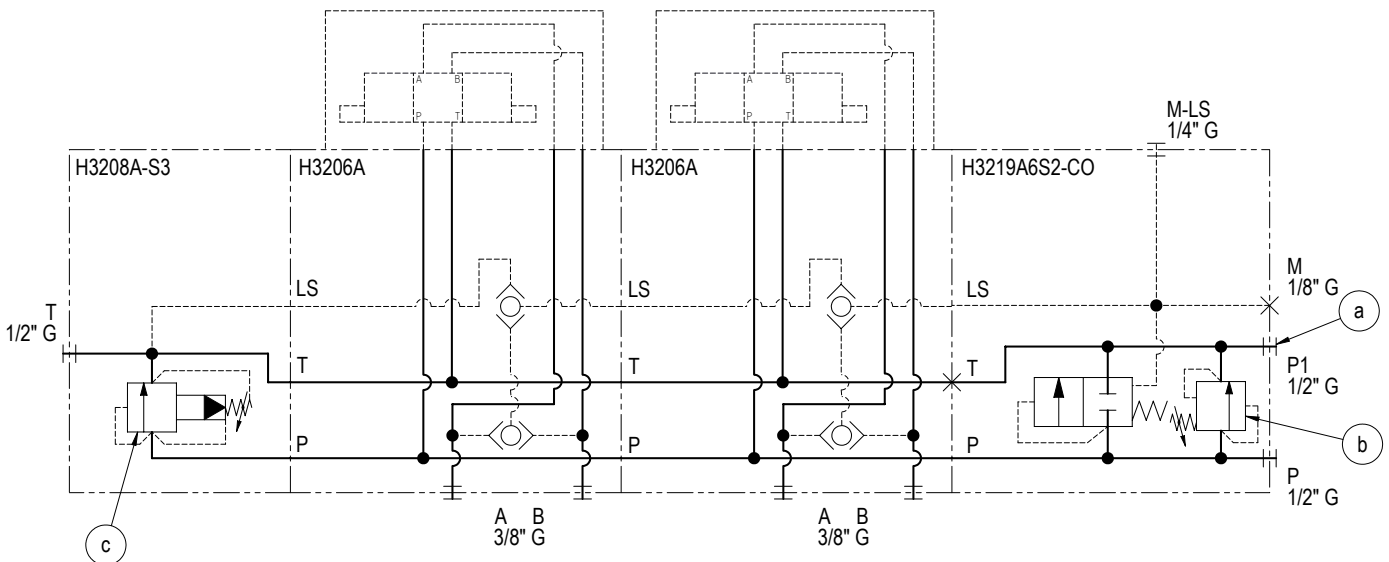
Relief valve adjustment pressure range *

0 = 10-60 bar
 1 = 40-110 bar
 2 = 110-220 bar
 3 = 220-260 bar

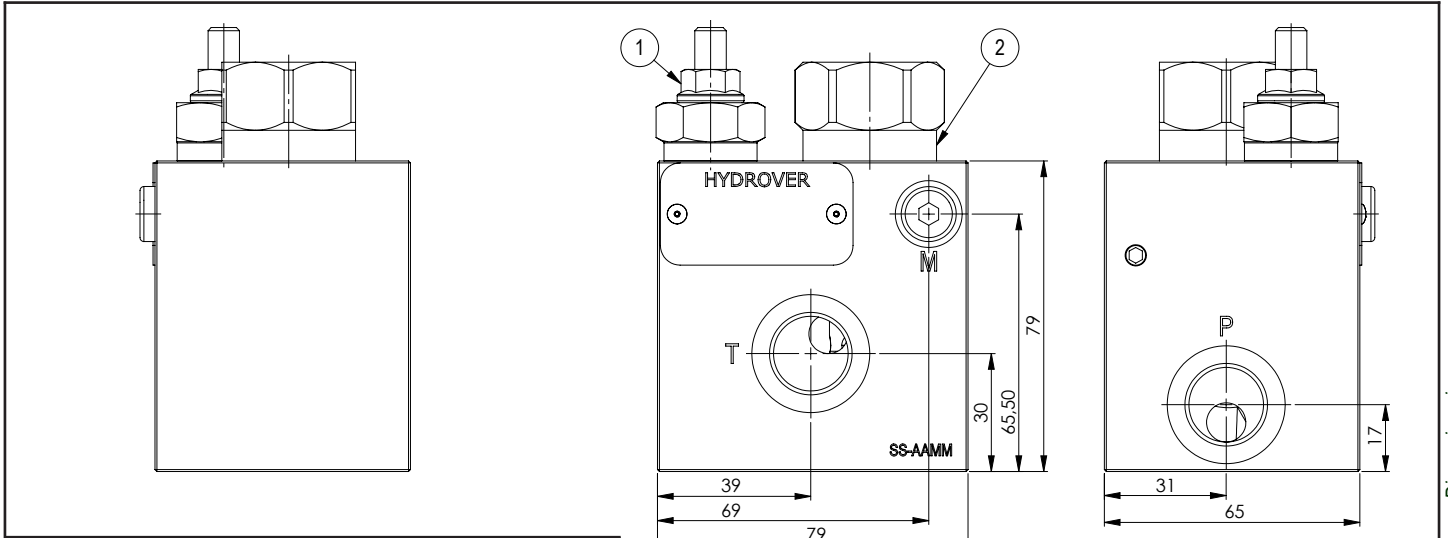
Relief valve adjustment type *

S = Screw

Assembly example with carry over. There is a plug on the T of the flange. Authorizes the use of the flow in excess. T becomes P1.

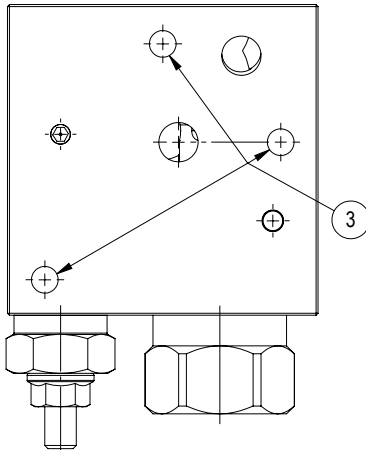
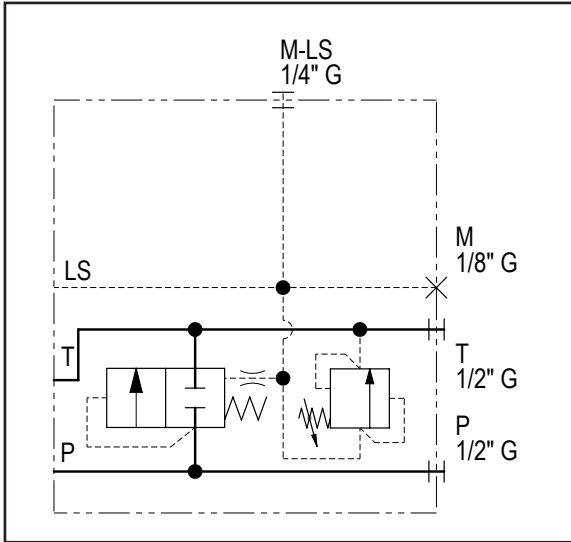
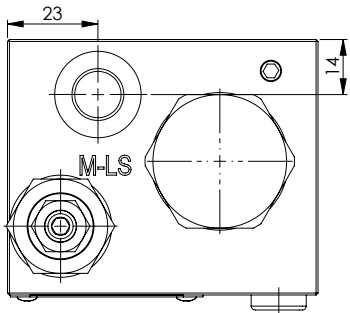


- a. T becomes P1. The hydraulic system powered by P1 must be able to send the oil to the tank (for example a bypass).
- b. The main block relief valve is active when the hydraulic system supplied by P1 send the oil to the tank.
- c. This relief valve is active for the main block and P1 if the hydraulic system supplied by P1 don't send the oil to the tank. The pressure setting of this relief valve must be higher than the b relief valve.

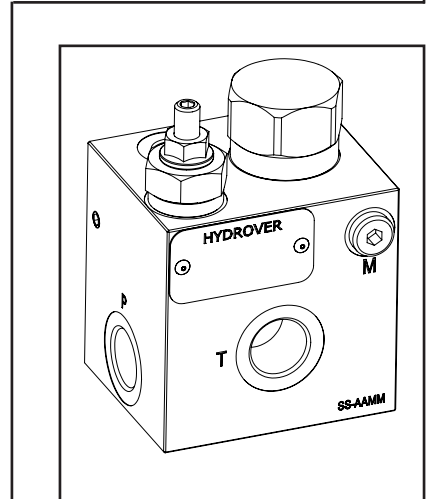
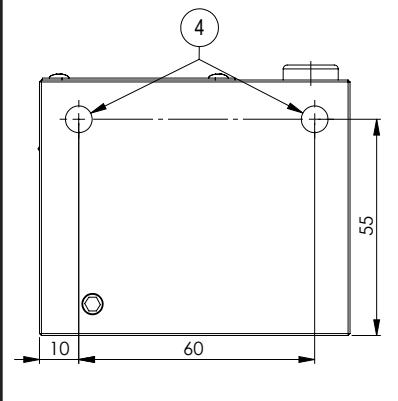


Dimensions in mm

Technical data	
Max. pressure	250 bar
Max. flow	90 lpm
Weight	1,4 Kg
Manifold material	Aluminium
M port	1/8" G
M-LS port	1/4" G
P / T ports	1/2" G



N°	Description	Q.ty
1	Bosch Rexroth relief valve VSBN-08A *	1
2	Pressure compensator	1
3	M8x13 for tie rod	3
4	M8x15 thread for mounting	2



Ordering code

H	3	2	2	3	A	-	-	-
---	---	---	---	---	---	---	---	---

Hydrover product

Product series

32 series - Load sensing modular Cetop 3 subplates for parallel circuits

Product ID

Manifold material

Aluminium

Compensator spring

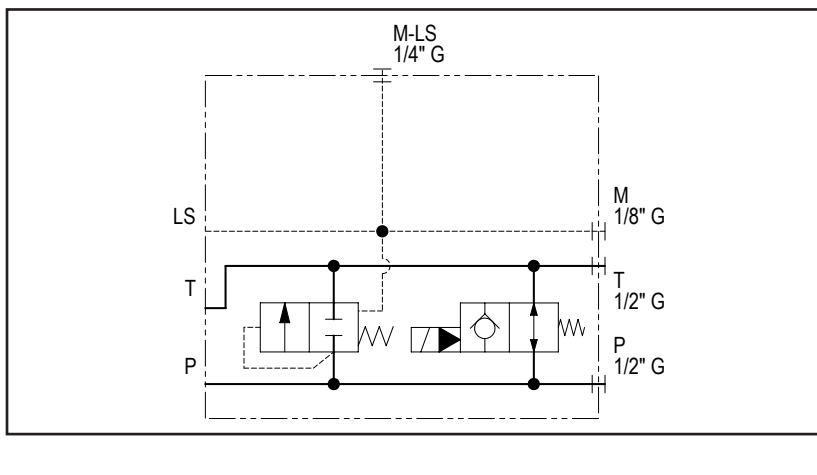
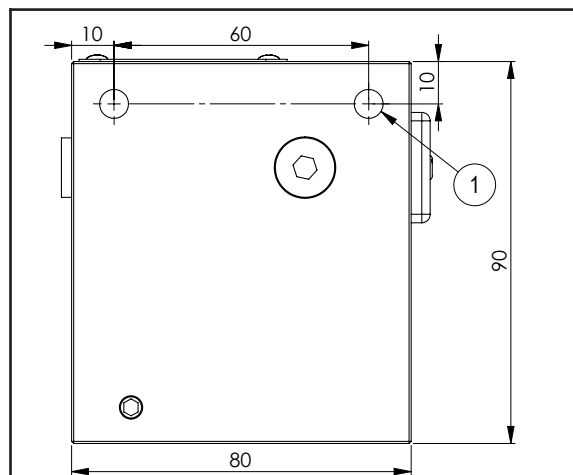
5,5 bar (standard)	= 6
12,5 bar	= 1
19 bar	= 2

Relief valve adjustment pressure range *

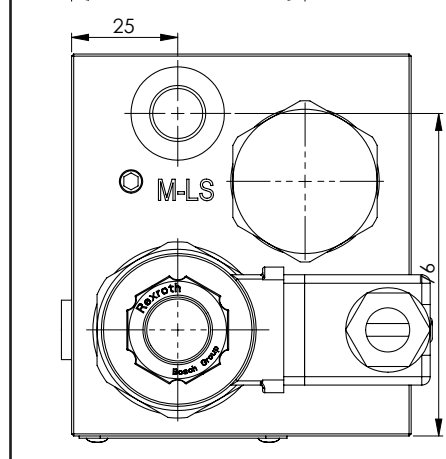
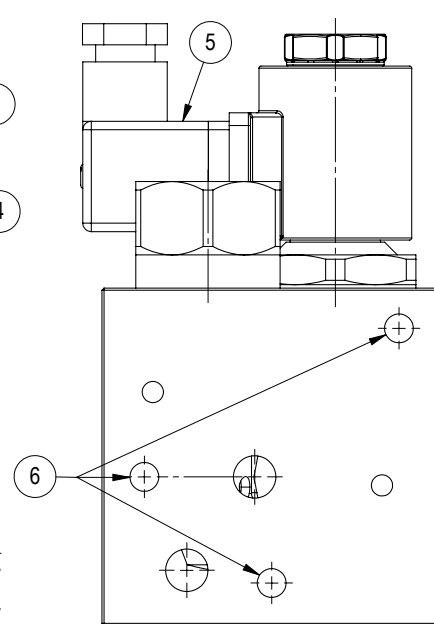
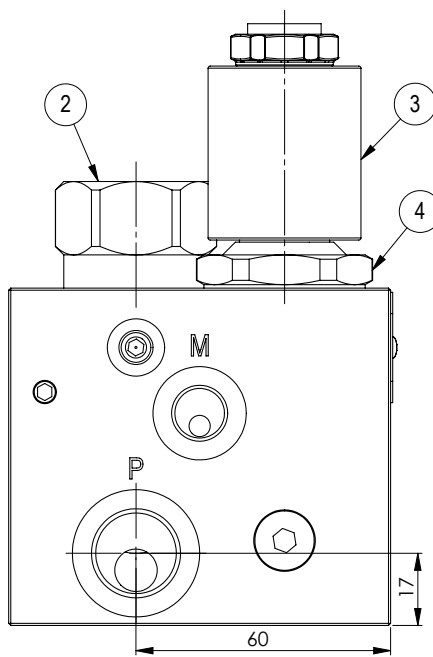
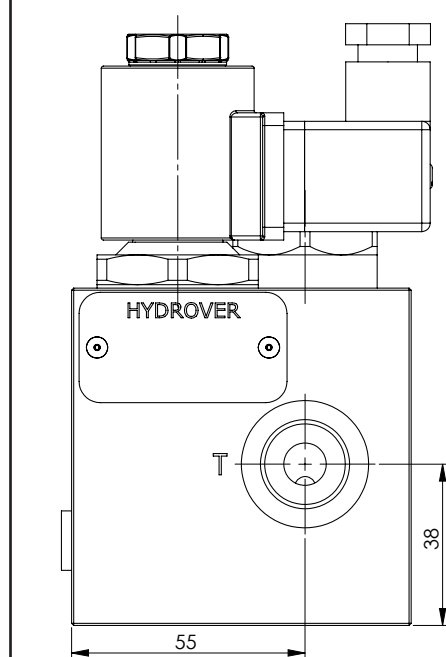
0 =	10-70 bar
1 =	35-140 bar
2 =	105-210 bar
3 =	175-350 bar
3 =	35-350 bar (adj. knob)

Relief valve adjustment type *

S =	Screw
K =	Knob



Dimensions in mm



Technical data	
Max. pressure	250 bar
Max. flow	90 lpm *
Weight	2,2 Kg
Manifold material	Aluminium
M port	1/8" G
M-LS port	1/4" G
P / T ports	1/2" G

N°	Description	Q.ty
1	M8x15 thread for mounting	2
2	Pressure compensator	1
3	Bosch Rexroth coil D36 - CLASS H DIN 43650 ISO 4400 *	1
4	Bosch Rexroth solenoid valve OD.15.06.21-Y-00000	1
5	Connector DIN 43650 ISO 4400	1
6	M8x15 for tie rod	3

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue

Ordering code

H	3	2	1	3	A	-	-	-	-	-	-	-
---	---	---	---	---	---	---	---	---	---	---	---	---

Hydrover product

Product series

32 series - Load sensing modular Cetop 3 subplates for parallel circuits

Product ID

Manifold material

Aluminium

Compensator spring

5.5 bar (standard) = 6
 12.5 bar = 1
 19 bar = 2

Solenoid valve coil connection *

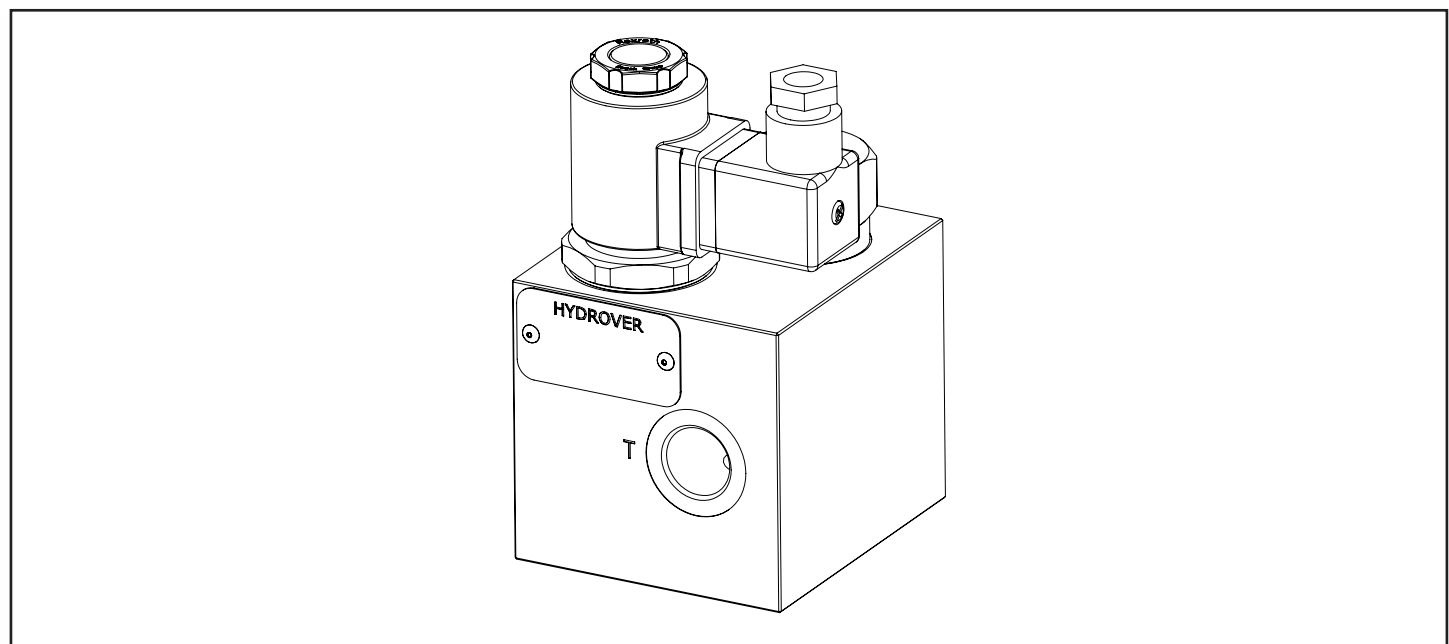
1 = DIN 43650 ISO 4400

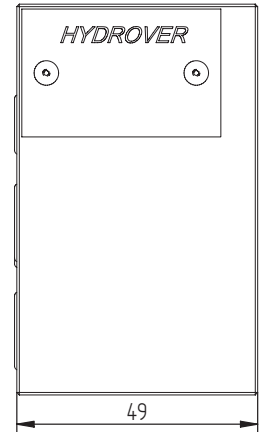
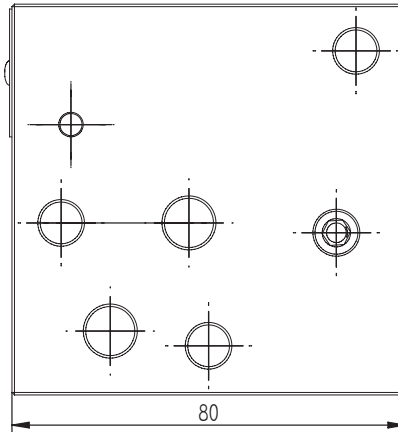
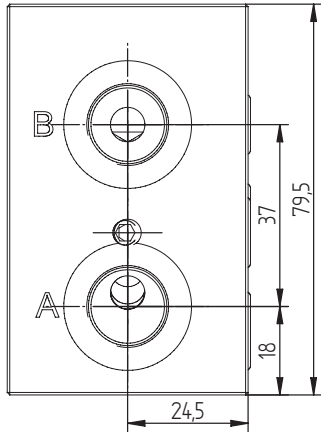
Solenoid valve coil voltage *

OB = 12V DC
 OC = 24V DC
 OD = 48V DC
 OU = 110V RAC
 AH = 230V RAC

Solenoid valve manual override *

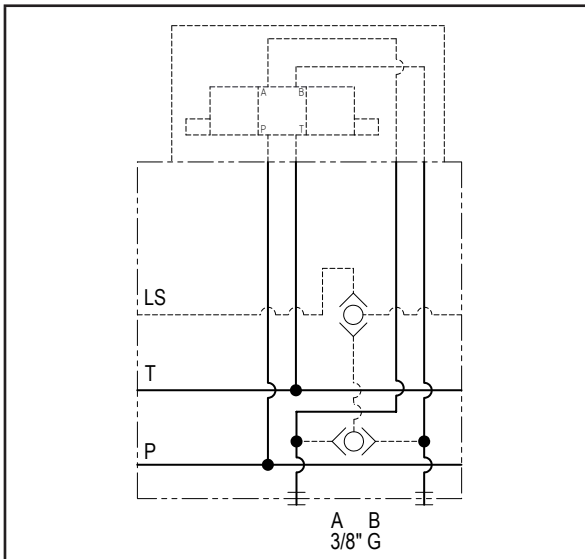
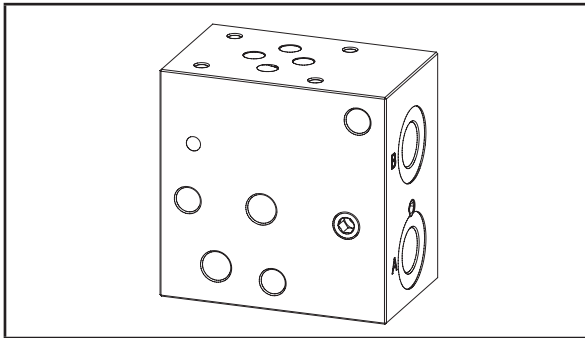
E0 = Without
 EP = Push (NA, 2A)
 EG = Push and twist (NA, 2A)



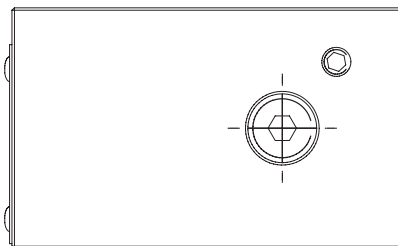
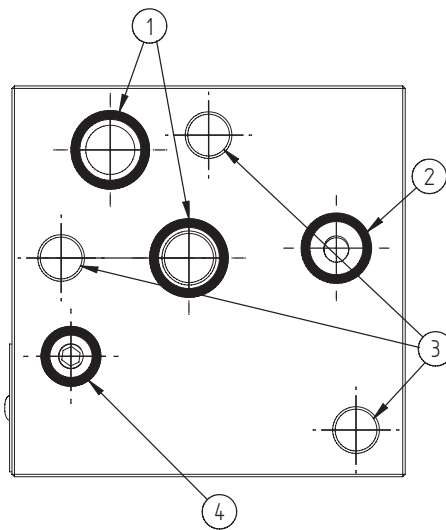
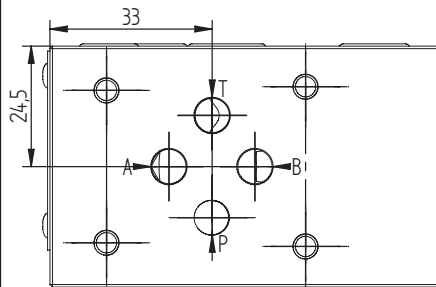


Dimensions in mm

Technical data	
Max. pressure	250 bar
Weight	0,8 Kg
Manifold material	Aluminium
A / B ports	3/8" G



N°	Description	Q.ty
1	OR 2050 i. Ø 12,42 c. s. 1,78 (P-T)	2
2	OR 2043 i. Ø 10,82 c. s. 1,78 (LS-FS)	1
3	Ø 8,5 through hole for tie rod	3
4	OR 108 i. Ø 8,73 c. s. 1,78	1



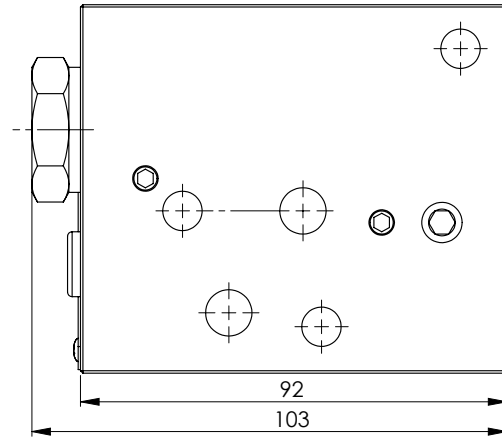
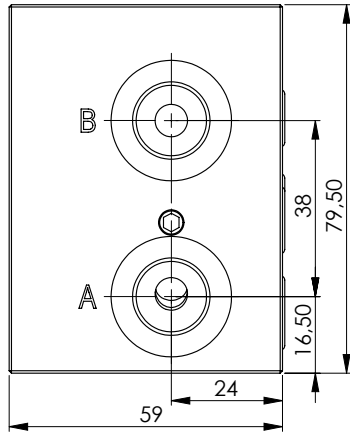
Ordering code

H	3	2	0	6	A
---	---	---	---	---	---

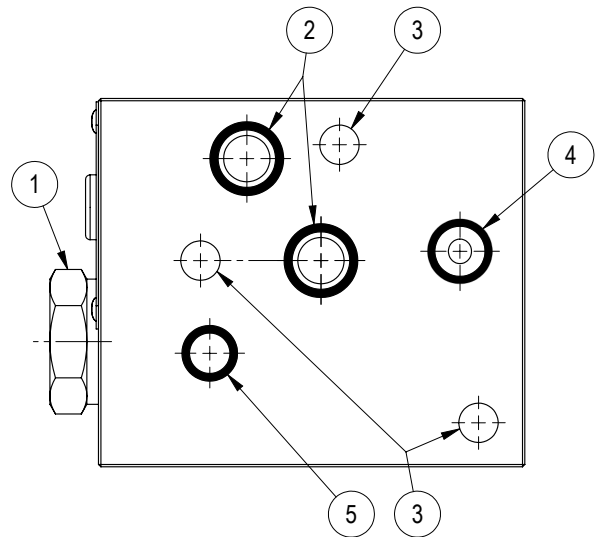
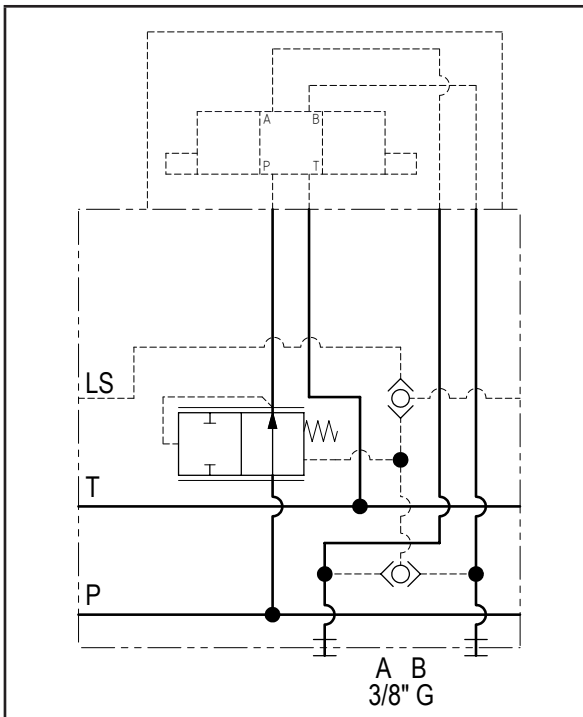
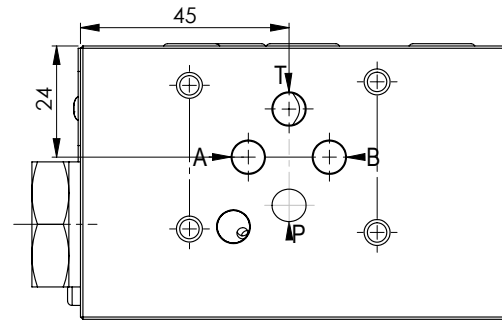
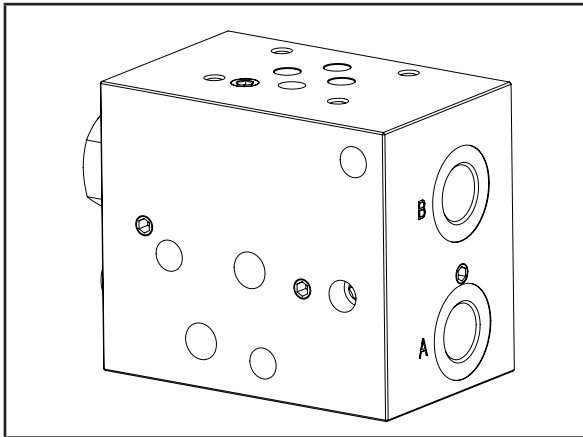
Hydrover product**Product series**

32 series - Load sensing modular Cetop 3 subplates for parallel circuits

Manifold material
Aluminium**Product ID**



Technical data	
Max. pressure	250 bar
Weight	1,2 Kg
Manifold material	Aluminium
A / B ports	3/8" G



N°	Description	Q.ty
1	Pressure compensator	1
2	OR 2050 i. Ø 12,42 c. s. 1,78 (P-T)	2
3	Ø 8,5 through hole for tie rod	3
4	OR 2043 i. Ø 10,82 c. s. 1,78 (LS-FS)	1
5	OR 108 i. Ø 8,73 c. s. 1,78	1

Dimensions in mm

Ordering code

H	3	2	2	2	A
---	---	---	---	---	---

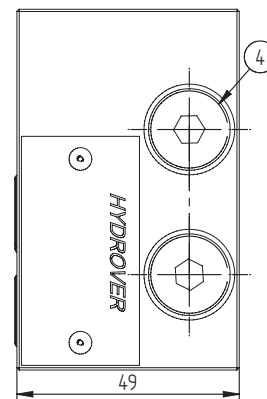
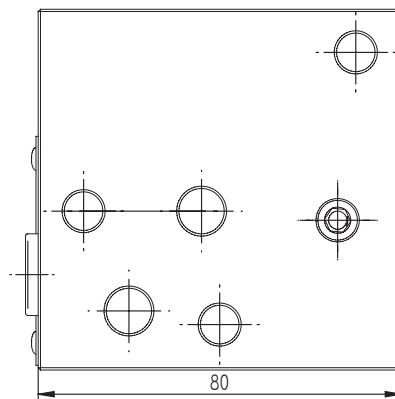
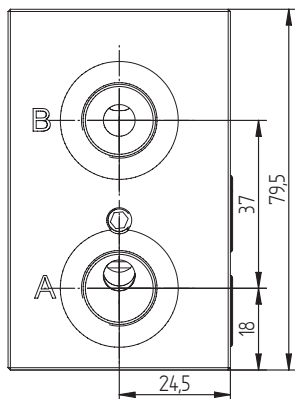
Hydrover product**Product series**

32 series - Load sensing modular Cetop 3 subplates for parallel circuits

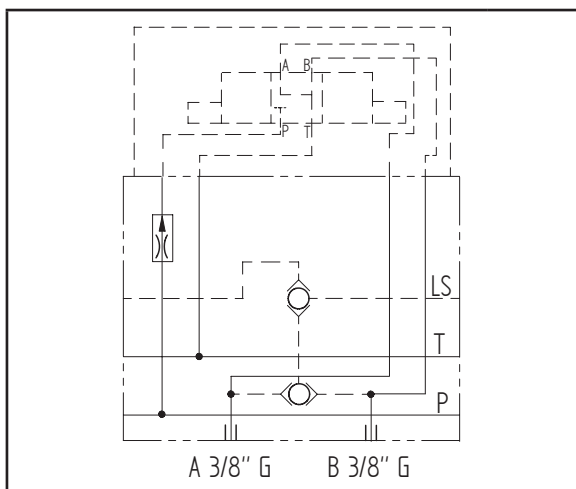
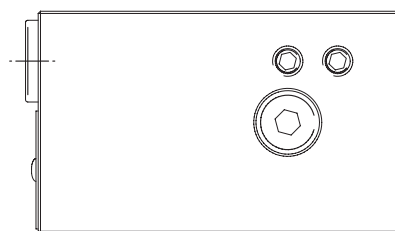
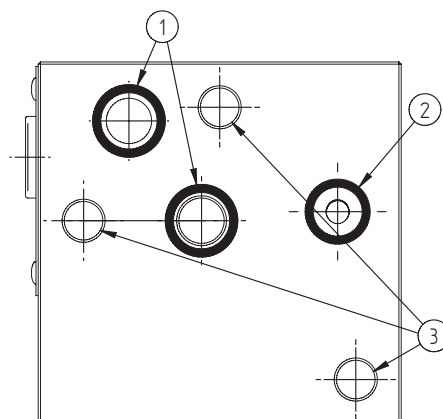
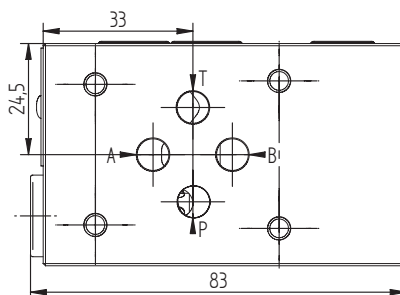
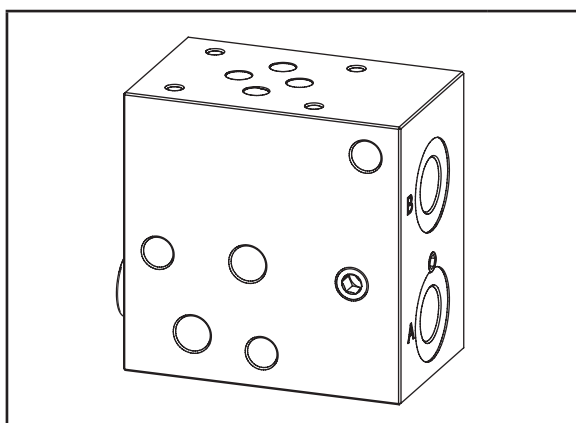
Manifold material
Aluminium**Product ID**

Intermediate subplate with 2 way compensated flow regulator
fixed flow rate from 1 to 10 lpm and 1 Cetop 3 station / side A-B ports

H3201



Technical data	
Max. pressure	210 bar
Weight	0,9 Kg
Manifold material	Aluminium
A / B ports	3/8" G



Dimensions in mm

N°	Description	Q.ty
1	OR 2050 i. Ø 12,42 cross section 1,78 (P-T)	2
2	OR 2043 i. Ø 10,82 cross section 1,78 (LS)	1
3	Ø 8,5 through hole for tie rod	3
4	2 way compensated flow regulator Bosch Rexroth 0T.F1.00.09-Z *	1

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue

Ordering code

H	3	2	0	1	A	-	_	_
---	---	---	---	---	---	---	---	---

Hydrover product

Product series

32 series - Load sensing modular Cetop 3 subplates for parallel circuits

Product ID

Regulated flow ± 10% at 100 bar

With regulator to drill

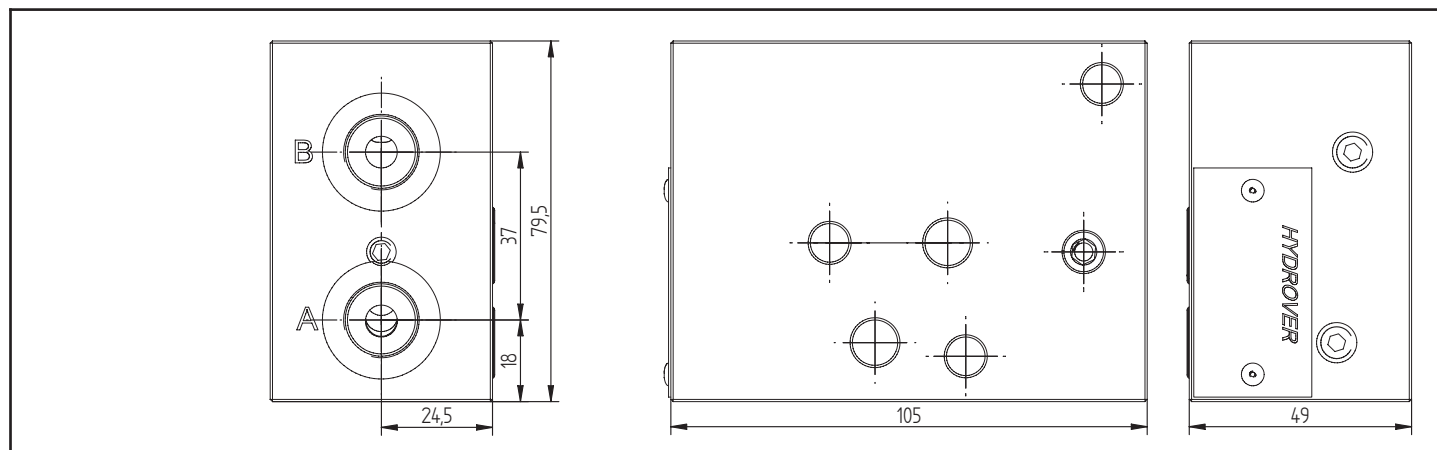
00 =	
01 =	1 lpm
02 =	2 lpm
03 =	3 lpm
04 =	4 lpm
05 =	5 lpm
06 =	6 lpm
07 =	7 lpm
08 =	8 lpm
09 =	9 lpm
10 =	10 lpm

Manifold material

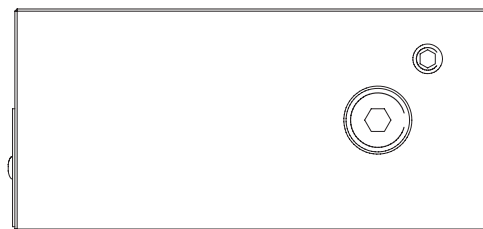
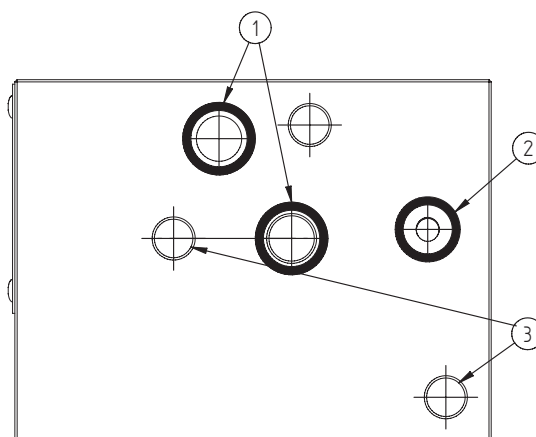
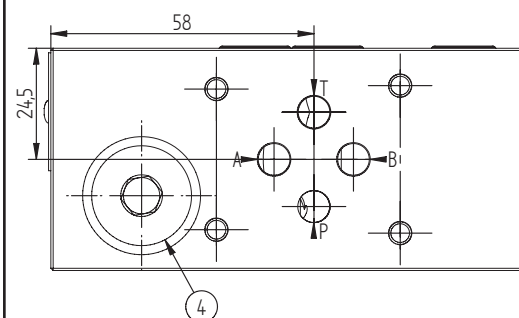
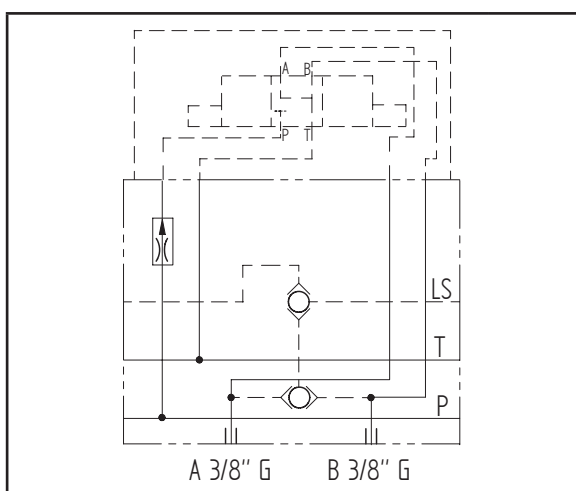
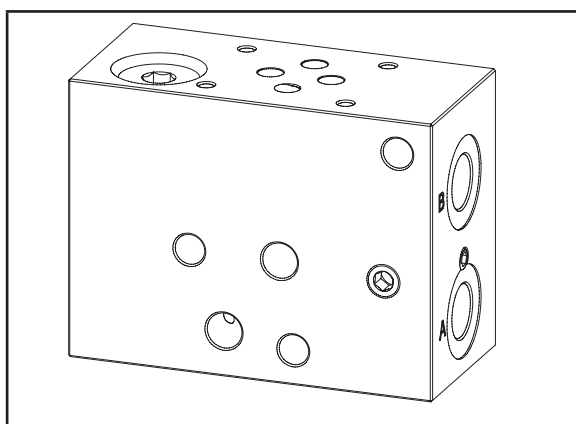
Aluminium

Intermediate subplate with 2 way compensated flow regulator
fixed flow rate from 4 to 16 lpm and 1 Cetop 3 station / side A-B ports

H3205



Technical data	
Max. pressure	210 bar
Weight	1,2 Kg
Manifold material	Aluminium
A / B ports	3/8" G



Dimensions in mm

N°	Description	Q.ty
1	OR 2050 i. Ø 12,42 cross section 1,78 (P-T)	2
2	OR 2043 i. Ø 10,82 cross section 1,78 (LS)	1
3	Ø 8,5 through hole for tie rod	3
4	2 way compensated flow regulator Bosch Rexroth 0T.F1.00.02-Z *	1

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue

Ordering code

H	3	2	0	5	A	-	_	_
---	---	---	---	---	---	---	---	---

Hydrover product

Product series

32 series - Load sensing modular Cetop 3 subplates for parallel circuits

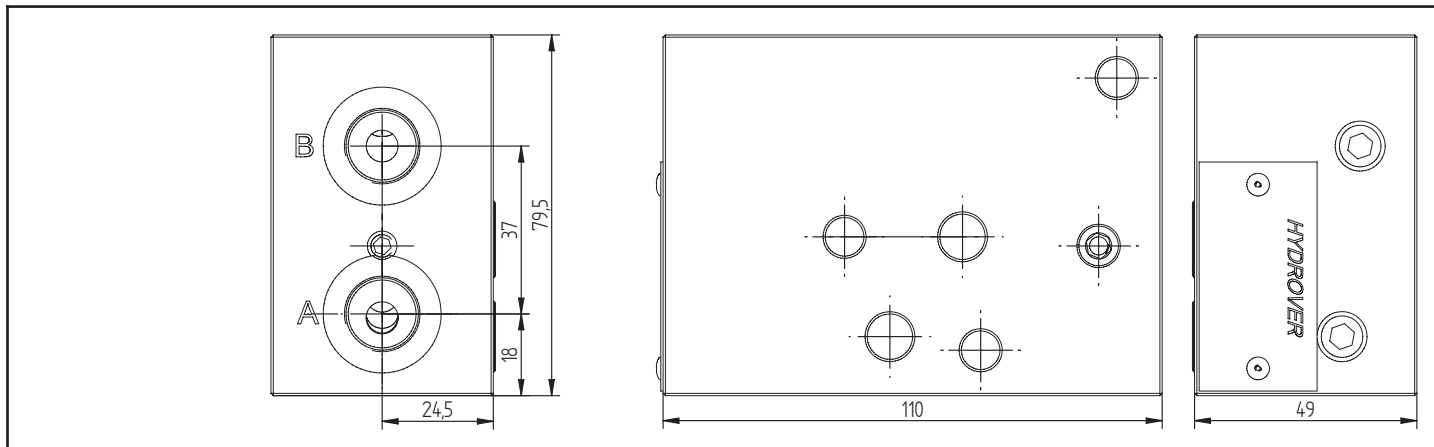
Product ID

Regulated flow ± 10% at 100 bar

00 =	With regulator to drill (4-10 lpm)
04 =	4 lpm
05 =	5 lpm
06 =	6 lpm
08 =	8 lpm
10 =	10 lpm
12 =	12 lpm
14 =	14 lpm
16 =	16 lpm

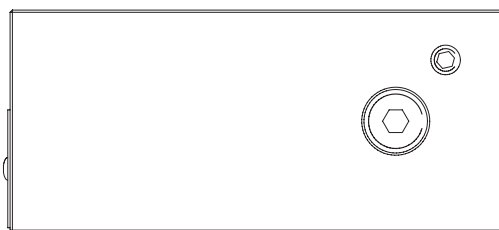
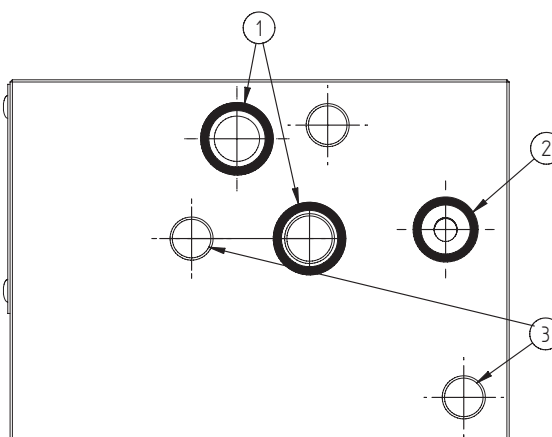
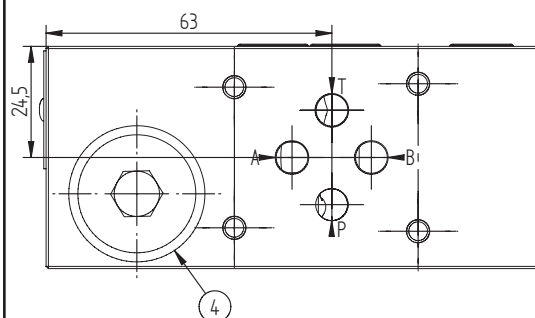
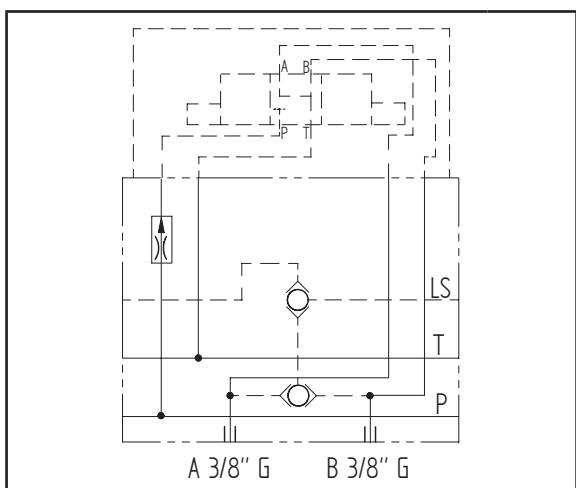
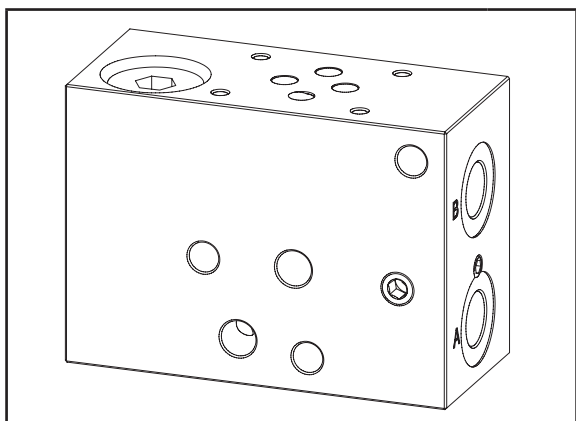
Manifold material

Aluminium



Dimensions in mm

Technical data	
Max. pressure	210 bar
Weight	1,1 Kg
Manifold material	Aluminium
A / B ports	3/8" G



N°	Description	Q.ty
1	OR 2050 i. Ø 12,42 cross section 1,78 (P-T)	2
2	OR 2043 i. Ø 10,82 cross section 1,78 (LS)	1
3	Ø 8,5 through hole for tie rod	3
4	2 way compensated flow regulator Bosch Rexroth 0T.F1.00.0-Z *	1

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue

Ordering code

H	3	2	0	7	A	-	_	_
---	---	---	---	---	---	---	---	---

Hydrover product

Product series

32 series - Load sensing modular Cetop 3 subplates for parallel circuits

Product ID

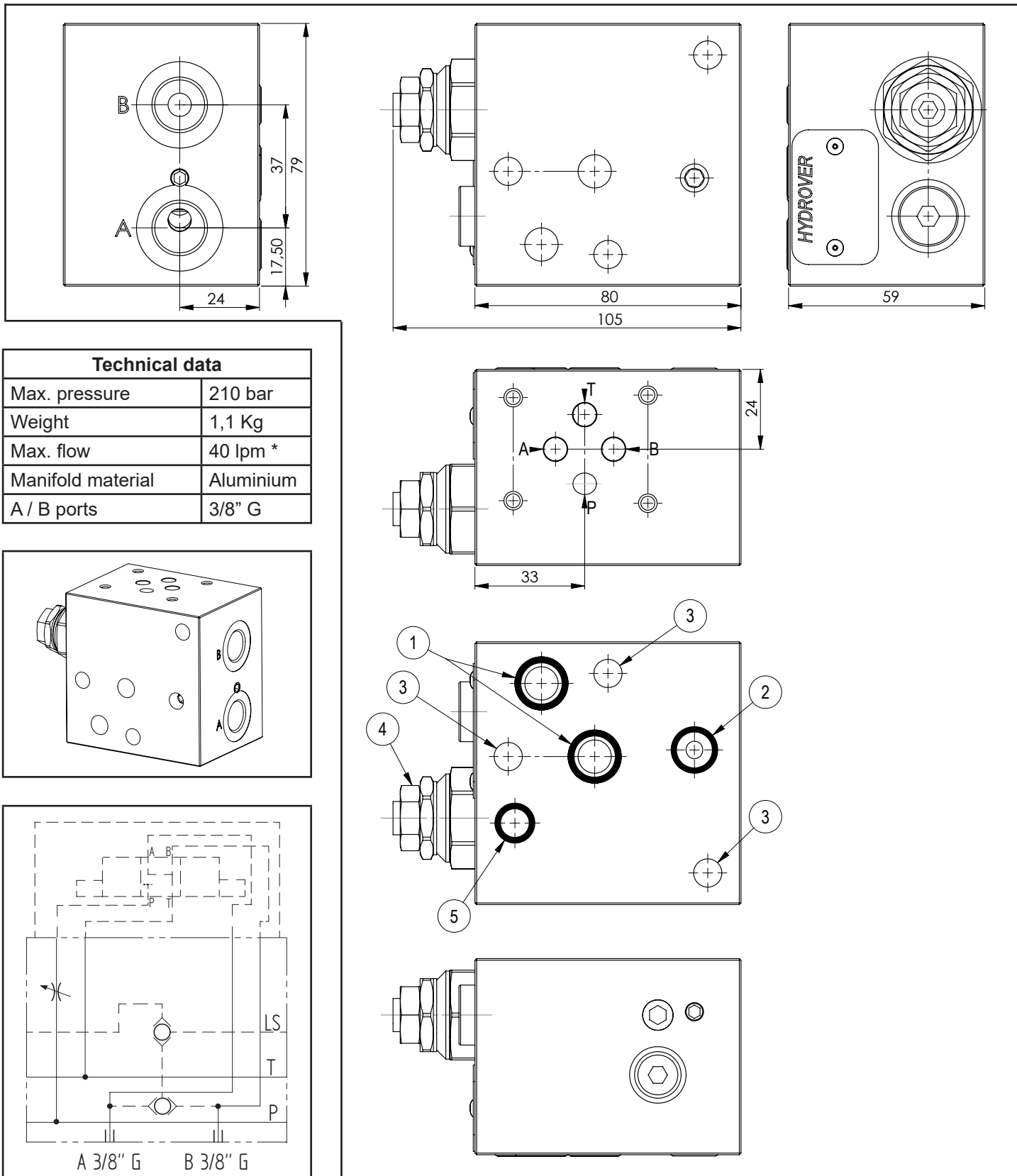
Regulated flow ± 10% at 100 bar

With regulator to drill

00 =	12 lpm
12 =	16 lpm
16 =	20 lpm
20 =	25 lpm
25 =	30 lpm
30 =	

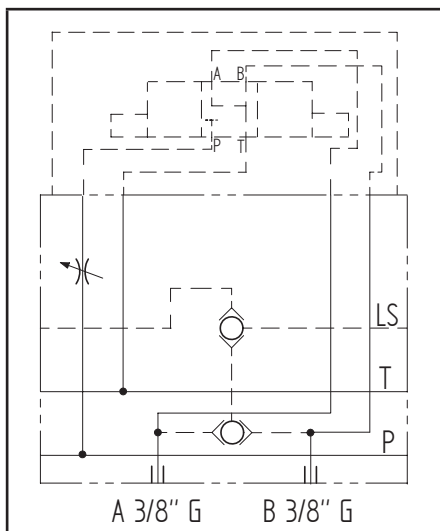
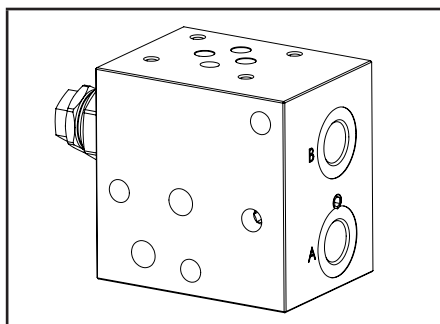
Manifold material

Aluminium



Dimensions in mm

Technical data	
Max. pressure	210 bar
Weight	1,1 Kg
Max. flow	40 lpm *
Manifold material	Aluminium
A / B ports	3/8" G



N°	Description	Q.ty
1	OR 2050 i. Ø 12,42 cross section 1,78 (P-T)	2
2	OR 2043 i. Ø 10,82 cross section 1,78 (LS)	1
3	Ø 8,5 through hole for tie rod	3
4	Bosch Rexroth bidirectional flow restrictor OD.21.01-X-36 * depicted with screw adjustment	1
5	OR 108 i. Ø 8,73 cross section 1,78	1

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue

Ordering code

H	3	2	1	5	A	-	-	-
---	---	---	---	---	---	---	---	---

Hydrover product

Product series

32 series - Load sensing modular Cetop 3 subplates for parallel circuits

Product ID

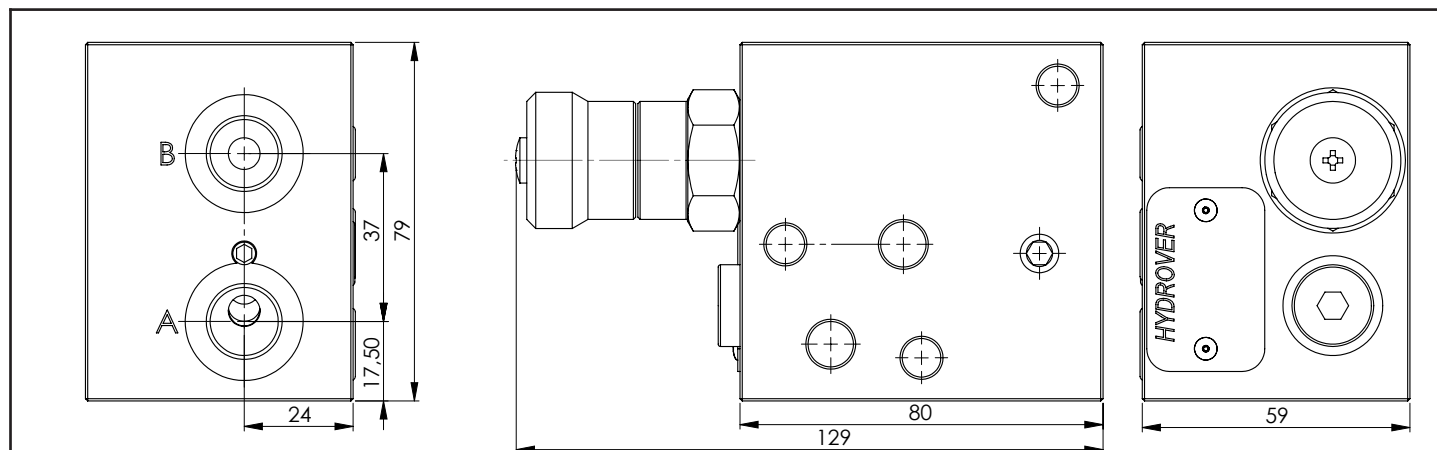
Restrictor adjustment type*

SQ = Screw
KQ = Knob

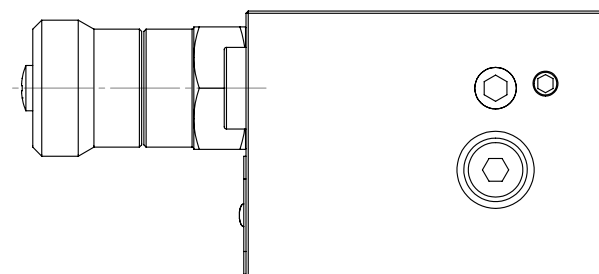
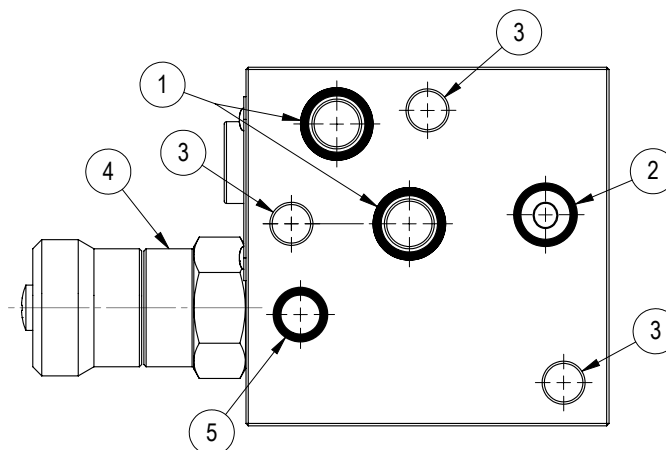
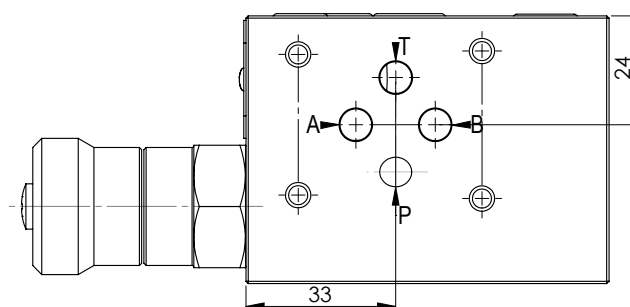
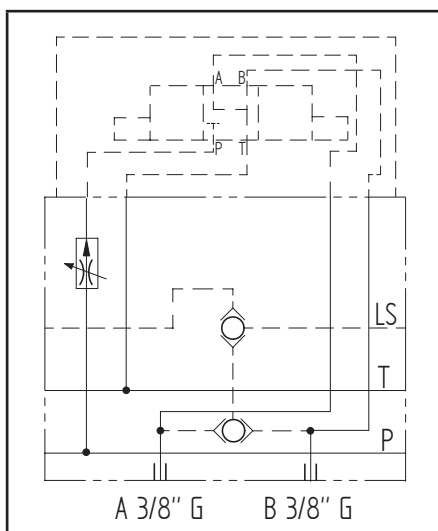
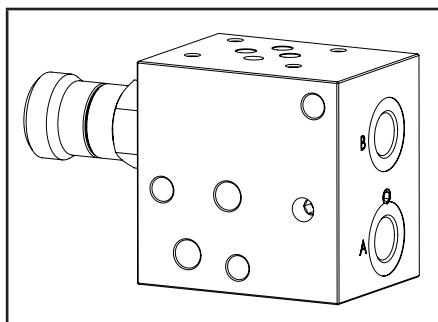
Manifold material

Aluminium

* Omit if not required. To order the product without restrictor cartridge valve, omit the restrictor adjustment type variable: H3215A.
The manifold will still be provided with the corresponding cavity.



Technical data	
Max. pressure	210 bar
Weight	1,2 Kg
Regulated max. flow	30 lpm *
Manifold material	Aluminium
A / B ports	3/8" G



Dimensions in mm

N°	Description	Q.ty
1	OR 2050 i. Ø 12,42 cross section 1,78 (P-T)	2
2	OR 2043 i. Ø 10,82 cross section 1,78 (LS)	1
3	Ø 8,5 through hole for tie rod	3
4	Bosch Rexroth 2 way compensated flow regulator 04.02.02.40.85-Z *	1
5	OR 108 i. Ø 8,73 cross section 1,78	1

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue

Ordering code

H	3	2	0	9	A	-	C	_
---	---	---	---	---	---	---	---	---

Hydrover product

Product series

32 series - Load sensing modular Cetop 3 subplates for parallel circuits

Product ID

Flow regulator range

2= 0,1 - 20 lpm
3= 0,2 - 30 lpm

Flow regulator adjustment type

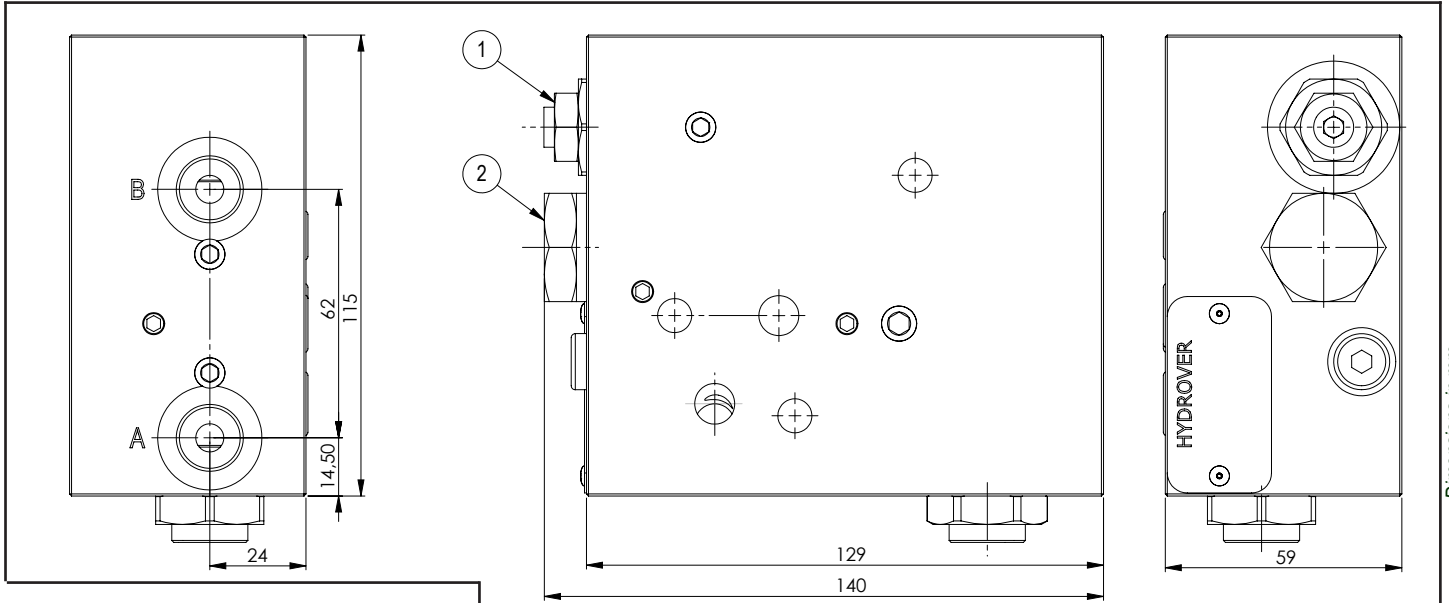
Calibrated knob

Manifold material

Aluminium

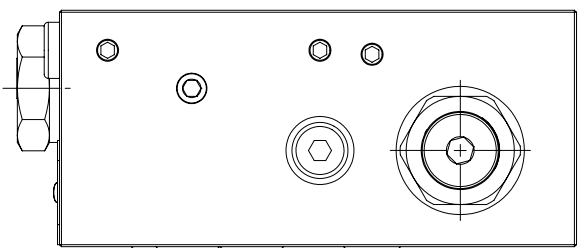
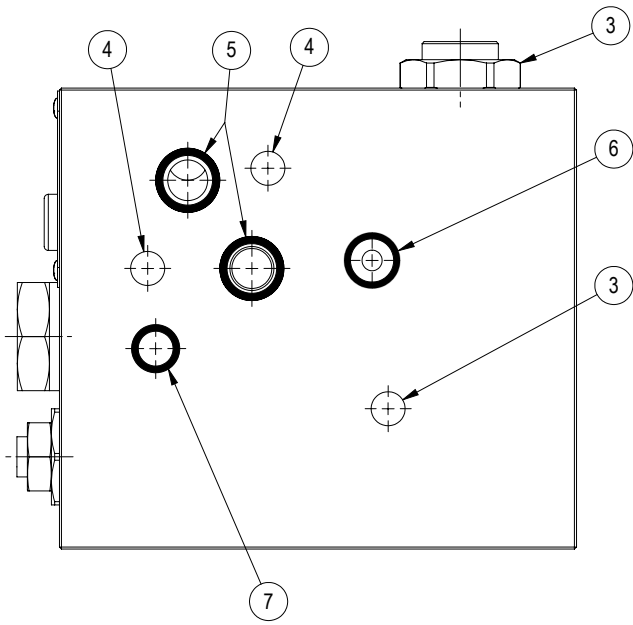
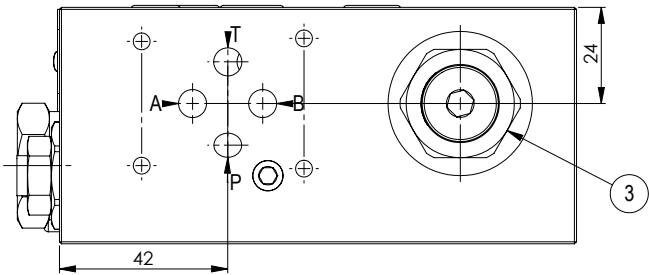
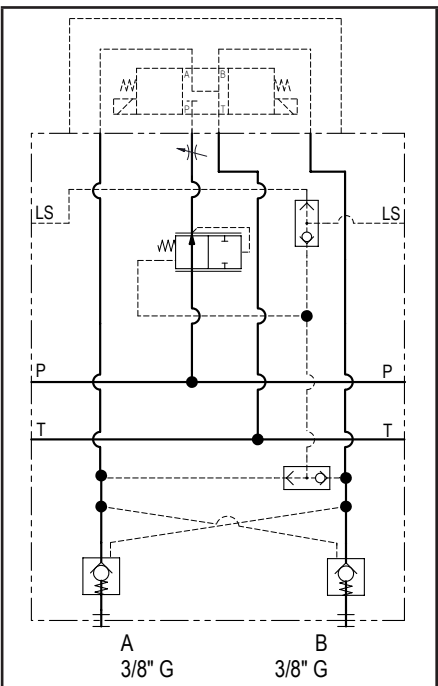
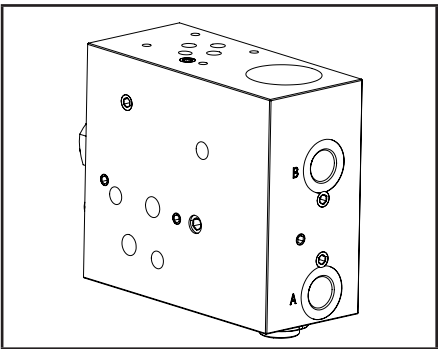
Intermediate subplate with 2 way compensated flow regulator
pilot operated check valves on A and B / 1 Cetop 3 station / side A-B ports

H3226



Dimensions in mm

Technical data	
Max. pressure	250 bar
Weight	2,6 Kg
Regulated max. flow	25 lpm
Manifold material	Aluminium
A / B ports	3/8" G



Ordering code

H	3	2	2	6	A
---	---	---	---	---	---

Hydrover product

Manifold material
Aluminium

Product series

32 series - Load sensing modular Cetop 3 subplates for parallel circuits

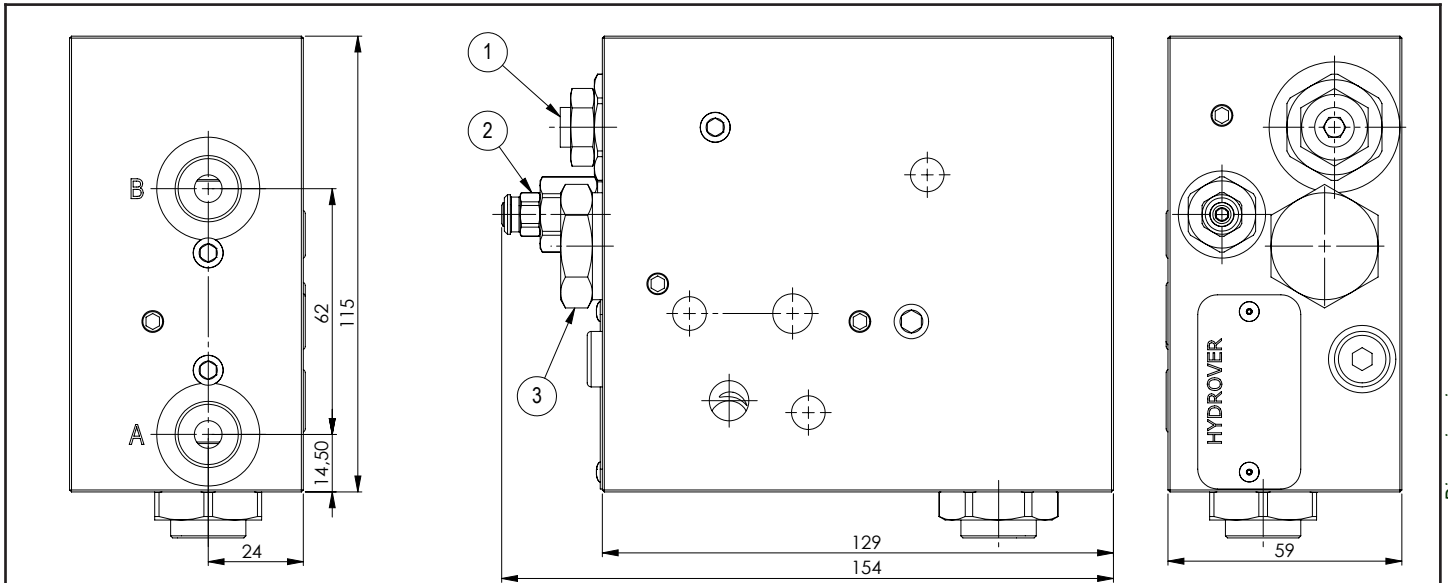
Product ID

N°	Description	Q.ty
1	Flow restrictor	1
2	Pressure compensator	1
3	Bosch Rexroth check valve VU-38 *	2
4	Ø 8,5 through hole for tie rod	3
5	OR 2050 i. Ø 12,42 cross section 1,78 (P-T)	2
6	OR 2043 i. Ø 10,82 cross section 1,78 (LS)	1
7	OR 108 i. Ø 8,73 cross section 1,78	1

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue

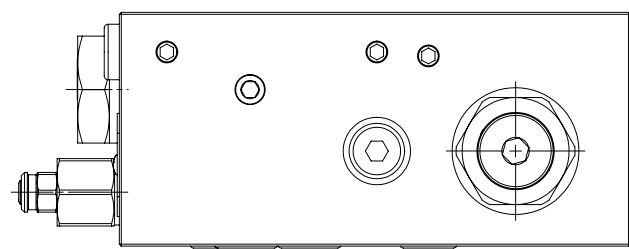
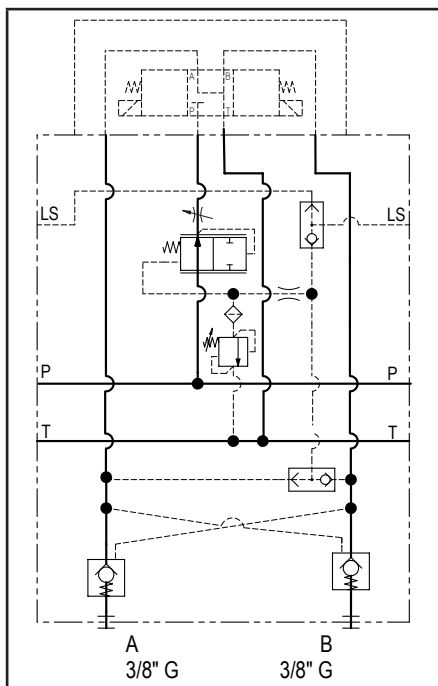
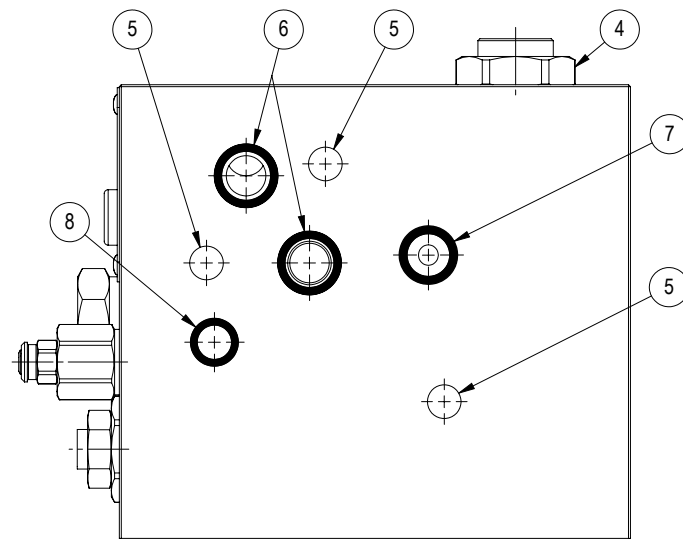
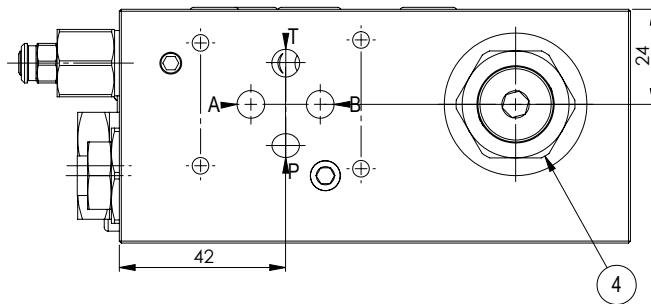
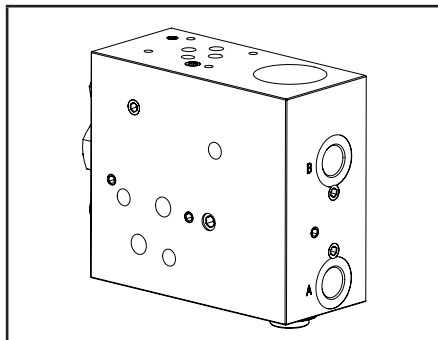
Intermediate subplate with 2 way compensated flow regulator / relief valve on P pilot operated check valves on A and B / 1 Cetop 3 station / side A-B ports

H3231



Dimensions in mm

Technical data	
Max. pressure	250 bar
Weight	2,6 Kg
Regulated max. flow	25 lpm
Manifold material	Aluminium
A / B ports	3/8" G



Ordering code

H	3	2	3	1	A	-	S	_
---	---	---	---	---	---	---	---	---

Hydrover product

Product series

32 series - Load sensing modular Cetop 3 subplates for parallel circuits

Product ID

Manifold material

Aluminium

Relief valve adjustment pressure range

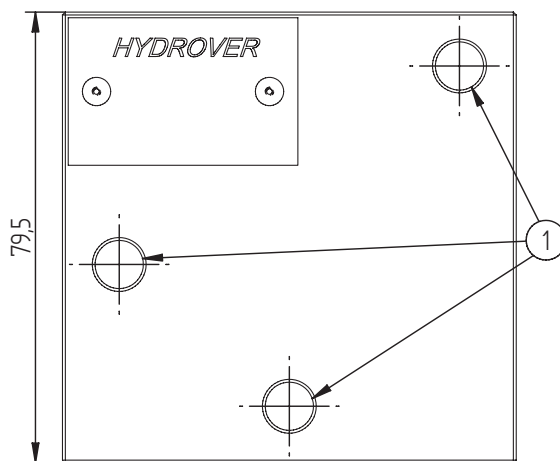
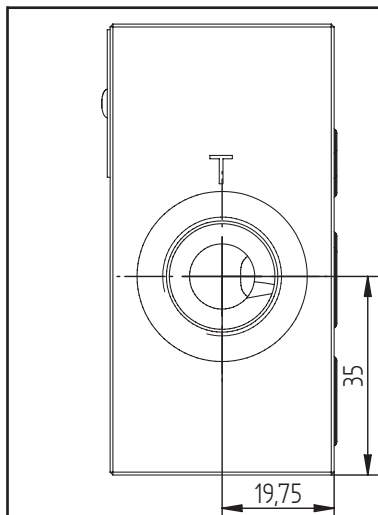
1 = 30-100 bar
2 = 100-250 bar

Relief valve adjustment type

S = Screw

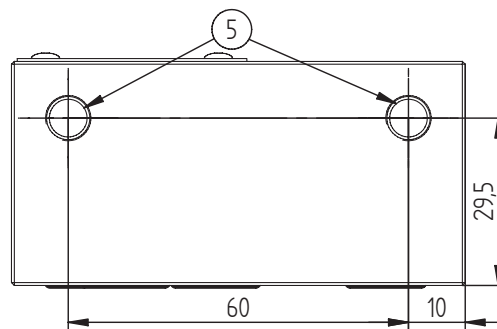
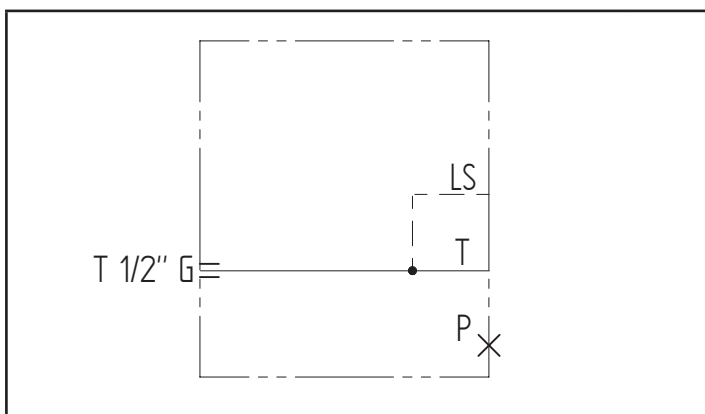
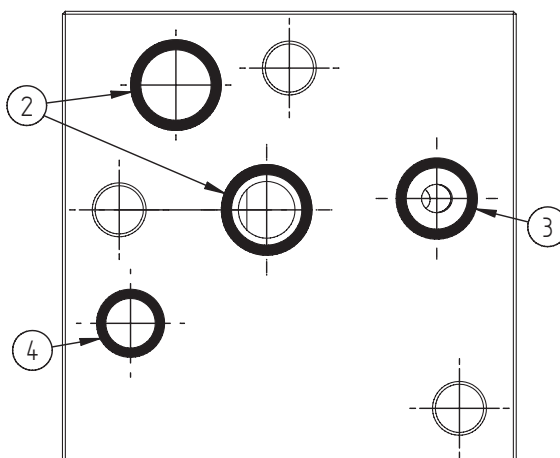
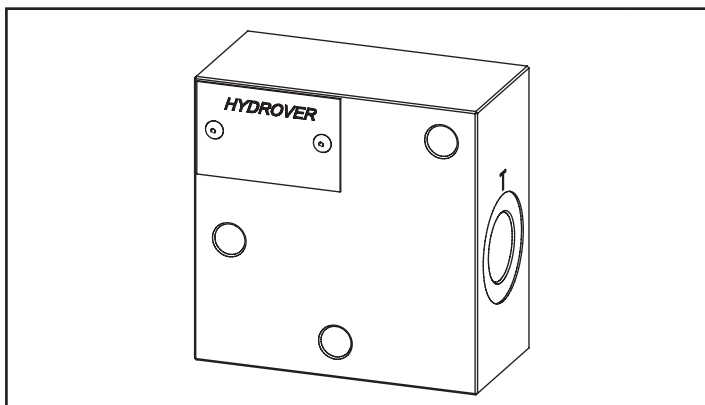
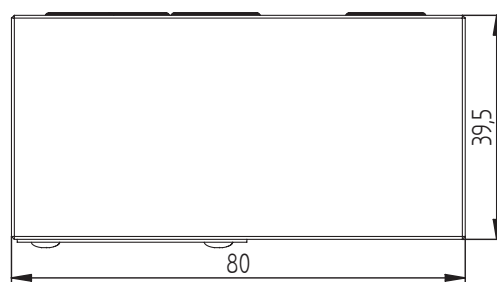
N°	Description	Q.ty
1	Flow restrictor	1
2	Relief valve with filter	1
3	Pressure compensator	1
4	Bosch Rexroth check valve VU-38 *	2
5	Ø 8,5 through hole for tie rod	3
6	OR 2050 i. Ø 12,42 cross section 1,78 (P-T)	2
7	OR 2043 i. Ø 10,82 cross section 1,78 (LS)	1
8	OR 108 i. Ø 8,73 cross section 1,78	1

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue



Dimensions in mm

Technical data	
Max. pressure	250 bar
Weight	0,7 Kg
Manifold material	Aluminium
T port	1/2" G



N°	Description	Q.ty
1	Ø 8,5 through hole for tie rod	3
2	OR 2050 i. Ø 12,42 cross section 1,78 (P-T)	2
3	OR 2043 i. Ø 10,82 cross section 1,78 (LS-FS)	1
4	OR 108 i. Ø 8,73 cross section 1,78	1
5	M8x13 for mounting	2

Ordering code

H	3	2	0	2	A
---	---	---	---	---	---

Hydrover product

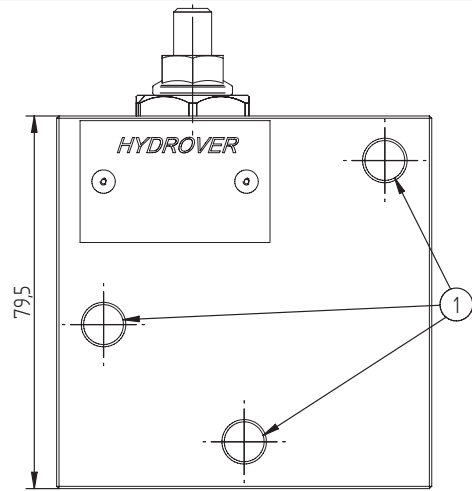
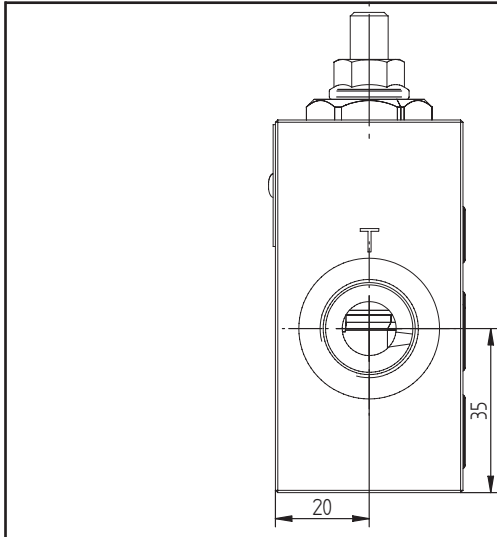
Manifold material
Aluminium

Product series

32 series - Load sensing modular Cetop 3 subplates for parallel circuits

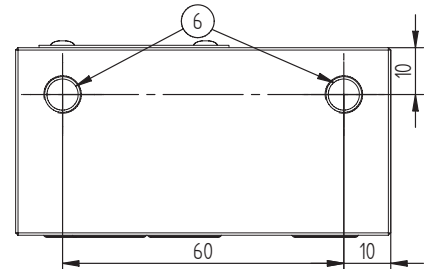
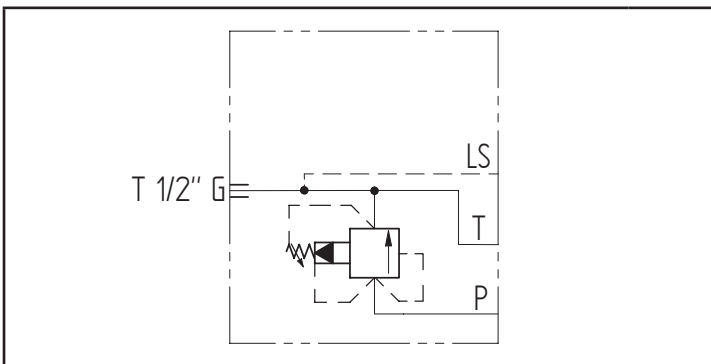
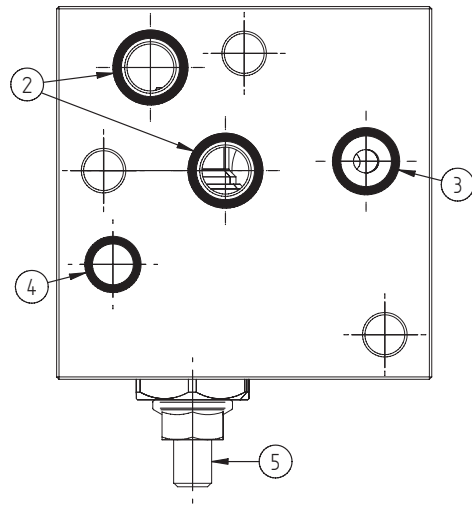
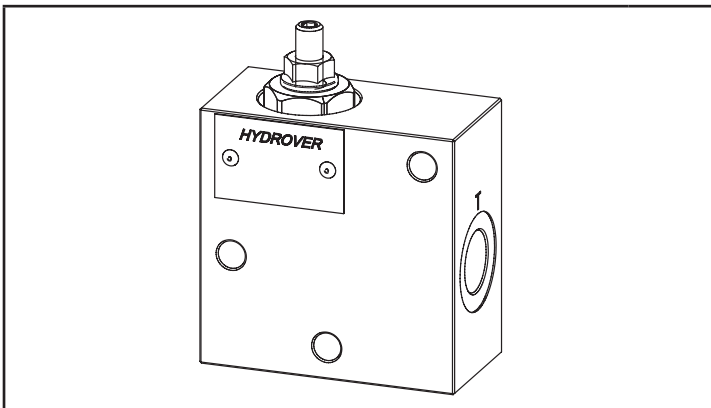
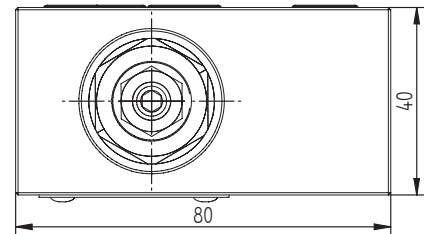
Product ID

Note: this closing plate can be used as a blind closing plate. Just add in T a 1/2" G plug.



Dimensions in mm

Technical data	
Max. pressure	250 bar
Max. flow	90 lpm *
Weight	0,8 Kg
Manifold material	Aluminium
T port	1/2" G



N°	Description	Q.ty
1	Ø 8,5 through hole for tie rod	3
2	OR 2050 i. Ø 12,42 cross section 1,78 (P-T)	2
3	OR 2043 i. Ø 10,82 cross section 1,78 (LS)	1
4	OR 108 i. Ø 8,73 cross section 1,78	1

N°	Description	Q.ty
5	Bosch Rexroth relief valve VSPN-10A * depicted with screw adjustment	1
6	M8x13 for mounting	2

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue

Ordering code

H	3	2	0	8	A	-	-	-
---	---	---	---	---	---	---	---	---

Hydrover product

Product series

32 series - Load sensing modular
Cetop 3 subplates for parallel circuits

Product ID

Manifold material

Aluminium

**Relief valve
adjustment pressure range ***

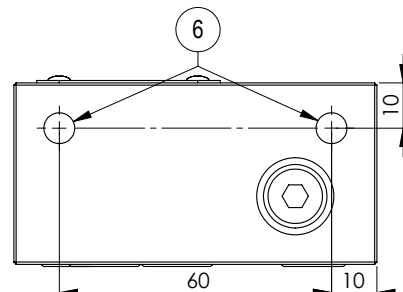
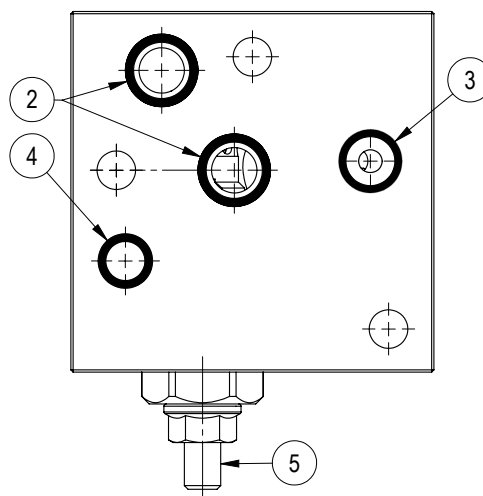
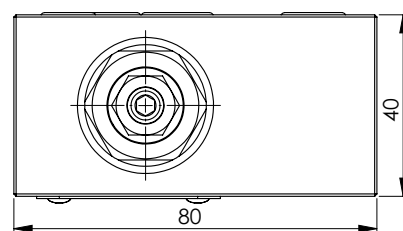
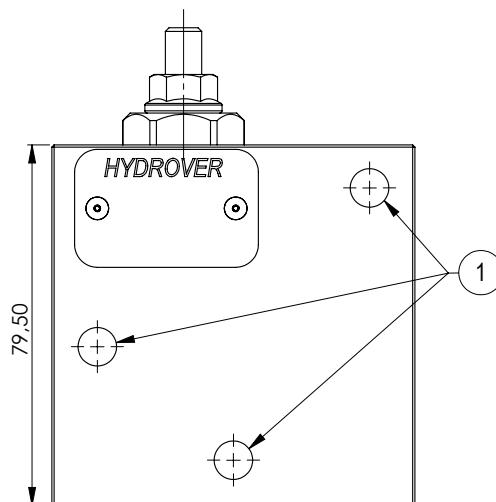
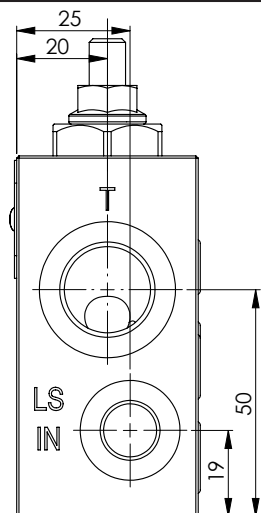
1 =	35-140 bar
2 =	70-280 bar
3 =	140-420 bar
3 =	35-350 bar (adj. knob)

**Relief valve
adjustment type ***

S =	Screw
K =	Knob

* Omit if not required. For example, to order the product without the relief cartridge valve, omit the pressure range and adjustment type options: H3208A.
The manifold will still be provided with the corresponding cavity.
To inhibit the relief valve, replace the related options with TL: H3208A-TL).
In the cavity it will be mounted a long plug.

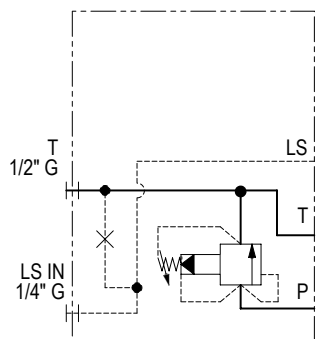
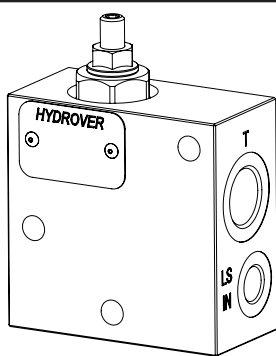
Valve	Cavity	Long plug code
Pressure relief valve VSPN-10A	CA-10A-2N	0489A200850000



Dimensions in mm

Technical data

Max. pressure	250 bar
Max. flow	90 lpm *
Weight	0,7 Kg
Manifold material	Aluminium
LS IN port	1/4" G
T port	1/2" G



N°	Description	Q.ty
1	Ø 8,5 through hole for tie rod	3
2	OR 2050 i. Ø 12,42 cross section 1,78 (P-T)	2
3	OR 2043 i. Ø 10,82 cross section 1,78 (LS)	1
4	OR 108 i. Ø 8,73 cross section 1,78	1

N°	Description	Q.ty
5	Bosch Rexroth relief valve VSPN-10A * depicted with screw adjustment	1
6	M8x13 for mounting	2

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue

Ordering code

H	3	2	1	4	A	-	-	-
---	---	---	---	---	---	---	---	---

Hydrover product

Product series

32 series - Load sensing modular
Cetop 3 subplates for parallel circuits

Product ID

Manifold material

Aluminium

**Relief valve
adjustment pressure range ***

- 1 = 35-140 bar
- 2 = 70-280 bar
- 3 = 140-420 bar
- 3 = 35-350 bar (adj. knob)

**Relief valve
adjustment type ***

- S = Screw
- K = Knob

Ordering code for assemblies with 1 to 3 intermediate subplates

H	K	V	M	8	X	_	_	_	-	3
---	---	---	---	---	---	---	---	---	---	---

Hydrover product

Product type
Kit

Kit type
Screw kit

Thread
M8

Screw quantity
3

Screw length for intermediate subplates quantity

100 =	1 subplate
150 =	2 subplates
200 =	3 subplates

Dimensions in mm

Ordering code for assemblies with 4 to 9 intermediate subplates

H	K	T	M	8	X	_	_	_	D	S	-	3
---	---	---	---	---	---	---	---	---	---	---	---	---

Hydrover product

Product type
Kit

Kit type
Tie rods

Thread
M8

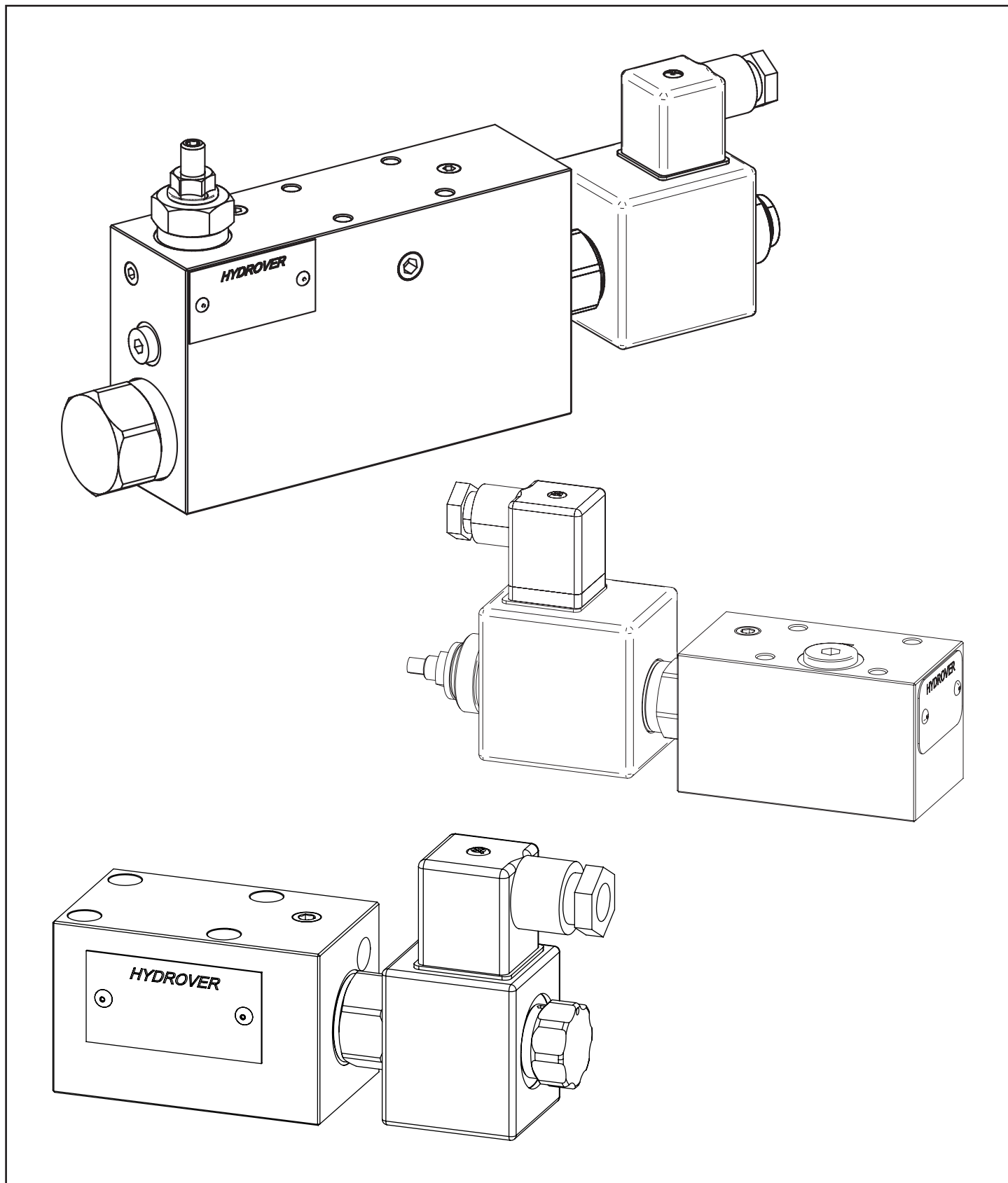
Tie rods quantity
3

Nut type
Standard

Tie rod length for intermediate subplates quantity

268 =	4 subplates
318 =	5 subplates
366 =	6 subplates
415 =	7 subplates
465 =	8 subplates
510 =	9 subplates

35 SERIES Cetop 3 valves



Cetop 3 pressure reducing valve inlet in A outlet to P

H3505

VRPR-10A

Dimensions in mm

VRPX-10A

Ordering code

H 3 5 0 5 A - - -

Hydrover product

Product series

35 series - Cetop 3 valves

Product ID

Manifold material

Aluminium

Pressure reducing valve type *

R = VRPR-10A (direct)
X = VRPX-10A (pilot)

VRPR-10A reducing valve pressure range (static) *

0 = 2-14 bar
1 = 2-25 bar
2 = 10-50 bar
3 = 28-80 bar

VRPX-10A reducing valve pressure range (static) *

0 = 25-100 bar
1 = 35-140 bar
2 = 70-280 bar
3 = 35-350 bar (adj. knob)

Reducing valve adjustment type *

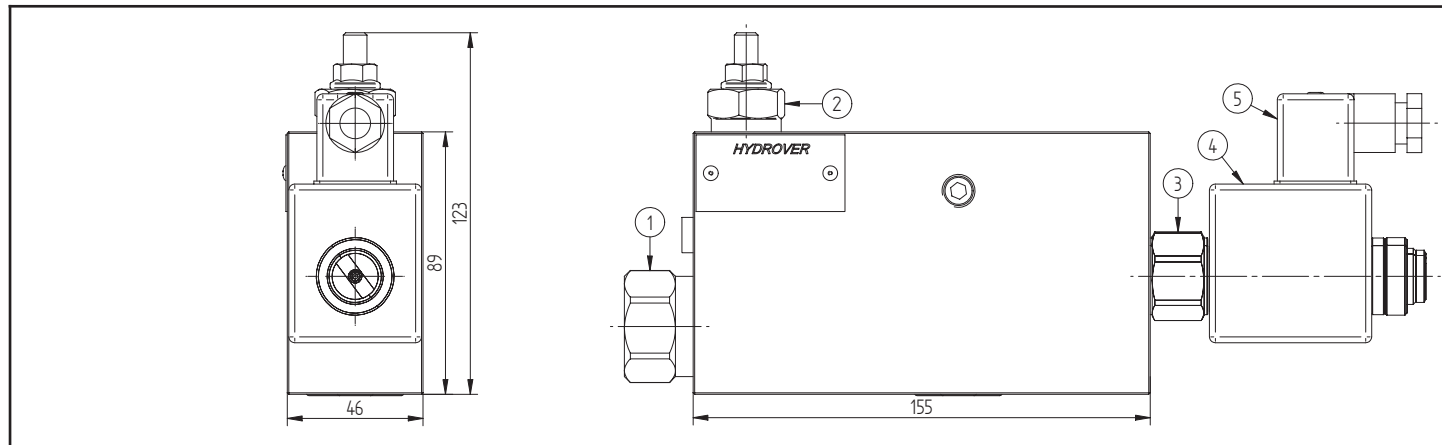
S = Screw
K = Knob

* Omit if not required. For example, to order the product without the pressure reducing cartridge valve, omit the valve type, pressure range and adjustment type options: H3505A.
The manifold will still be provided with the corresponding cavity.

N°	Description	Q.ty
1	Ø 5,5 through hole for mounting	4
2	OR 108 i. Ø 8,73 cross section 1,78	3
3	Bosch Rexroth reducing valve VRPR-10A o VRPX-10A * depicted with screw adjustment	1

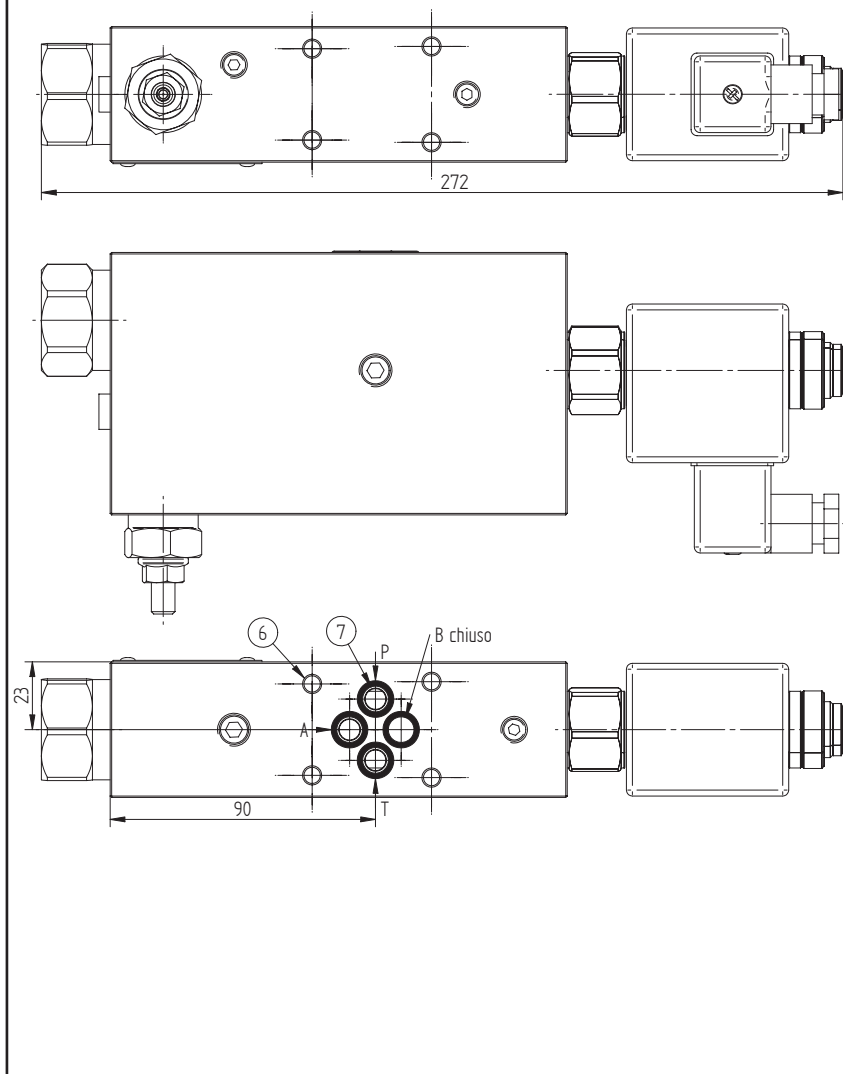
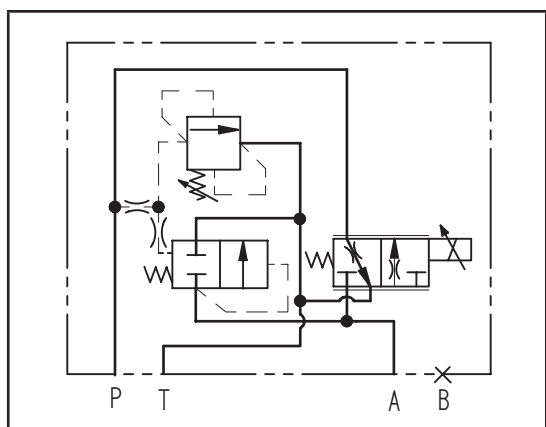
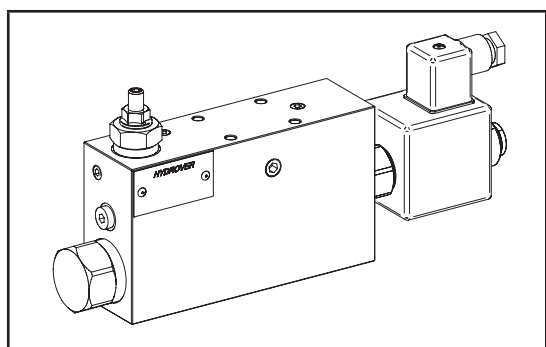
* for complete technical information, click on the blue link or go to the components section at the end of the catalogue

Technical data	
Max. pressure	250 bar
Max. flow with VRPR-10A	25 lpm *
Max. flow with VRPX-10A	55 lpm *
Weight	0,9 Kg
Manifold material	Aluminium



Dimensions in mm

Technical data	
Max. pressure	210 bar
Input max. flow	65 lpm
Weight	2,5 Kg
Manifold material	Aluminium



N°	Description	Q.ty
1	Pressure compensator	1
2	Bosch Rexroth relief valve VSN-08A *	1
3	Bosch Rexroth proportional solenoid valve VEP-5A-2Q-09 / OD.92.05.77-Y-Z *	1
4	Bosch Rexroth coil S5-356 - CLASS H DIN 43650 ISO 4400 *	1
5	Connector DIN 43650 ISO 4400	1
6	Ø 5,5 through hole for mounting	4
7	OR 108 i. Ø 8,73 cross section 1,78	4

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue

Ordering code

H 3 5 0 1 A _ _ _ - _ _ _ - _ _ _

Hydrover product

Product series

35 series - Cetop 3 valves

Product ID

Manifold material

Aluminium

Compensator spring

5.5 bar (standard) = 6
 12.5 bar = 1
 19 bar = 2

Relief valve adjustment type *

Screw = S
 Knob = K

Relief valve adjustment pressure range *

10-70 bar = 0
 35-140 bar = 1
 105-210 bar = 2
 175-350 bar = 3
 35-350 bar (adj. knob) = 3

Proportional solenoid valve coil connection *

1 = DIN 43650
 ISO 4400

Proportional solenoid valve coil voltage *

OB = 12V DC
 OC = 24V DC

Proportional solenoid valve max. flow *

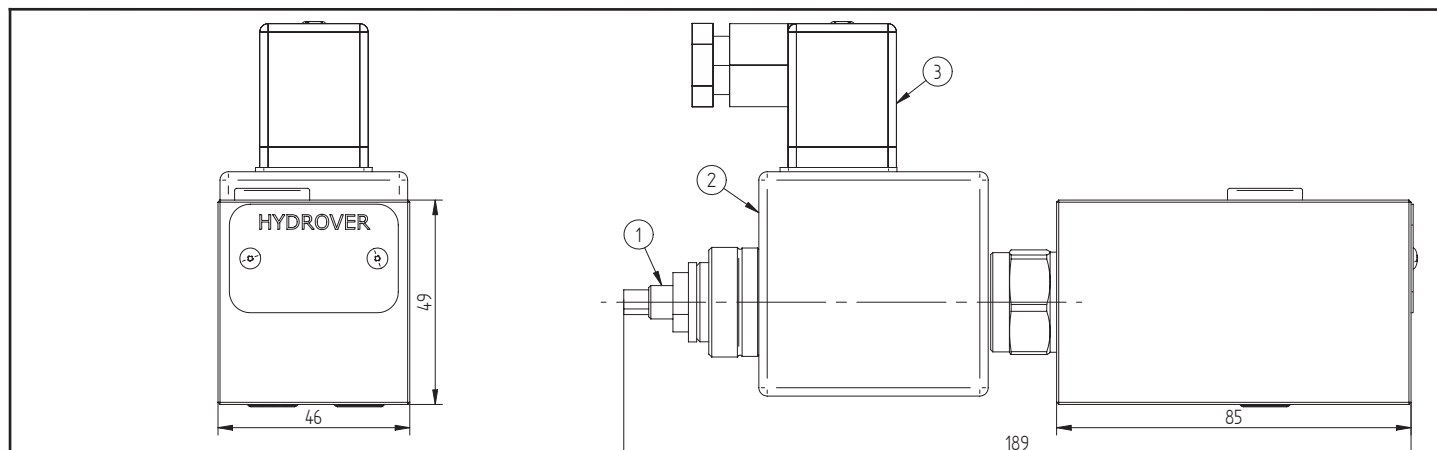
1 = 20 lpm
 2 = 30 lpm
 3 = 40 lpm

To evaluate the max. flow refer to **VEP-5A-2Q-09 / OD.92.05.77-Y-Z** proportional solenoid valve catalogue and to the compensator spring.

Proportional solenoid valve manual override *

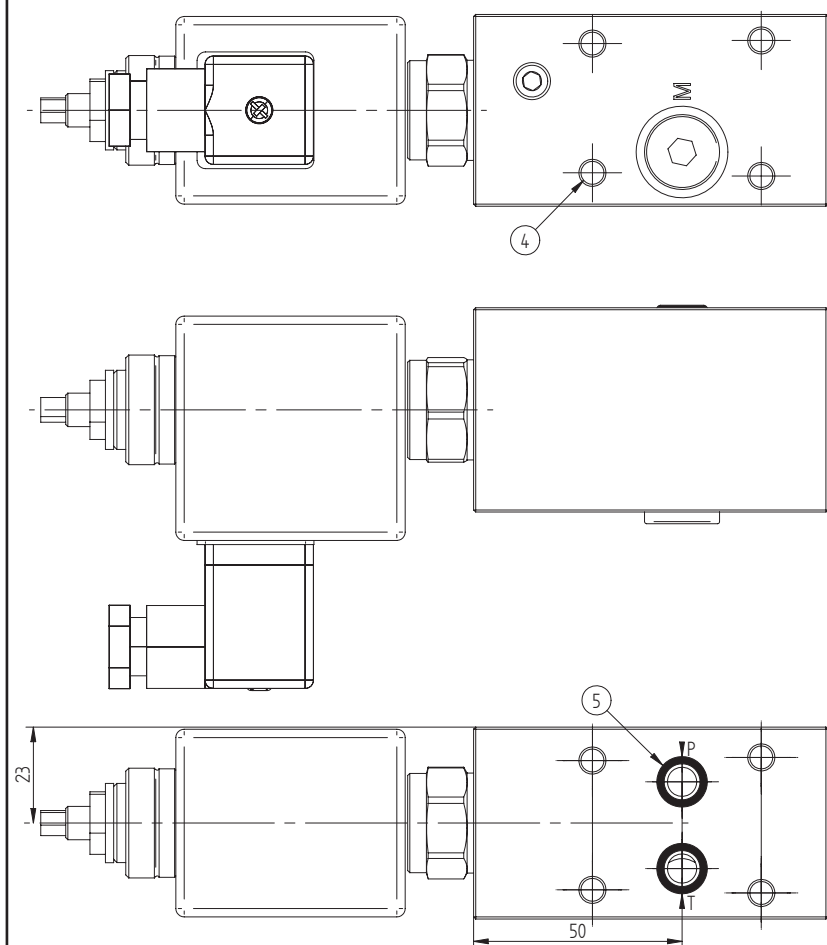
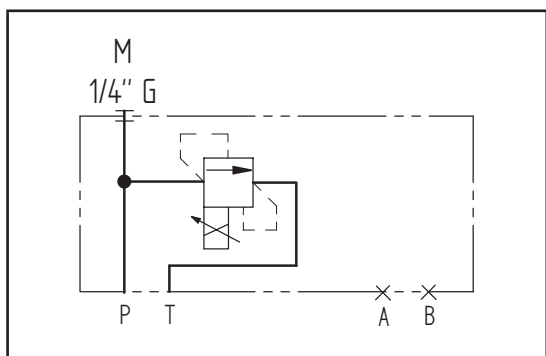
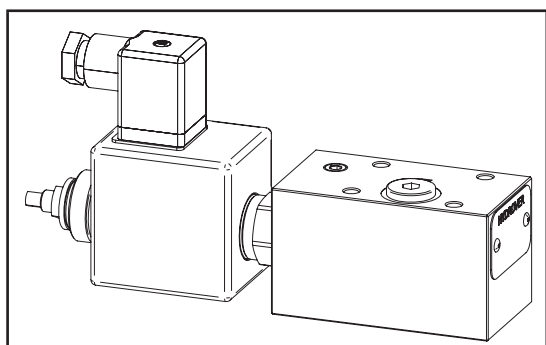
E0 = Without
 EV = Screw

* Omit if not required. For example, to order the product without the proportional solenoid cartridge valve, omit the manual override, max. flow, coil voltage and coil connection options: H3501A6S2.
 The manifold will still be provided with the corresponding cavity.



Dimensions in mm

Technical data	
Max. pressure	350 bar
Input max. flow	2 lpm *
Weight	1,7 Kg
Manifold material	Steel
M port	1/4" G



N°	Description	Q.ty
1	Bosch Rexroth proportional solenoid valve VEP-5B-2S-D / OD.94.01.18-Y-Z * as depicted with screw manual override	1
2	Bosch Rexroth coil S5-356 - CLASS H DIN 43650 ISO 4400 *	1
3	Connector DIN 43650 ISO 4400	1
4	Ø 5,5 through hole for mounting	4
5	OR 108 i. Ø 8,73 cross section 1,78	2

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue

Ordering code

H	3	5	0	2	S	-	_	_	_	-	_	_	_
---	---	---	---	---	---	---	---	---	---	---	---	---	---

Hydrover product

Product series

35 series - Cetop 3 valves

Product ID

Manifold material

Steel

Proportional solenoid valve manual override *

Without

= E0

Screw (standard)

= EV

Proportional solenoid valve coil connection *

1 = DIN 43650 ISO 4400

Proportional solenoid valve coil voltage *

OB = 12V DC

OC = 24V DC

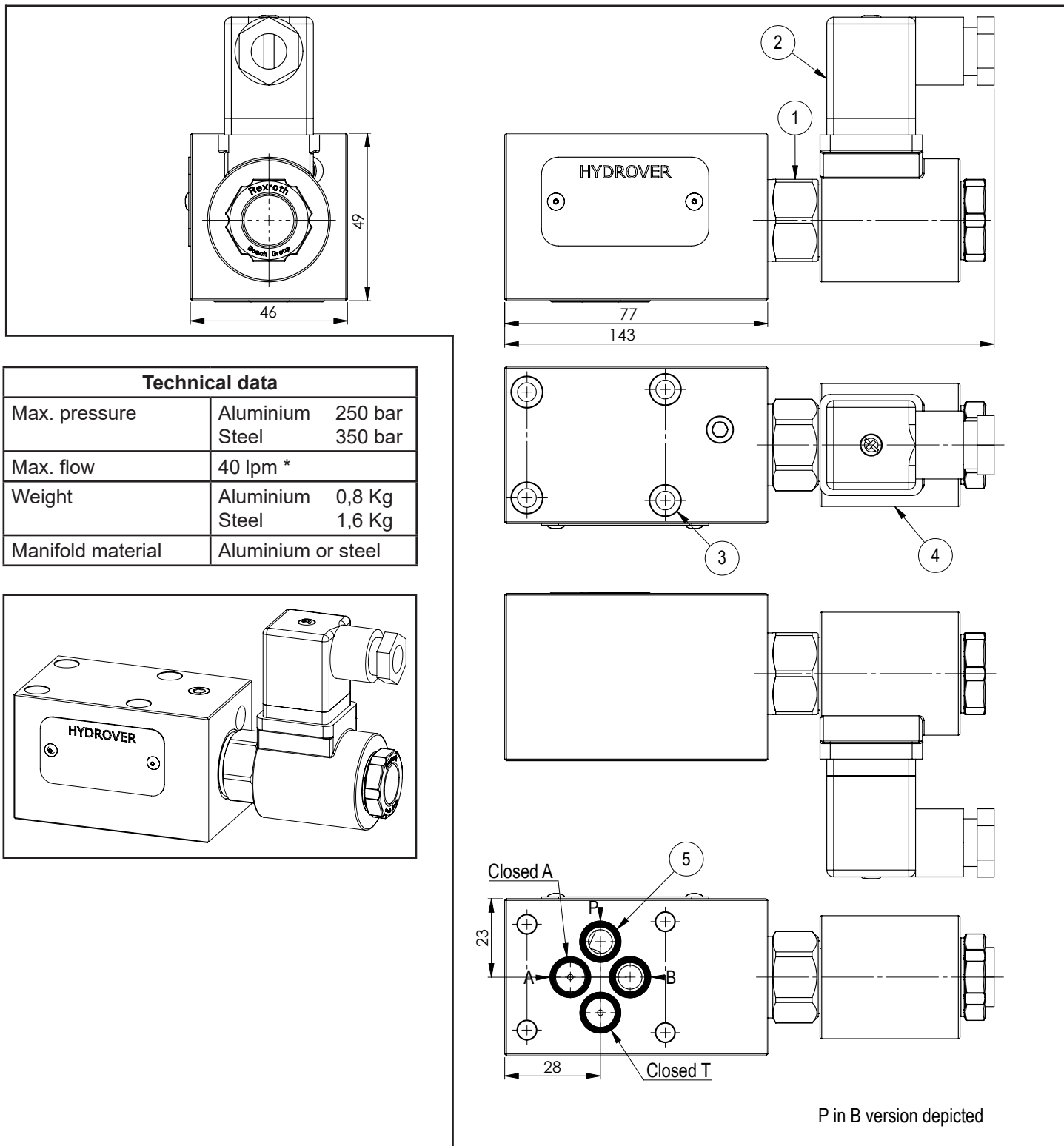
Proportional solenoid valve pressure adjustment range *

1 = 15-140 bar

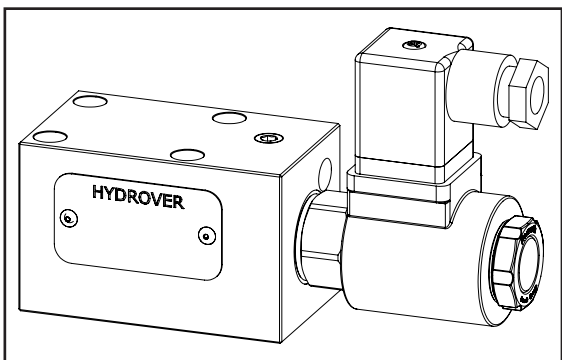
2 = 30-250 bar

3 = 30-350 bar

* Omit if not required. For example, to order the product without the proportional solenoid cartridge valve, omit the manual override, pressure range, coil voltage and coil connection options: H3502S.
The manifold will still be provided with the corresponding cavity.



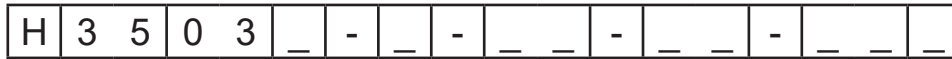
Technical data		
Max. pressure	Aluminium	250 bar
	Steel	350 bar
Max. flow	40 lpm *	
Weight	Aluminium	0,8 Kg
	Steel	1,6 Kg
Manifold material	Aluminium or steel	



N°	Description	Q.ty
1	Bosch Rexroth solenoid valve VEI-16-08A-NC OD.15-X-18-Y-000000 (normally closed) or VEI-16-08A-NA OD.15-X-18-Y-000000 (normally open) depicted without manual override *	1
2	Connector DIN 43650 ISO 4400	1
3	Ø 5,5 through hole with counterbore for mounting	4
4	Bosch Rexroth coil D36 - CLASS H DIN 43650 ISO 4400 *	1
5	OR 108 i. Ø 8,73 cross section 1,78	4

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue

Ordering code



Hydrover product

Product series

35 series - Cetop 3 valves

Product ID

Manifold material

Aluminium

= A

Steel

= S

In A or B

In A

= A

In B

= B

Solenoid valve spool type *

Normally open

= NA

Normally closed

= NC

Normally open double lock

= 2A

Normally closed double lock

= 2C

Solenoid valve coil connection *

1 = DIN 43650 ISO 4400

Solenoid valve coil voltage *

OB = 12V DC

OC = 24V DC

OD = 48V DC

OU = 110V RAC

AH = 230V RAC

Solenoid valve manual override *

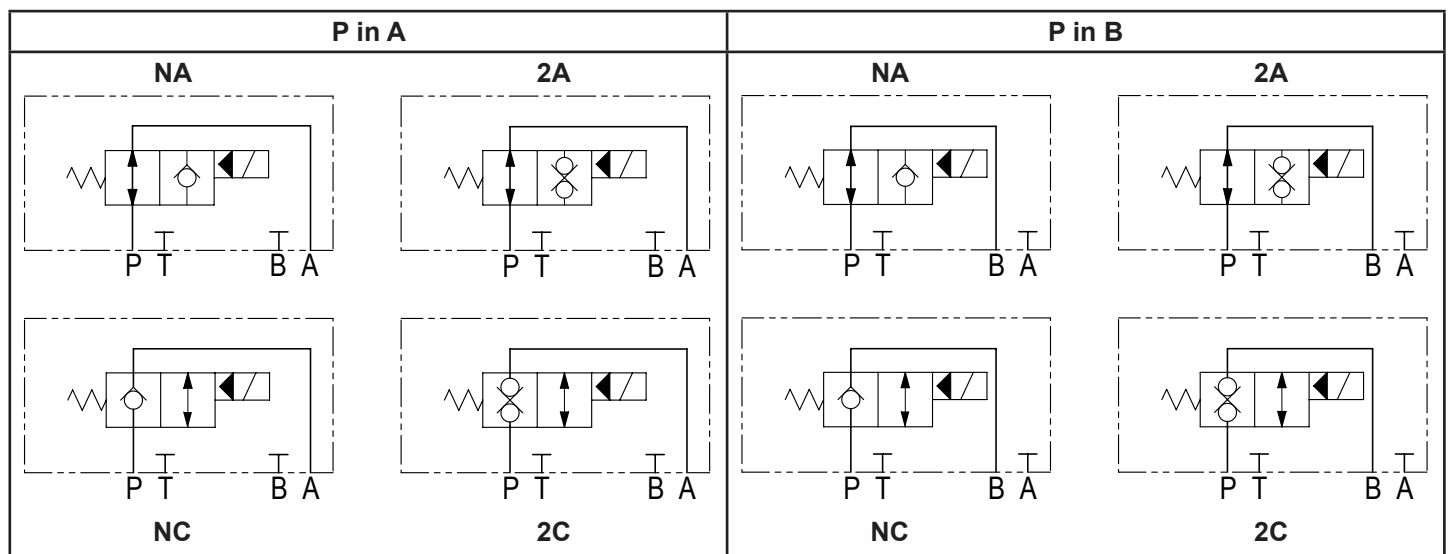
E0 = Without

EP = Push (_A)

EV = Screw (_C)

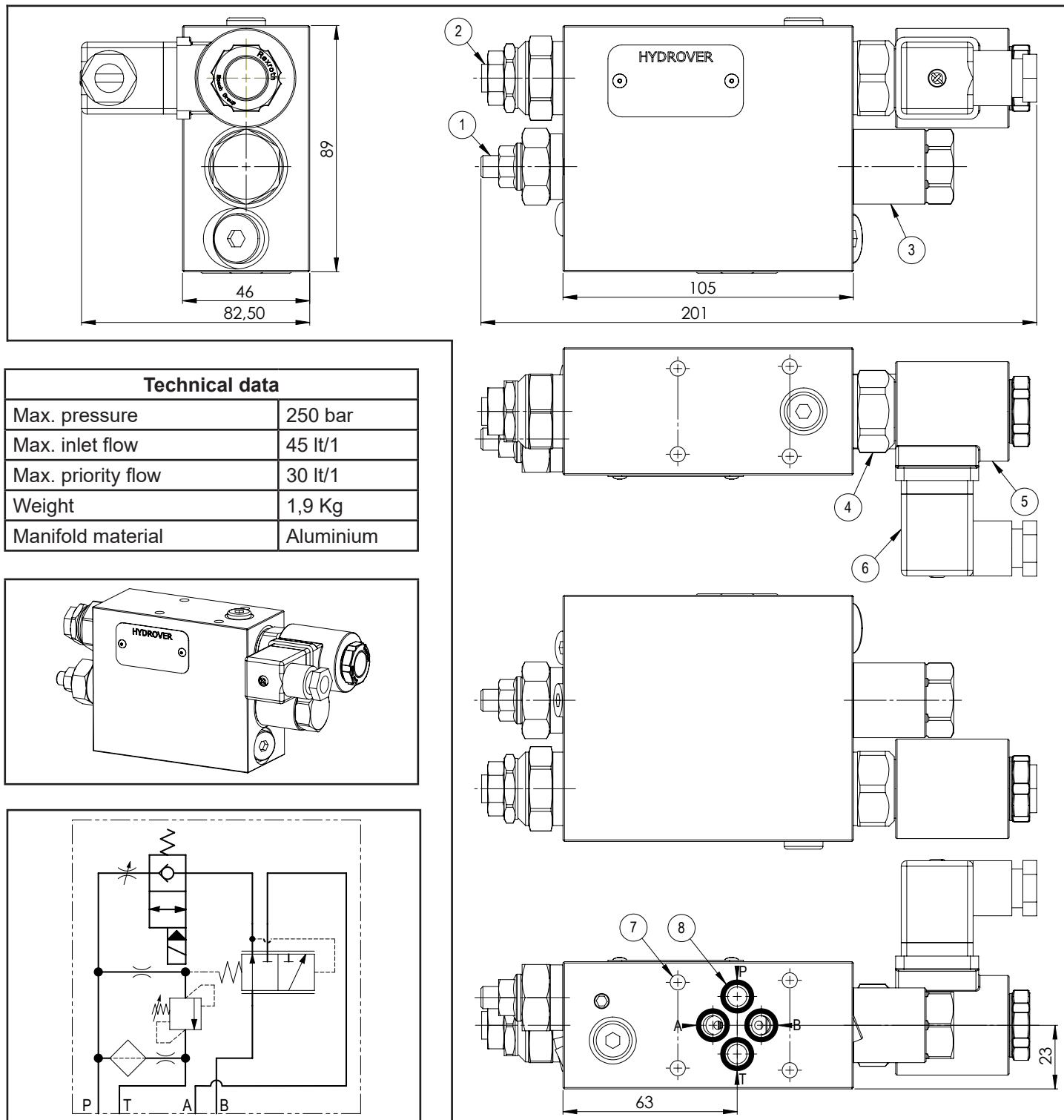
EG = Push and twist (_A)

* Omit if not required. For example, to order the product without the solenoid cartridge valve coil, omit the coil voltage and coil connection options: H3503A-A-NC-E0.



Valve with priority flow function
inlet in B / non priority output in A with relief valve

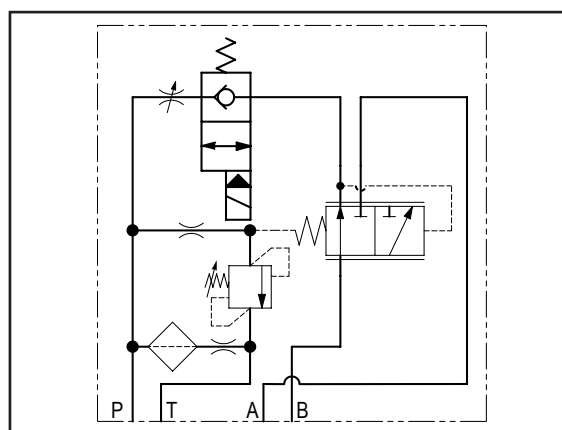
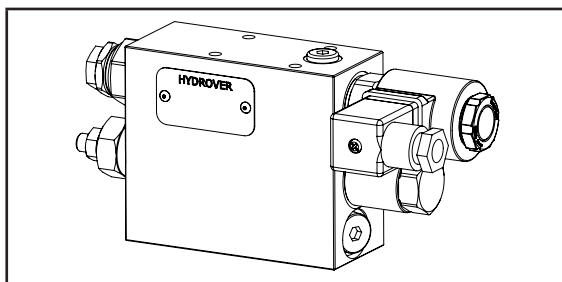
H3506



Dimensions in mm

Technical data

Max. pressure	250 bar
Max. inlet flow	45 lt/1
Max. priority flow	30 lt/1
Weight	1,9 Kg
Manifold material	Aluminium



N°	Description	Q.ty
1	Bosch Rexroth bidirectional flow restrictor OD.21.01-X-36 depicted with screw adjustment *	1
2	Bosch Rexroth relief valve VSN-08A *	1
3	Logic element Bosch Rexroth VRLA-10A-S *	1
4	Bosch Rexroth solenoid valve OD.15.05.36-Y-000000 depicted without manual override *	1
5	Bosch Rexroth coil D36 - CLASS H DIN 43650 ISO 4400 *	1
6	Connector DIN 43650 ISO 4400	1
7	Ø 5,5 through hole with counterbore for mounting	4
8	OR 108 i. Ø 8,73 cross section 1,78	4

* per caratteristiche tecniche complete cliccare sul collegamento blu o consultare a fine catalogo la sezione componenti

Ordering code

H 3 5 0 6 A _ _ Q _ _ - _ _ - _ _

Hydrover product

Product series

35 series - Cetop 3 valves

Product ID

Manifold material

Aluminium

Logic element spring

5,5 bar

= 5

10 bar

= 1

Restrictor adjustment type

Screw

= S

Knob

= K

Relief valve adjustment type *

Screw

= S

Knob

= K

Solenoid valve coil connection *

1 = DIN 43650 ISO 4400

Solenoid valve coil voltage *

OB = 12V DC
 OC = 24V DC
 OD = 48V DC
 OU = 110V RAC
 AH = 230V RAC

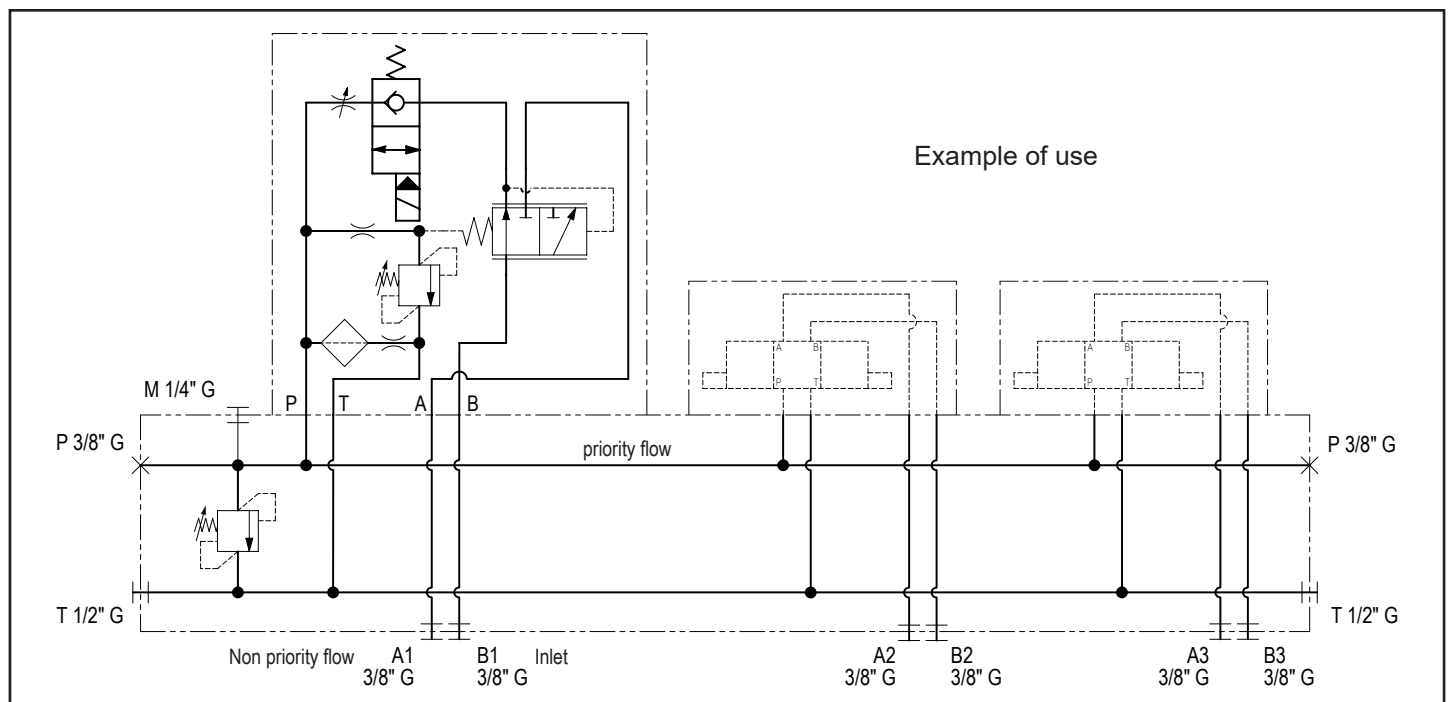
Solenoid valve manual override *

E0 = Without
 EV = Screw

Relief valve adjustment pressure range *

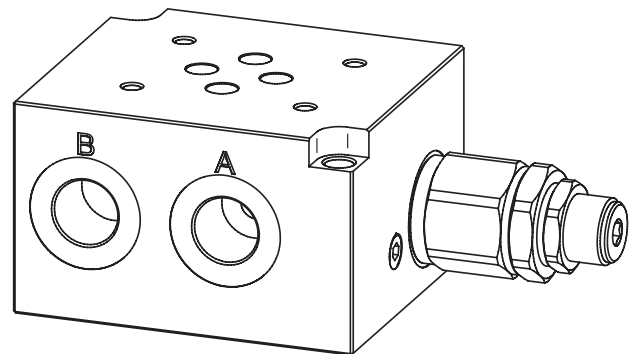
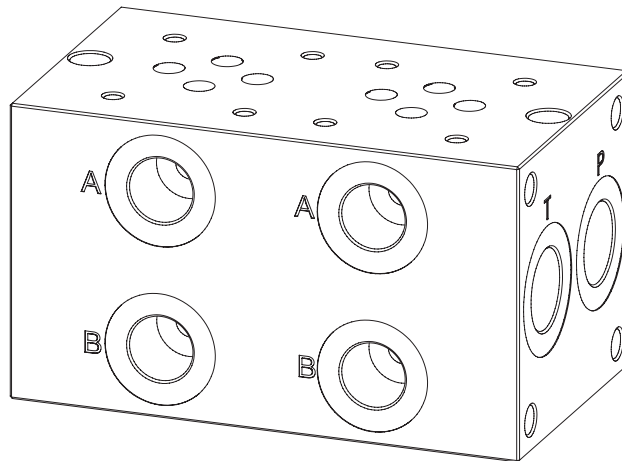
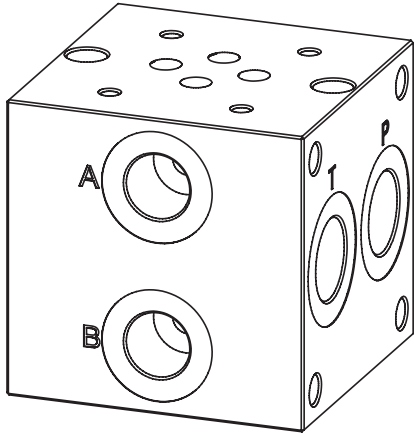
0 = 10-70 bar
 1 = 35-140 bar
 2 = 105-210 bar
 3 = 175-350 bar
 3 = 35-350 bar (knob reg.)

* Omit if not required. For example, to order the product without the solenoid cartridge valve coil, omit the coil voltage and coil connection options: H3506A5SQ-S2-E0.

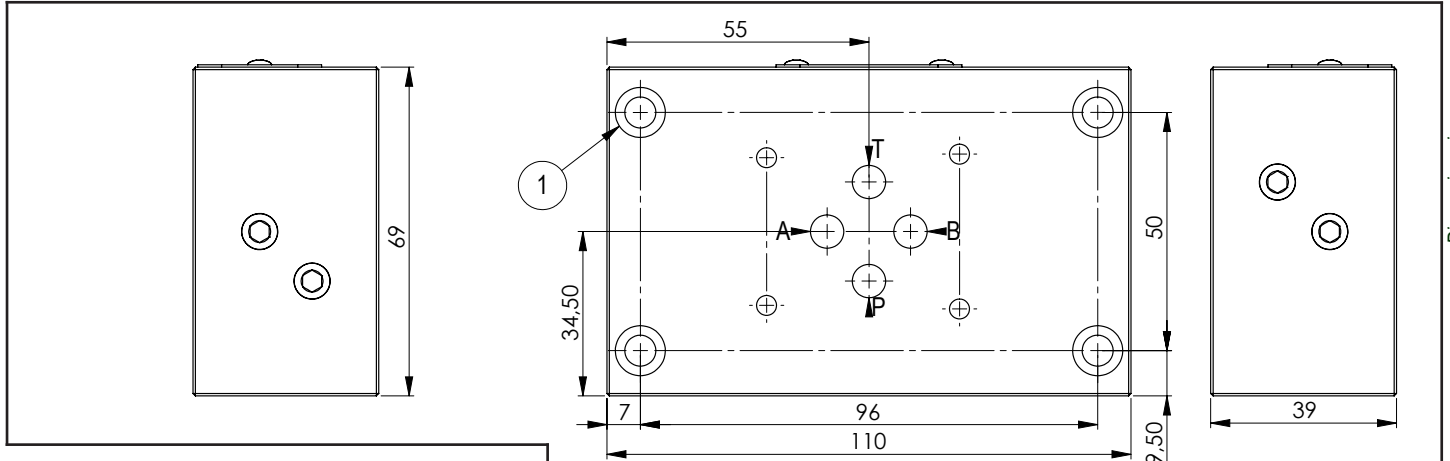


SERIE 36

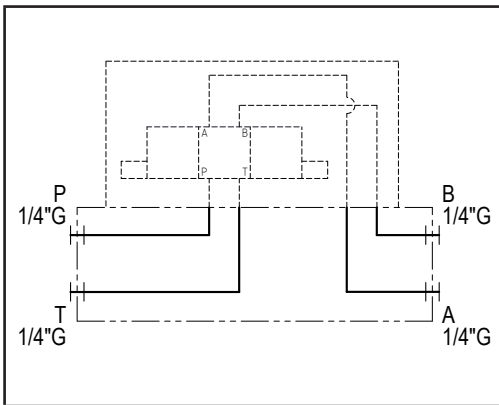
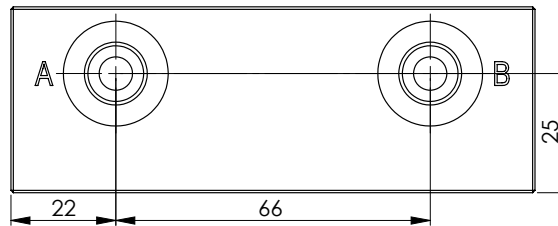
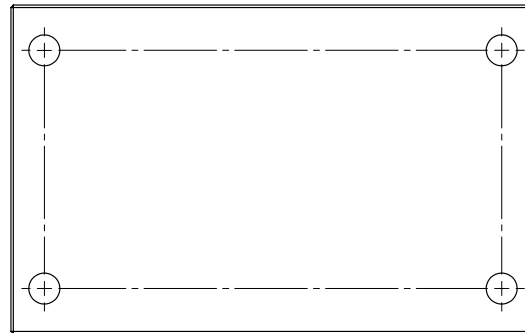
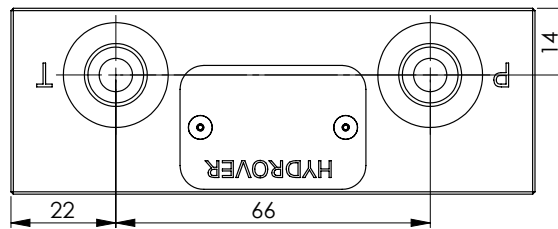
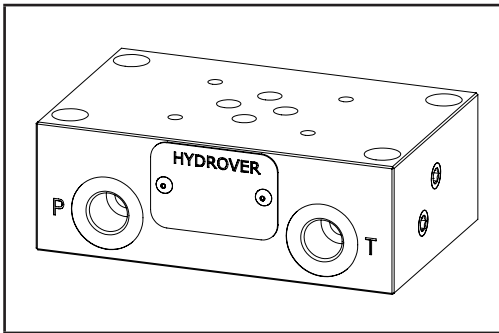
Cetop 3 subplates



Dimensions in mm



Technical data	
Max. pressure	250 bar
Weight	0,8 Kg
Manifold material	Aluminium
P / T / A / B ports	1/4" G



N°	Description	Q.ty
1	Ø 6,5 through hole for mounting with counterbore	4



Ordering code

H	3	6	3	6	A
---	---	---	---	---	---

Hydrover product

Product series

36 series - Cetop 3 subplates

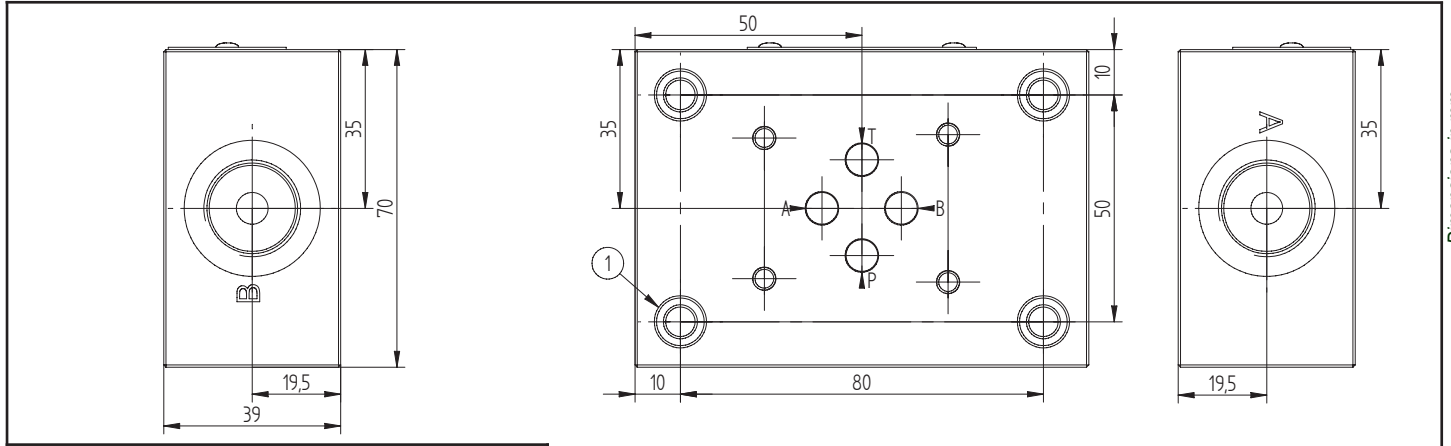
Product ID

Manifold material

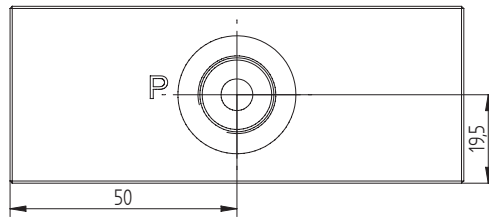
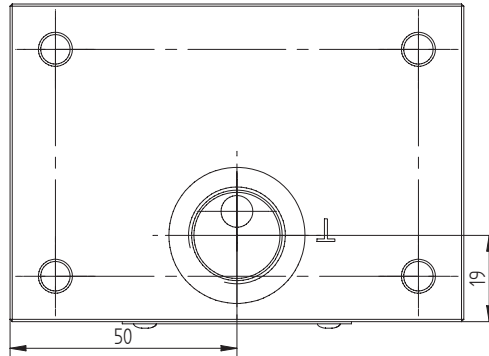
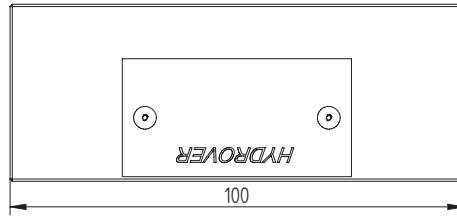
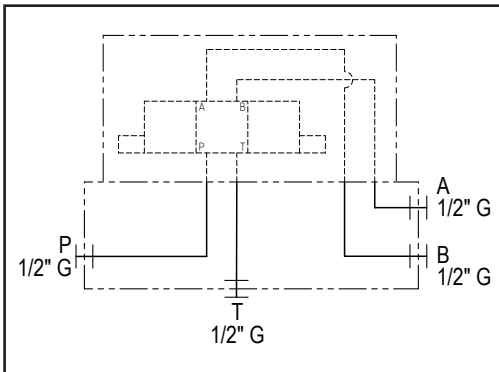
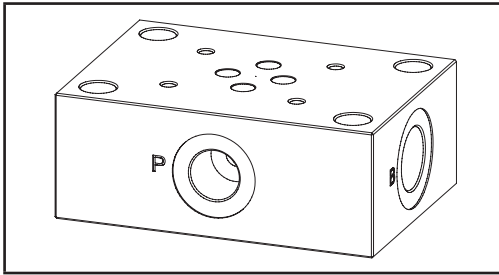
Aluminium

Cetop 3 single station subplate / side P-A-B ports / back T port **H3607**

Dimensions in mm



Technical data	
Max. pressure	250 bar
Weight	0,7 Kg
Manifold material	Aluminium
P port	3/8" G
T / A / B ports	1/2" G



N°	Description	Q.ty
1	Ø 6,5 through hole for mounting with counterbore	4



Ordering code

H	3	6	0	7	A
---	---	---	---	---	---

Hydrover product

Product series

36 series - Cetop 3 subplates

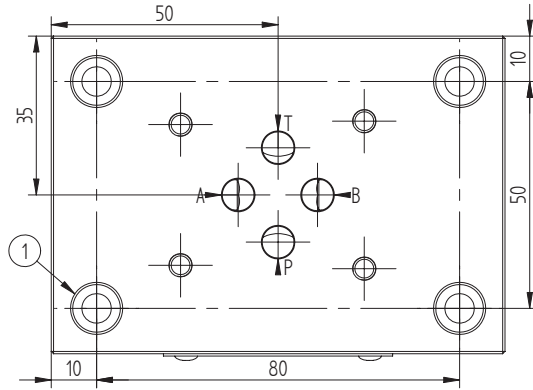
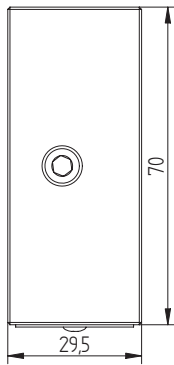
Product ID

Manifold material

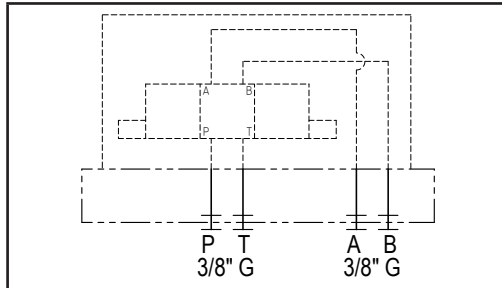
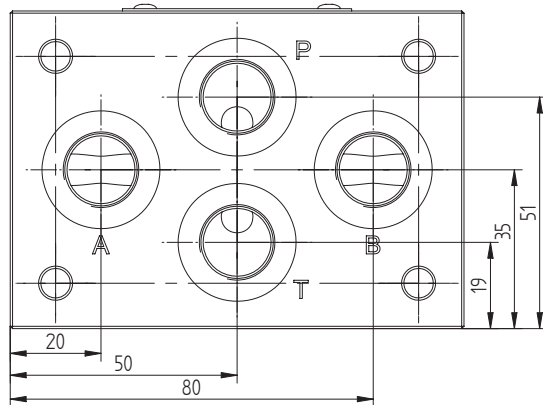
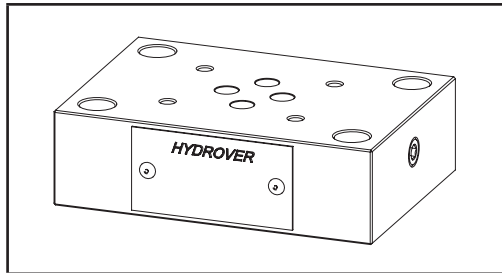
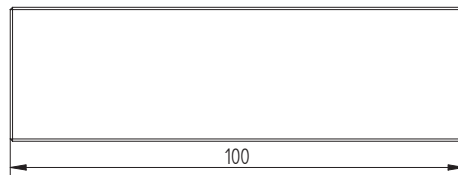
Aluminium

Cetop 3 single station subplate / back P-T-A-B ports **H3609**

Dimensions in mm



Technical data	
Max. pressure	250 bar
Weight	0,6 Kg
Manifold material	Aluminium
P / T / A / B ports	3/8" G



N°	Description	Q.ty
1	Ø 6,5 through hole for mounting with counterbore	4

H3609

Ordering code

H	3	6	0	9	A
---	---	---	---	---	---

Hydrover product

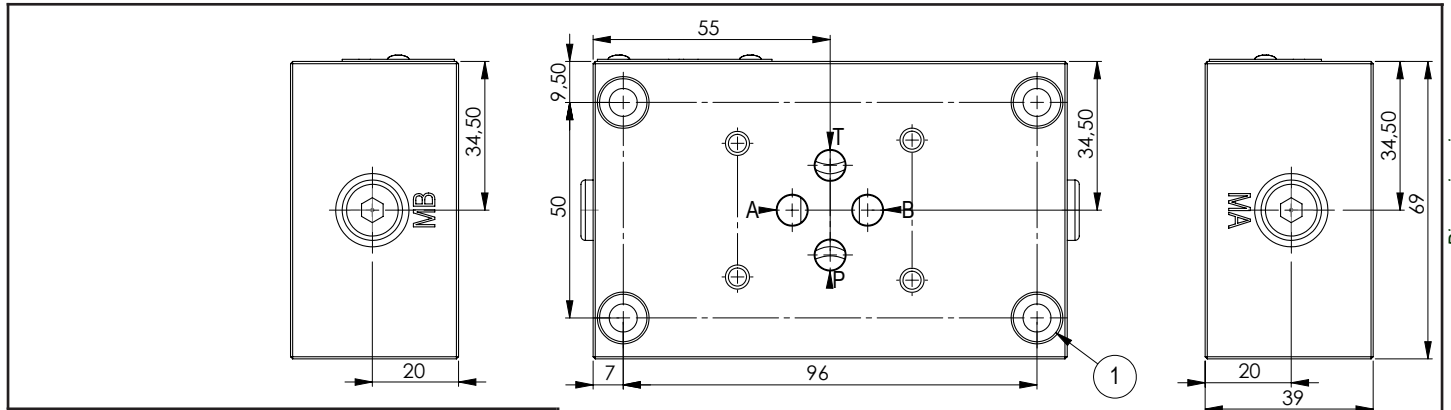
Product series

36 series - Cetop 3 subplates

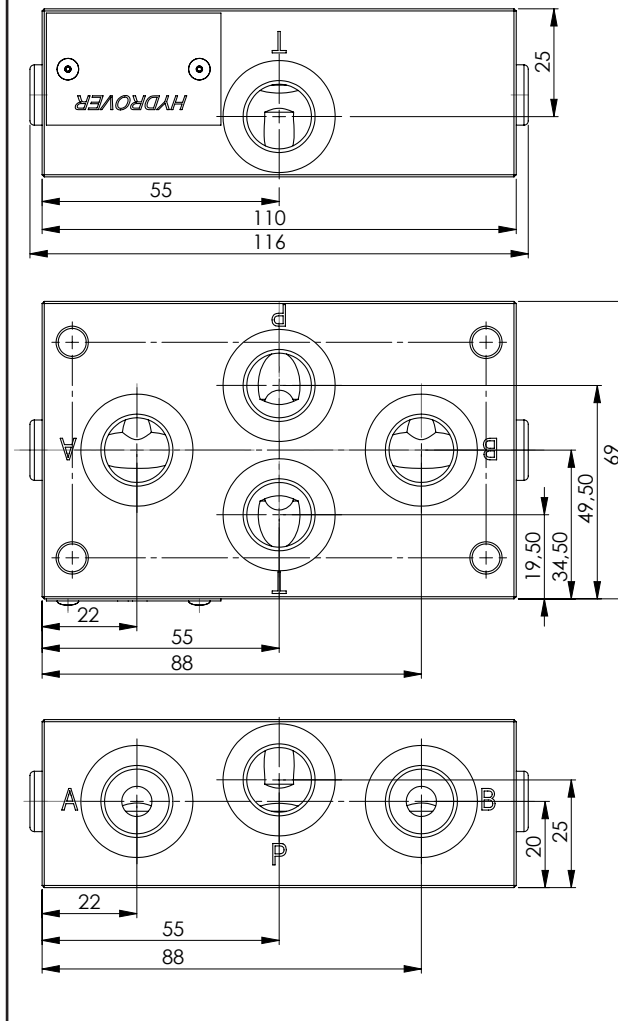
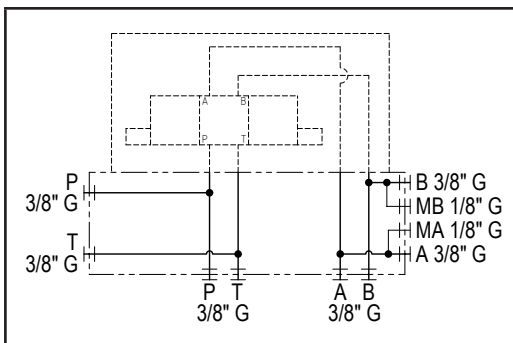
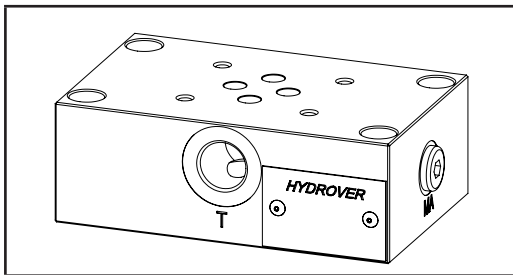
Product ID

Manifold material

Aluminium



Technical data	
Max. pressure	Aluminium 250 bar Steel 350 bar
Weight	Aluminium 0,7 Kg Steel 2 Kg
Manifold material	Aluminium or steel
MA / MB ports	1/8" G
P / T / A / B ports	3/8" G



N°	Description	Q.ty
1	Ø 6,5 through hole for mounting with counterbore	4

H3611

Ordering code

H	3	6	1	1	_
---	---	---	---	---	---

Hydrover product

Product series

36 series - Cetop 3 subplates

Product ID

Manifold material

Aluminium

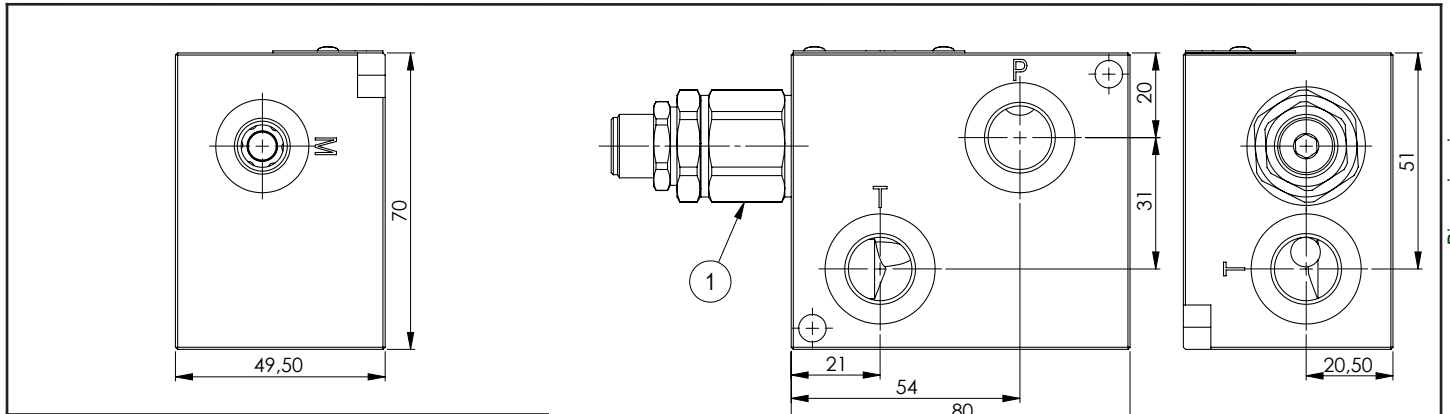
Steel

A=

S=

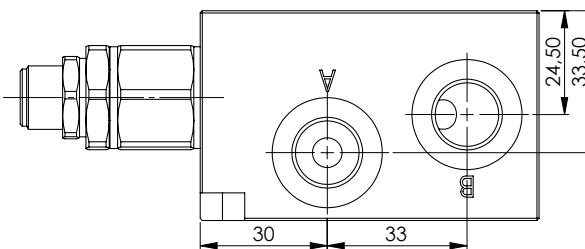
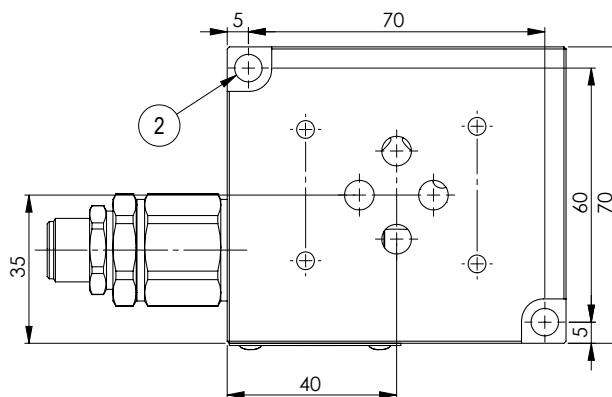
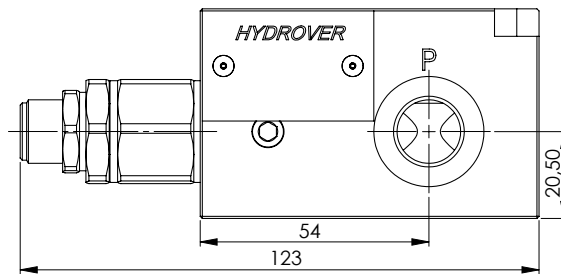
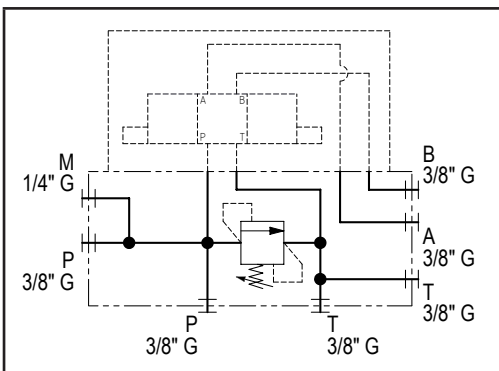
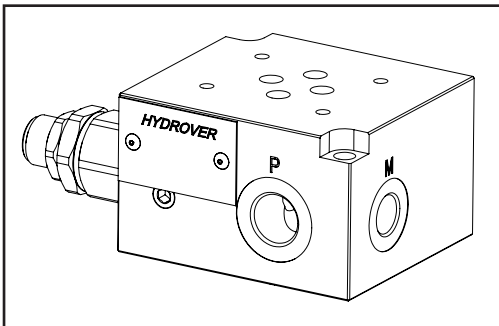
Cetop 3 single station subplate / relief valve
back and side P-T ports / side A-B ports / 25 lpm

H3602



Dimensions in mm

Technical data	
Max. pressure	250 bar
Max. flow	25 lpm *
Weight	0,9 Kg
Manifold material	Aluminium
M port	1/4" G
P / T / A / B ports	3/8" G



N°	Description	Q.ty
1	Bosch Rexroth relief valve VMD1.025 *	1
2	Ø 6,5 through hole for mounting blocco	2

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue

Ordering code

H	3	6	0	2	A	-	-	-
---	---	---	---	---	---	---	---	---

Hydrover product

Product series

36 series - Cetop 3 subplates

Product ID

Relief valve adjustment pressure range *

- 1= 25-120 bar
- 2= 40-200 bar
- 3= 200-350 bar

Relief valve adjustment type *

S = Screw

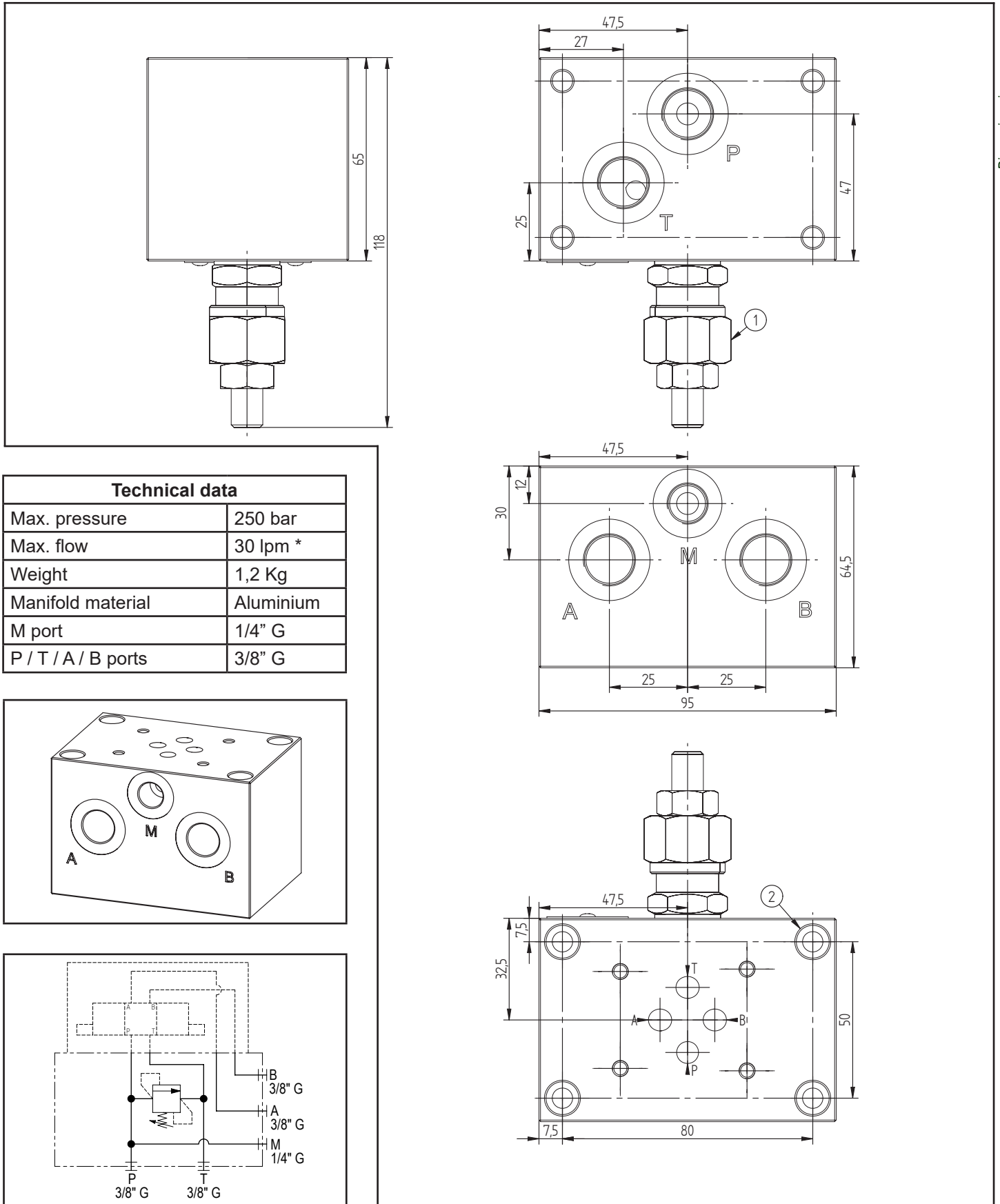
Manifold material
Aluminium

* Omit if not required. For example, to order the product without the relief cartridge valve, omit the pressure range and adjustment type options: H3602A.
 The manifold will still be provided with the corresponding cavity.
 To inhibit the relief valve, replace the related options with TL: H3602A-TL.
 In the cavity it will be mounted a long plug.

Valve	Cavity	Long plug code
Pressure relief valve VMD1.025	VMD1.025	R-800-016

Cetop 3 single station subplate / relief valve
back P-T ports / side A-B ports / 30 lpm

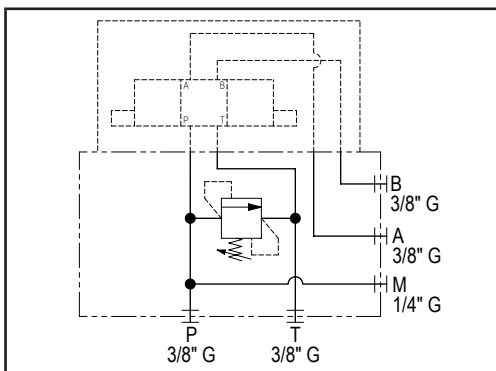
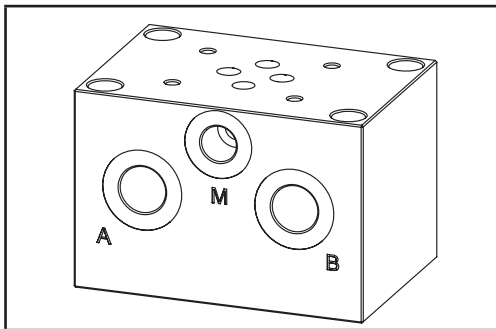
H3606



Dimensions in mm

Technical data

Max. pressure	250 bar
Max. flow	30 lpm *
Weight	1,2 Kg
Manifold material	Aluminium
M port	1/4" G
P / T / A / B ports	3/8" G



N°	Description	Q.ty
1	Bosch Rexroth relief valve VS-30 *	1
2	Ø 6,5 through hole for mounting with counterbore	4

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue



Ordering code

H	3	6	0	6	A	-	_	_
---	---	---	---	---	---	---	---	---

Hydrover product

Product series

36 series - Cetop 3 subplates

Product ID

Relief valve adjustment pressure range *

- 0 = 5-50 bar
- 1 = 30-100 bar
- 2 = 50-210 bar
- 3 = 100-350 bar

Relief valve adjustment type *

- S = Screw
- K = Knob

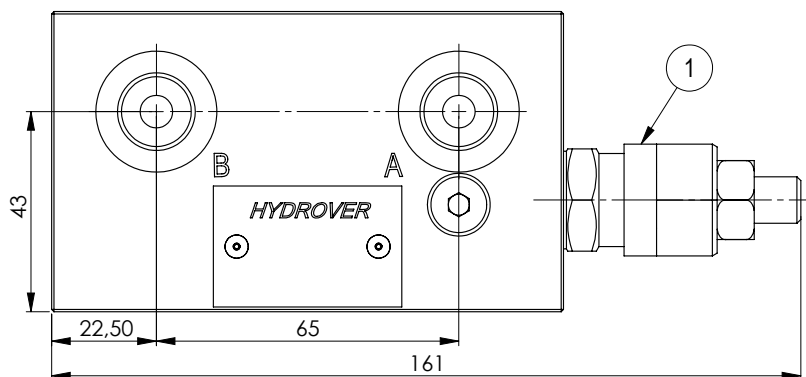
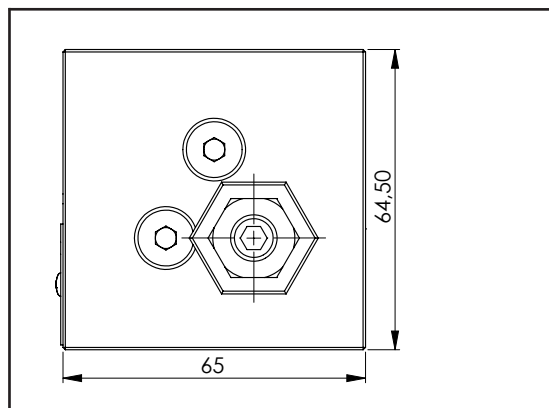
Manifold material
Aluminium

* Omit if not required. For example, to order the product without the relief cartridge valve, omit the pressure range and adjustment type options: H3606A.
 The manifold will still be provided with the corresponding cavity.
 To inhibit the relief valve, replace the related options with TL: H3606A-TL.
 In the cavity it will be mounted a long plug.

Valve	Cavity	Long plug code
Pressure relief valve VS-30	008	D8TVMDC

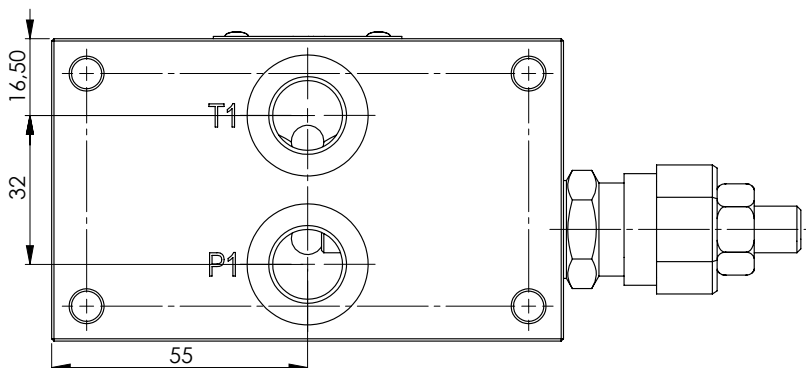
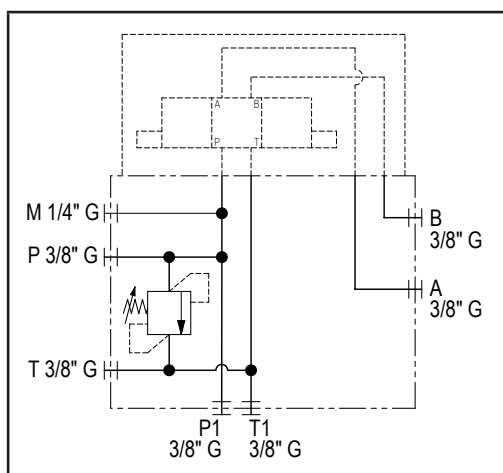
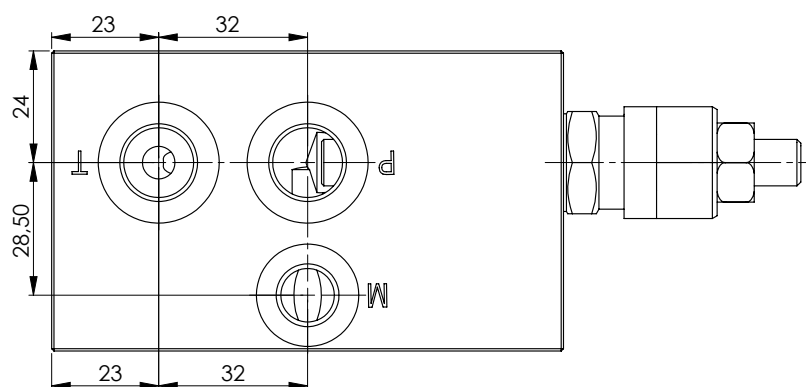
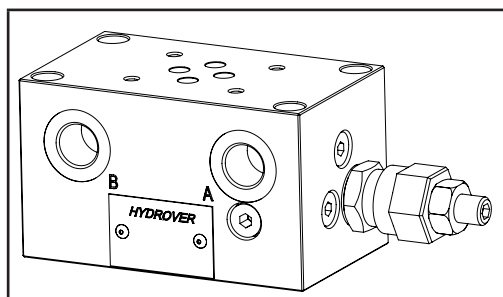
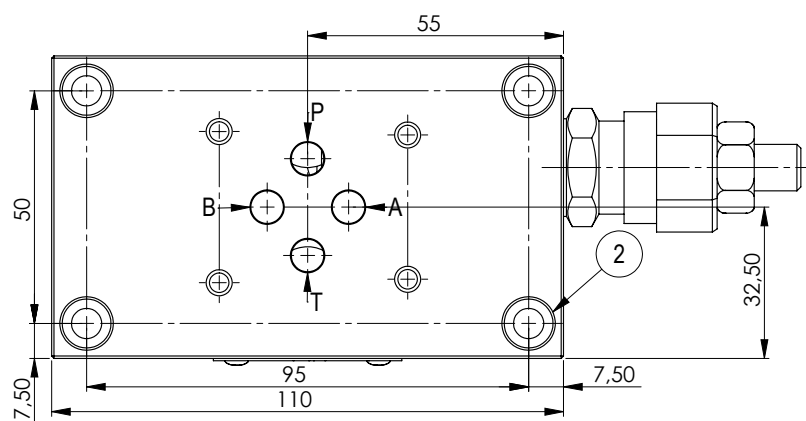
Cetop 3 single station subplate / relief valve
back and side P-T ports / side A-B ports / 30 lpm

H3619



Dimensions in mm

Technical data	
Max. pressure	250 bar
Max. flow	30 lpm *
Weight	1,3 Kg
Manifold material	Aluminium
M port	1/4" G
P / T / A / B ports	3/8" G



N°	Description	Q.ty
1	Bosch Rexroth relief valve VS-30 *	1
2	Ø 6,5 through hole for mounting with counterbore	4

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue

Ordering code

H	3	6	1	9	A	-	-	-
---	---	---	---	---	---	---	---	---

Hydrover product

Product series

36 series - Cetop 3 subplates

Product ID

Relief valve adjustment pressure range *

- 0 = 5-50 bar
- 1 = 30-100 bar
- 2 = 50-210 bar
- 3 = 100-350 bar

Relief valve adjustment type *

- S = Screw
- K = Knob

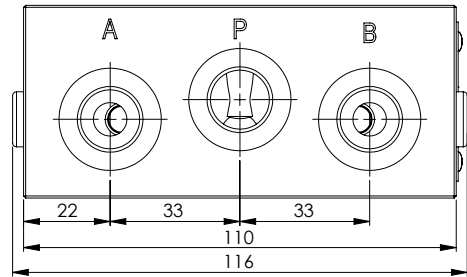
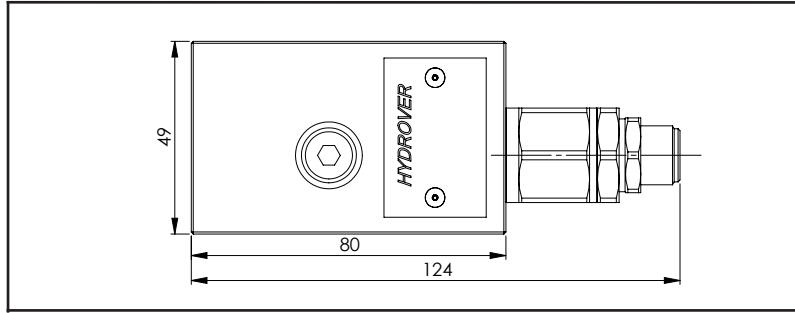
Manifold material
Aluminium

* Omit if not required. For example, to order the product without the relief cartridge valve, omit the pressure range and adjustment type options: H3619A.
The manifold will still be provided with the corresponding cavity.
To inhibit the relief valve, replace the related options with TL: H3619A-TL.
In the cavity it will be mounted a long plug.

Valve	Cavity	Long plug code
Pressure relief valve VS-30	008	D8TVMDC

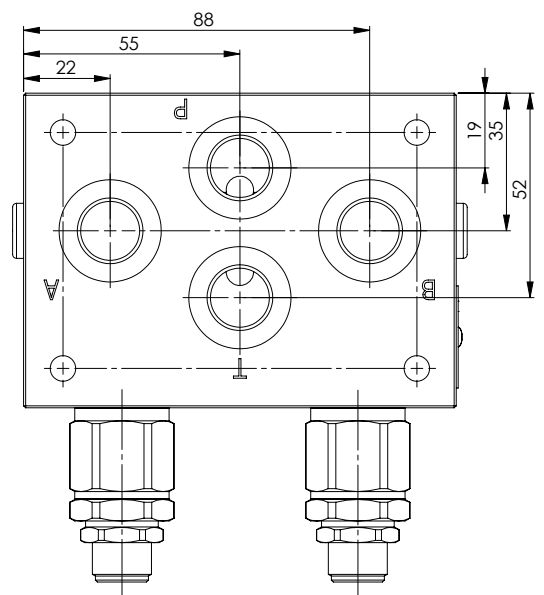
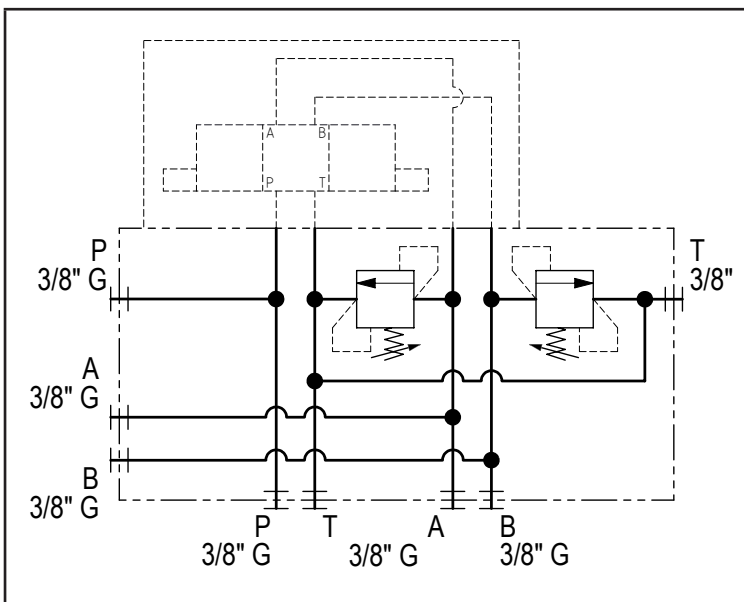
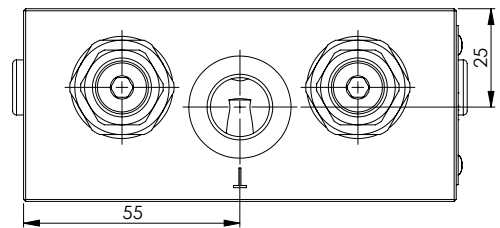
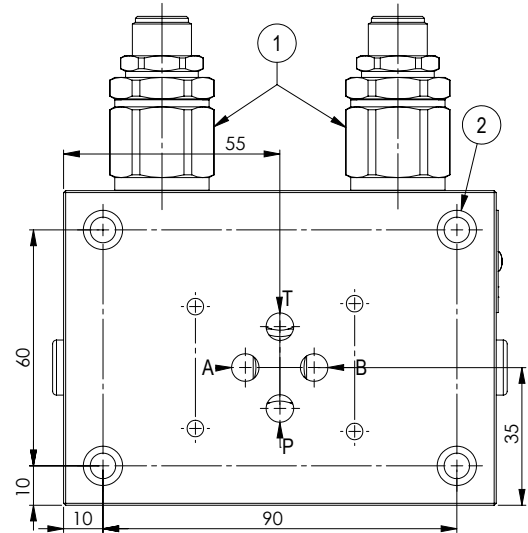
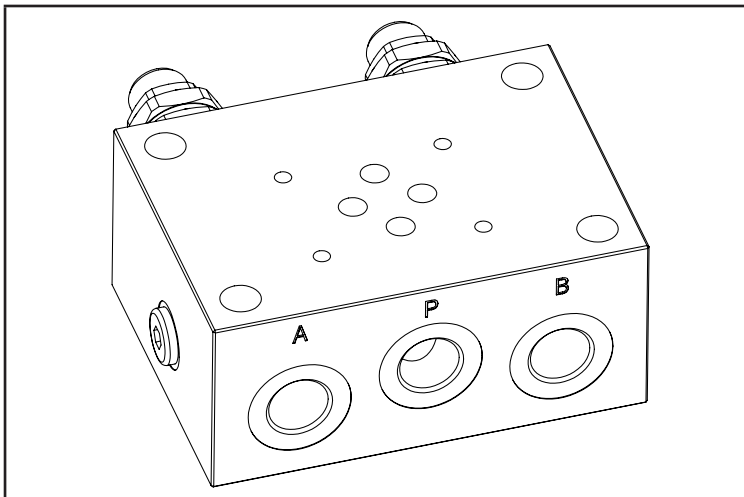
Cetop 3 single station subplate / relief valve on A and B back and side P-T-A-B ports / 25 lpm

H3623



Dimensions in mm

Technical data	
Max. pressure	350 bar
Max. flow	25 lpm *
Weight	3,2 Kg
Manifold material	Steel
P / T / A / B back and side ports	3/8" G



N°	Description	Q.ty
1	Bosch Rexroth relief valve VMD1.025 *	2
2	Ø 6,5 through hole for mounting blocco	2

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue

Ordering code

H	3	6	2	3	A	-	-	-	-	-
---	---	---	---	---	---	---	---	---	---	---

Hydrover product

Product series

36 series - Cetop 3 subplates

Product ID

Manifold material

Aluminium

Relief valve adjustment pressure range on B *

- 1= 25-120 bar
- 2= 40-200 bar
- 3= 200-350 bar

Relief valve adjustment type on B *

S = Screw

Relief valve adjustment pressure range on A *

- 1= 25-120 bar
- 2= 40-200 bar
- 3= 200-350 bar

Relief valve adjustment type on A *

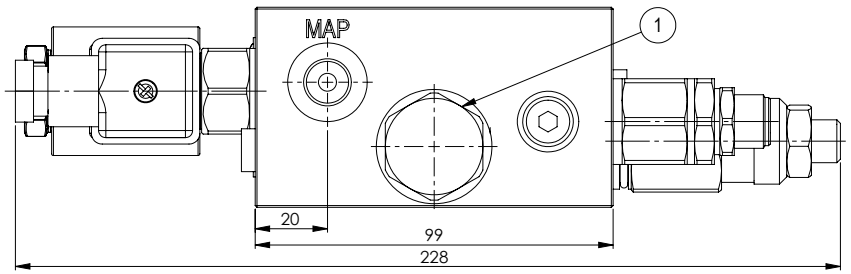
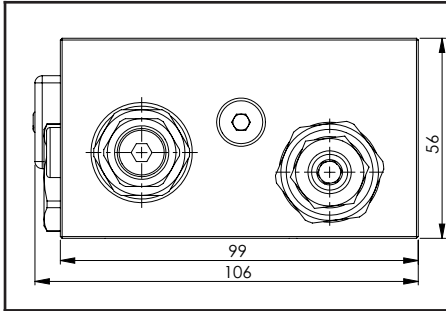
S = Screw

* Omit if not required. For example, to order the product without the relief cartridge valves, omit the pressure range and adjustment type options: H3623A.
 The manifold will still be provided with the corresponding cavities.
 To inhibit a relief valve, replace the related options with TL: eg. H3623A-TL-S2.
 In the cavity it will be mounted a long plug.

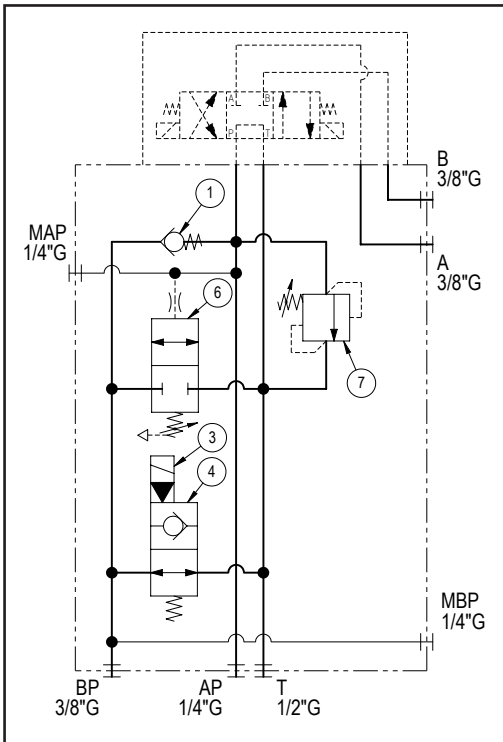
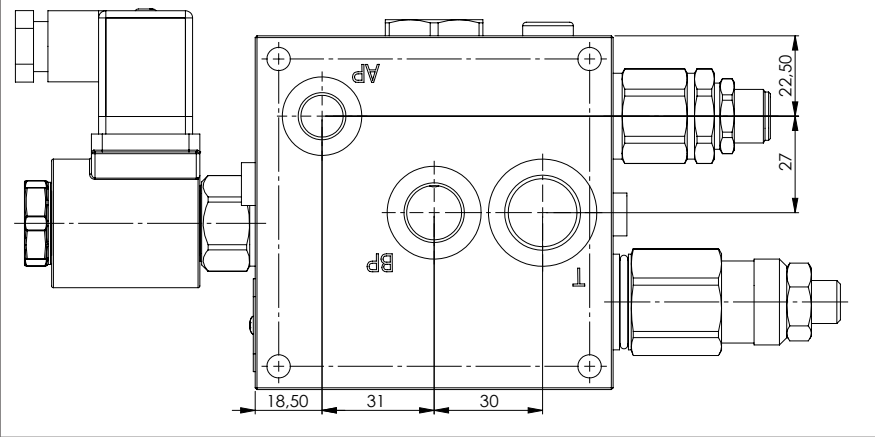
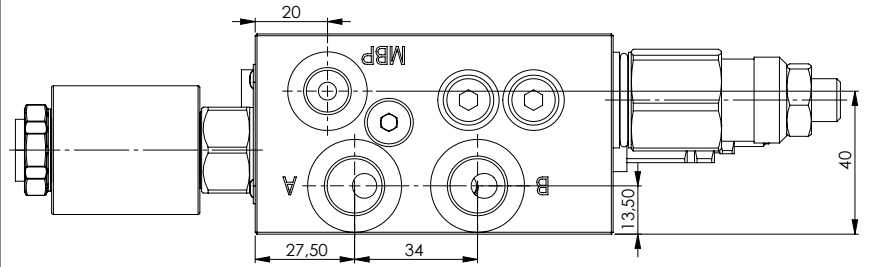
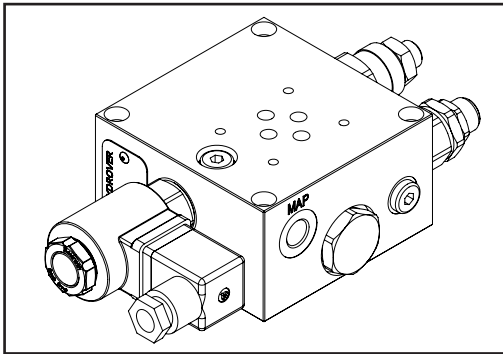
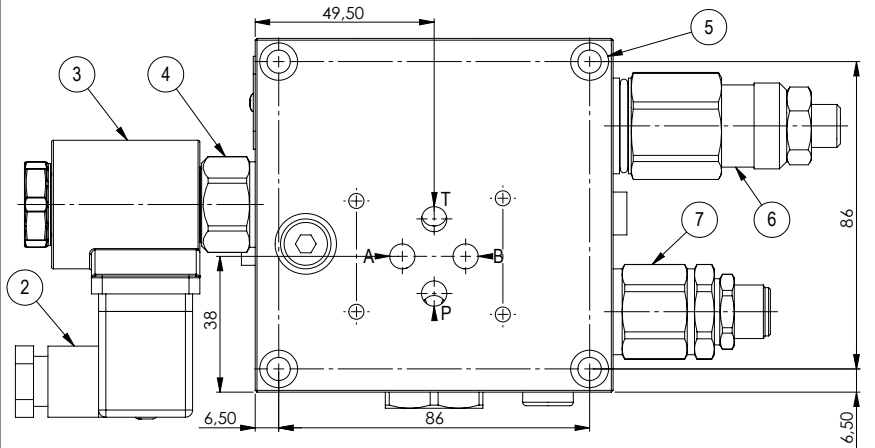
Valve	Cavity	Long plug code
Pressure relief valve VMD1.025	VMD1.025	R-800-016

Cetop 3 single station subplate / pump unloading / relief valve **H3640**

Dimensions in mm



Technical data	
Max. pressure	350 bar
Low pressure max. flow	30 lpm
High pressure max. flow	10 lpm
Weight	4,27 Kg
Manifold material	Steel
AP / MAP / MBP ports	1/4" G
BP / A / B ports	3/8" G
T port	1/2" G



Ordering code

H 3 6 4 0 S - - - - - - - - - -

Hydrover product

Product series
36 series - Cetop 3 subplates

Product ID

Manifold material
Steel

Directional valve adjustment type
Screw = S

Directional valve adjustment pressure range

5-35 bar	= 1
14-70 bar	= 2
35-105 bar	= 3
70-210 bar	= 4

Relief valve adjustment type
Screw = S

Solenoid valve coil connection *
1 = DIN 43650
ISO 4400

Solenoid valve coil voltage *

OB =	12V DC
OC =	24V DC
OD =	48V DC
OU =	110V RAC
AH =	230V RAC

Solenoid valve manual override *

E0 =	Without
EP =	Push (NA)
EG =	Push and twist (NA)

Relief valve adjustment pressure range *

1=	25-120 bar
2=	40-200 bar
3=	200-350 bar

* Omit if not required. For example, to order the product without coil, omit the coil voltage and connection options: eg. H3640S-S2-S3-E0.
To inhibit the low-pressure release solenoid valve, replace the related options with TL: eg. H3640S-S2-S3-TL.
In the cavity it will be mounted a long plug.

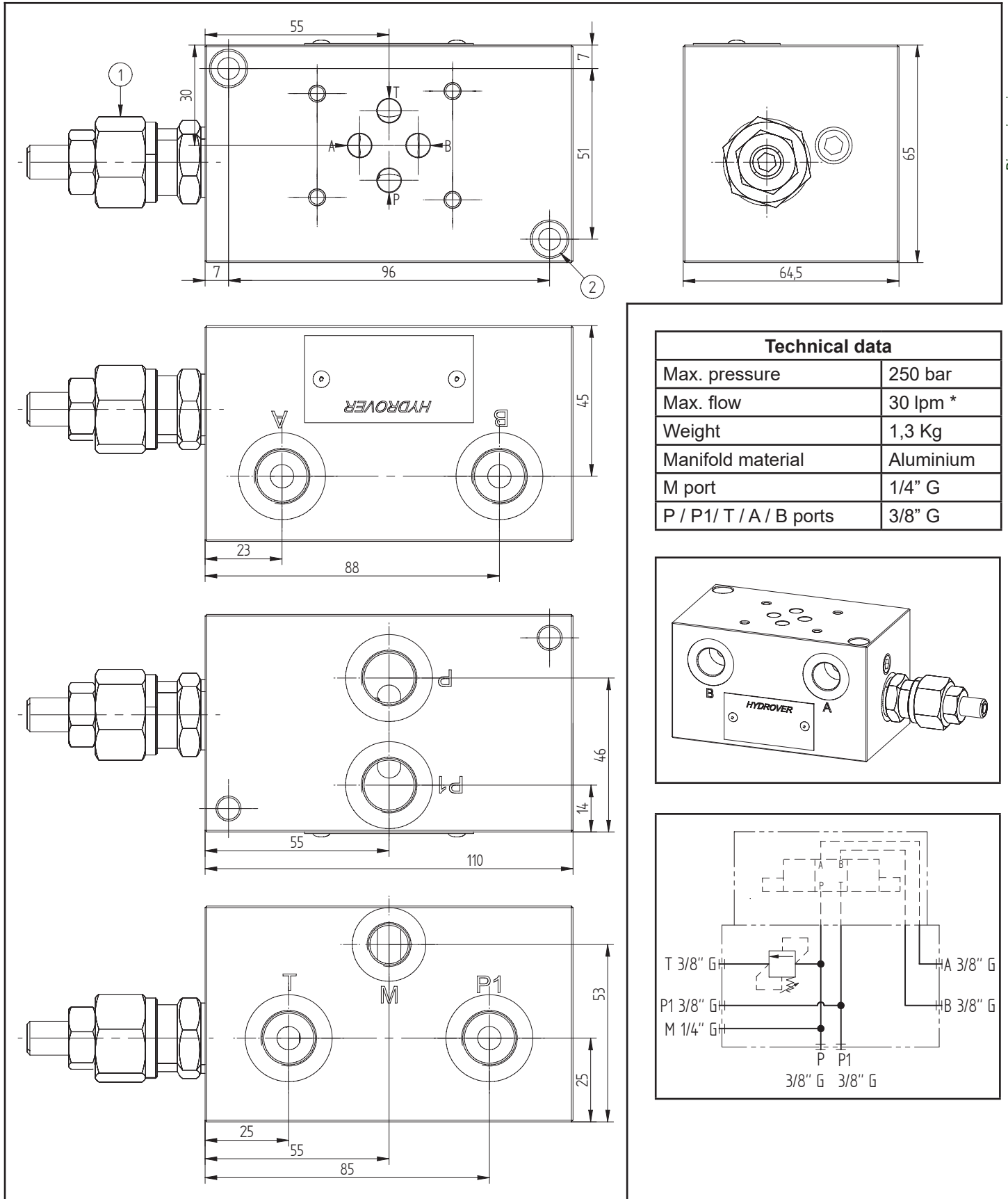
Valve	Cavity	Long plug code
Bosch Rexroth solenoid valve VEI-16-08A-NA OD.15.06.18-Y-000000	CA-08A-2N	0489A2005600000

N°	Description	Q.ty
1	Bosch Rexroth check valve	1
2	Connector DIN 43650 ISO 4400	1
3	Bosch Rexroth coil D36 - CLASS H DIN 43650 ISO 4400 **	1
4	Bosch Rexroth solenoid valve VEI-16-08A-NA OD.15.06.18-Y-000000 depicted without manual override **	1
5	Ø 6,5 through hole with counterbore for mounting	4
6	Directional valve normally closed	1
7	Bosch Rexroth relief valve VMD1.025 **	1

** for complete technical information, click on the blue link or go to the components section at the end of the catalogue

Cetop 3 single station subplate for serial circuit relief valve with separated discharged port / 30 lpm

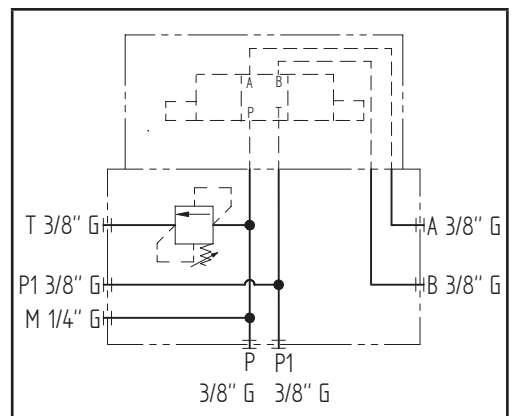
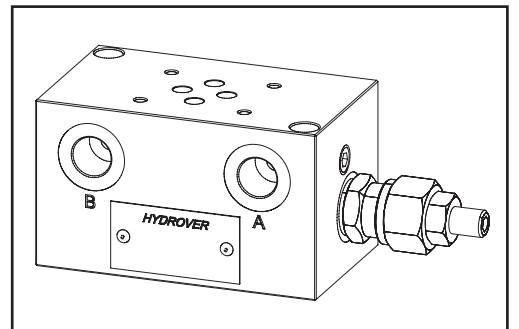
H3608



Dimensions in mm

Technical data

Max. pressure	250 bar
Max. flow	30 lpm *
Weight	1,3 Kg
Manifold material	Aluminium
M port	1/4" G
P / P1 / T / A / B ports	3/8" G



N°	Description	Q.ty
1	Bosch Rexroth relief valve VS-30 *	1
2	Ø 6,5 through hole for mounting with counterbore	2

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue

Ordering code

H	3	6	0	8	A	-	-	-
---	---	---	---	---	---	---	---	---

Hydrover product

Product series

36 series - Cetop 3 subplates

Product ID

Relief valve adjustment pressure range *

- 0 = 5-50 bar
- 1 = 30-100 bar
- 2 = 50-210 bar
- 3 = 100-350 bar

Relief valve adjustment type *

- S = Screw
- K = Knob

Manifold material
Aluminium

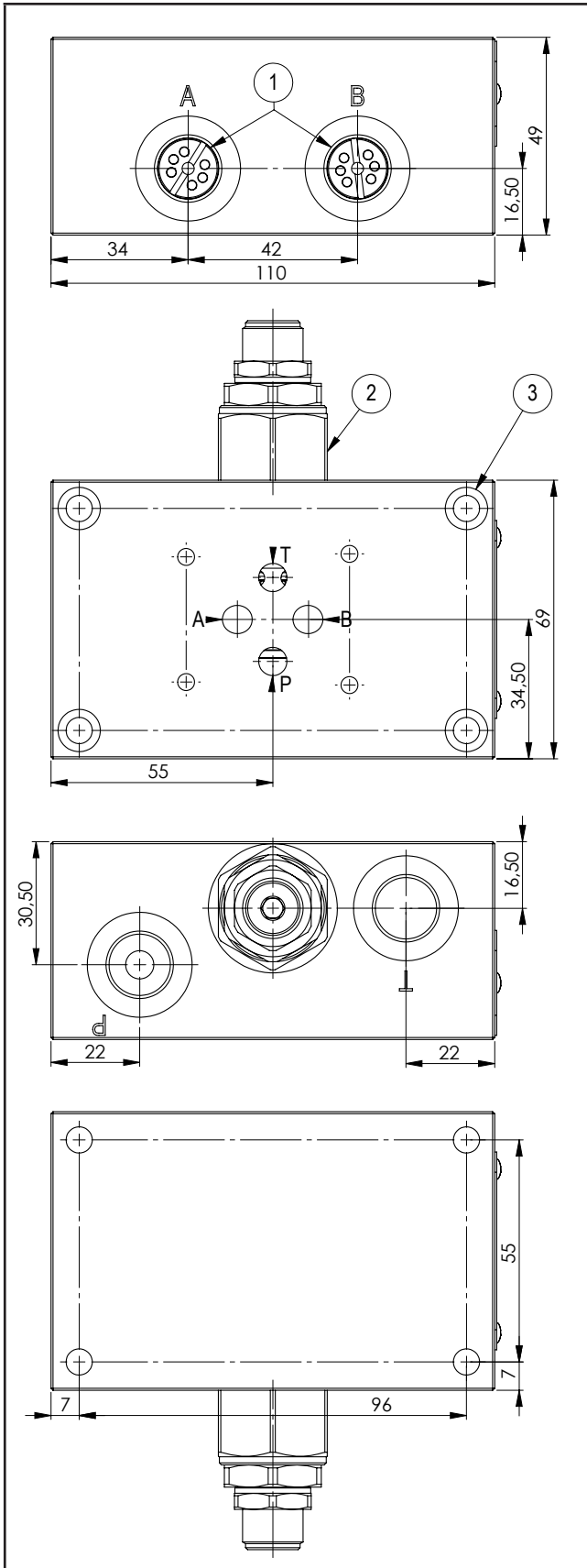
* Omit if not required. For example, to order the product without the relief cartridge valve, omit the pressure range and adjustment type options: H3608A.
 The manifold will still be provided with the corresponding cavity.
 To inhibit a relief valve, replace the related options with TL: eg. H3608A-TL.
 In the cavity it will be mounted a long plug.

Valve	Cavity	Long plug code
Pressure relief valve VS-30	008	D8TVMDC

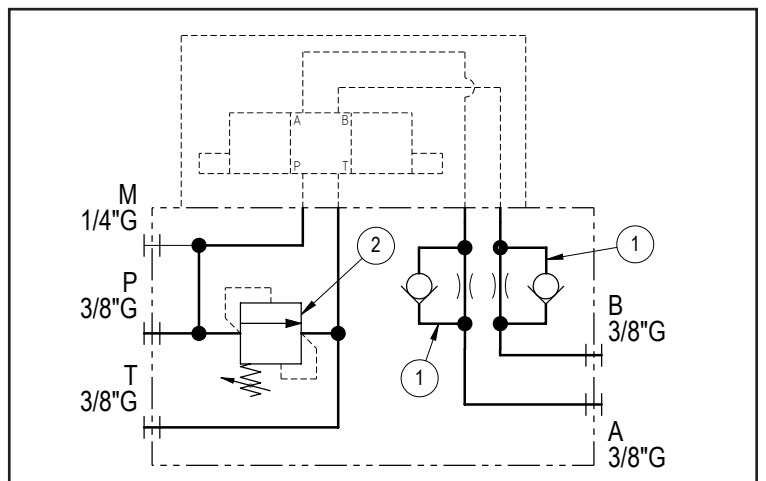
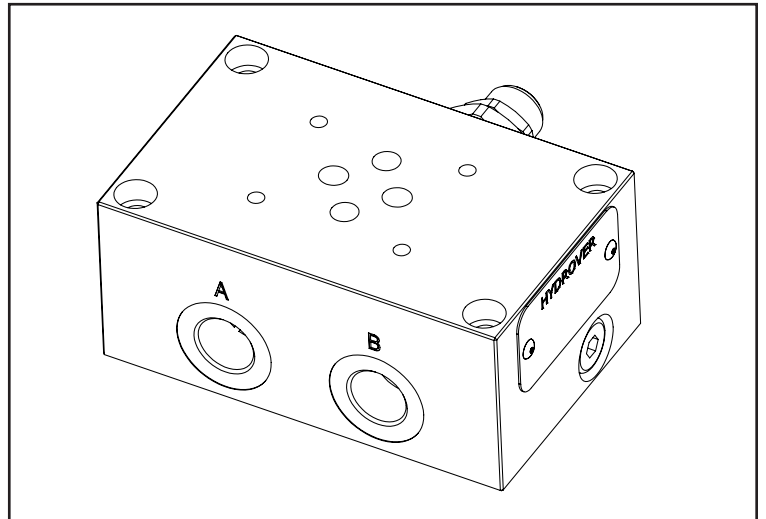
Cetop 3 single station subplate / relief valve
fixed setting flow regulators on A and/or B

H3641

Dimensions in mm



Technical data	
Max. pressure	250 bar
Max. flow	25 lpm
Weight	1,1 Kg
Manifold material	Aluminium
M port	1/4" G
P / T / A / B ports	3/8" G



N°	Description	Q.ty
1	Bosch Rexroth unidirectional flow restrictor GSU1.38 *	2
2	Bosch Rexroth relief valve VMD1.025 *	1
3	Ø 6,5 through hole for mounting with counterbore	4

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue

Ordering code

H	3	6	4	1	A	-	-	-	-	-	-	-
---	---	---	---	---	---	---	---	---	---	---	---	---

Hydrover product

Product series

36 series - Cetop 3 subplates

Product ID

Manifold material

Aluminium

Relief valve

adjustment type

Screw

= S

Relief valve

pressure range

1 = 25-120 bar

2 = 40-200 bar

3 = 200-350 bar

Flow restrictor on B

00 = Without

01 = Ø 0,1 mm

02 = Ø 0,2 mm

...

24 = Ø 2,4 mm

25 = Ø 2,5 mm

Flow restrictor on A

00 = Without

01 = Ø 0,1 mm

02 = Ø 0,2 mm

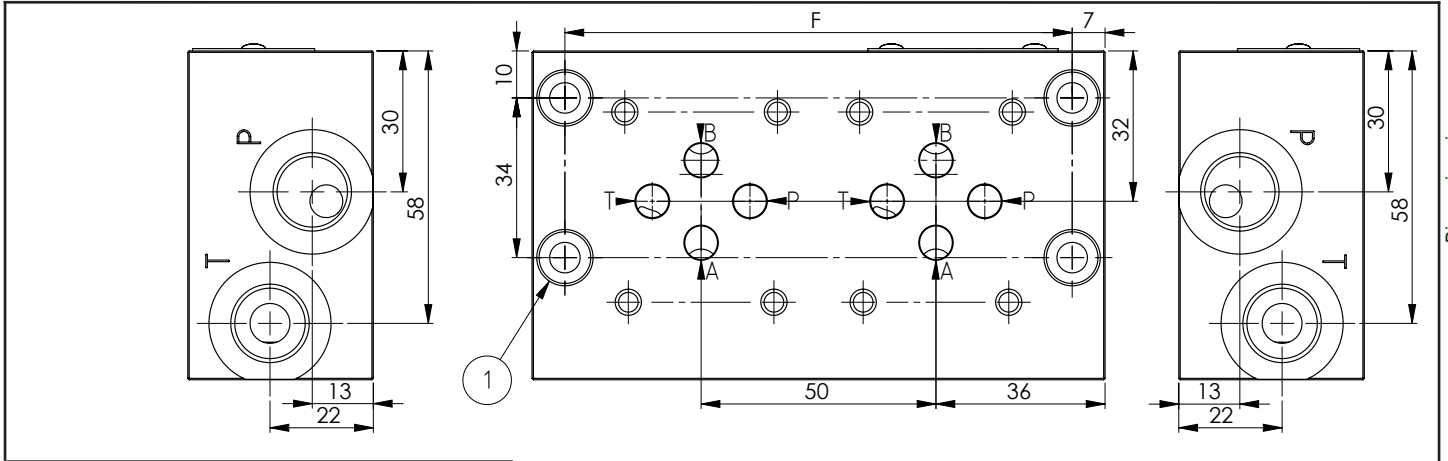
...

24 = Ø 2,4 mm

25 = Ø 2,5 mm

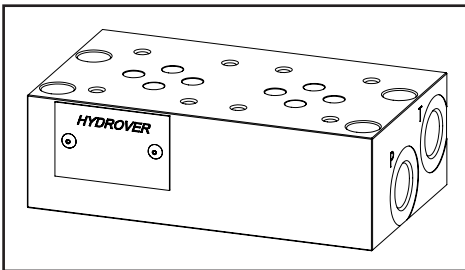
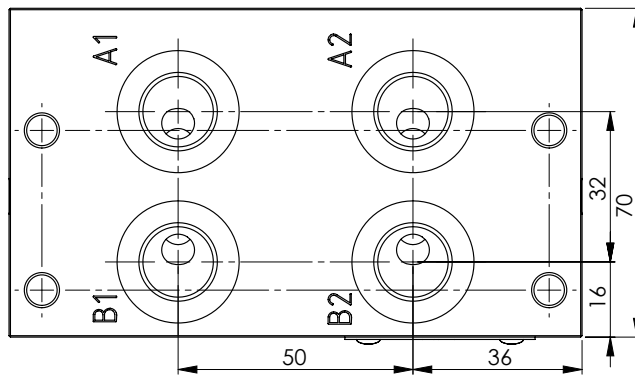
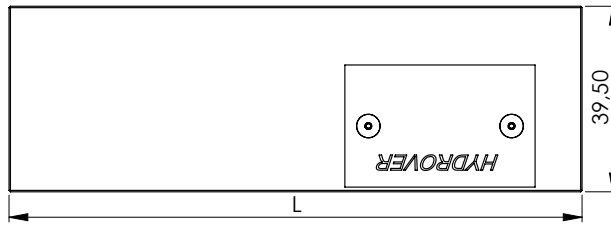
Cetop 3 subplate from 2 to 9 stations
crossing P-T ports 3/8" G / back A-B ports 3/8" G

H3612



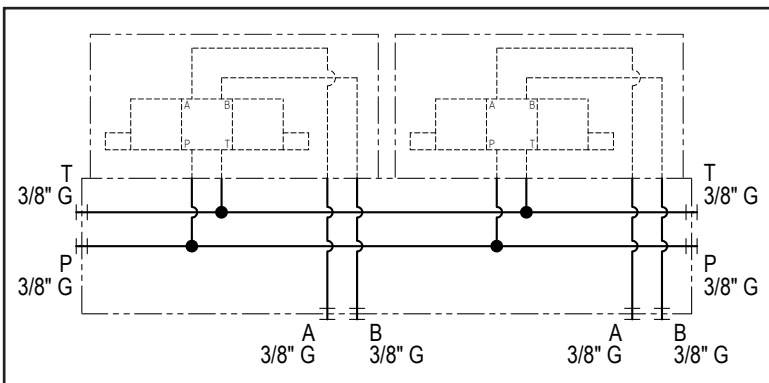
Dimensions in mm

Technical data	
Max. pressure	250 bar
Max. pressure su T	25 bar
2 stations weight	0,83 Kg
3 stations weight	1,18 Kg
4 stations weight	1,53 Kg
5 stations weight	1,88 Kg
6 stations weight	2,23 Kg
7 stations weight	2,58 Kg
8 stations weight	2,93 Kg
9 stations weight	3,28 Kg
Manifold material	Aluminium
P / T / A / B ports	3/8" G



N°	Description	Q.ty
1	∅ 6,5 through hole for mounting	4

Stat.	2	3	4	5	6	7	8	9
F	108	158	208	258	308	358	408	458
L	122	172	222	272	322	372	422	472



Ordering code

H	3	6	1	2	A	_	_
---	---	---	---	---	---	---	---

Hydrover product

Product series

36 series - Cetop 3 subplates

Product ID

Manifold material

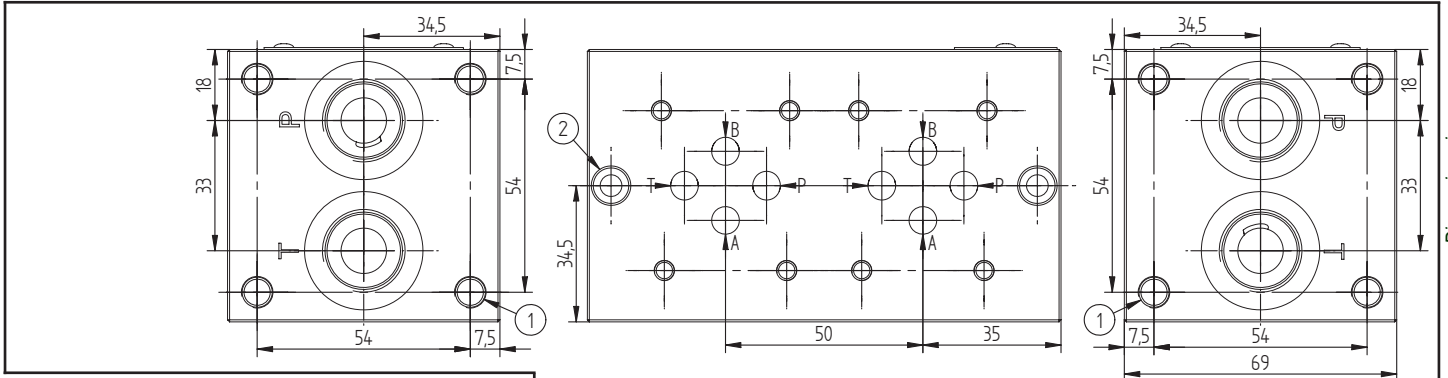
Aluminium

Number of Cetop 3 stations

2P =	2 stations
3P =	3 stations
4P =	4 stations
5P =	5 stations
6P =	6 stations
7P =	7 stations
8P =	8 stations
9P =	9 stations

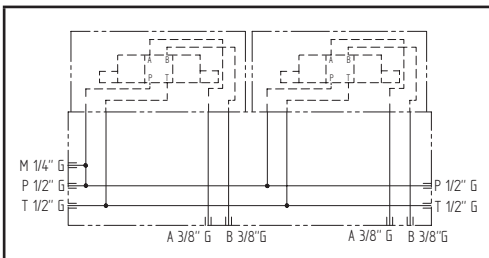
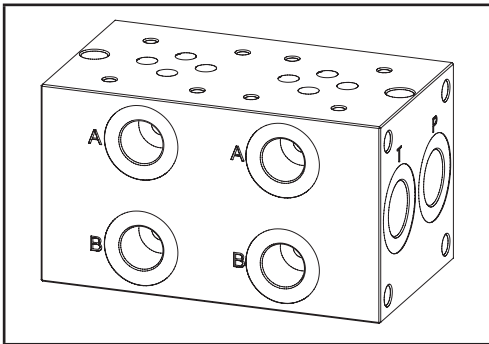
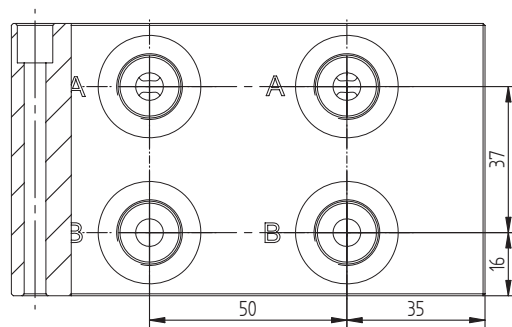
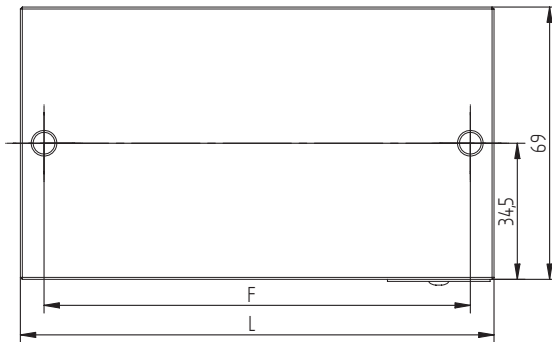
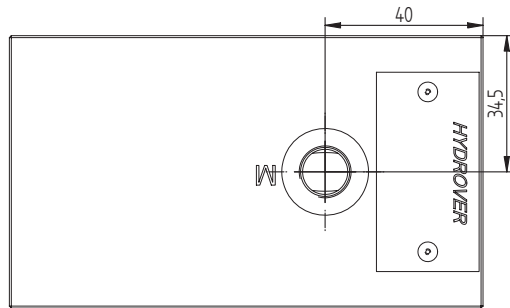
Cetop 3 subplate from 1 to 7 stations
crossing P-T ports 1/2" G / side A-B ports 3/8" G

H3601



Dimensions in mm

Technical data		
	Aluminium	Steel
Press. max.	250 bar	350 bar
1 stat. weight	0,8 Kg	2,2 Kg
2 stat. weight	1,4 Kg	3,9 Kg
3 stat. weight	2 Kg	5,5 Kg
4 stat weight	2,6 Kg	7,2 Kg
5 stat. weight	3,2 Kg	8,8 Kg
6 stat. weight	3,8 Kg	10,5 Kg
7 stat. weight	4,4 Kg	12,1 Kg
M port	1/4" G	
A / B ports	3/8" G	
P / T ports	1/2" G	



N°	Description	Q.ty
1	M8x15 thread for mounting	8
2	Ø 5,5 through hole for mounting	2

Stat.	1	2	3	4	5	6	7
F	58	108	158	208	258	308	358
L	70	120	170	220	270	320	370

Ordering code

H	3	6	0	1	_	_	_
---	---	---	---	---	---	---	---

Hydrover product

Product series

36 series - Cetop 3 subplates

Product ID

Manifold material

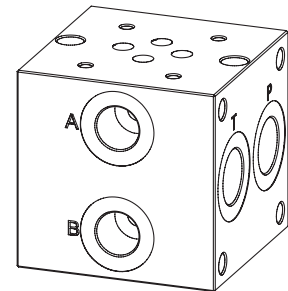
Aluminium
Steel

= A
= S

Number of Cetop 3 stations

- 1P = 1 station
- 2P = 2 stations
- 3P = 3 stations
- 4P = 4 stations
- 5P = 5 stations
- 6P = 6 stations
- 7P = 7 stations

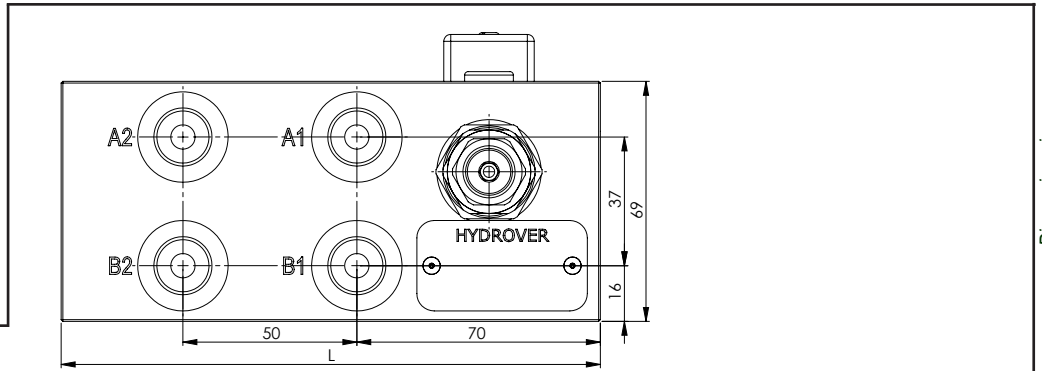
1 station version (1P)



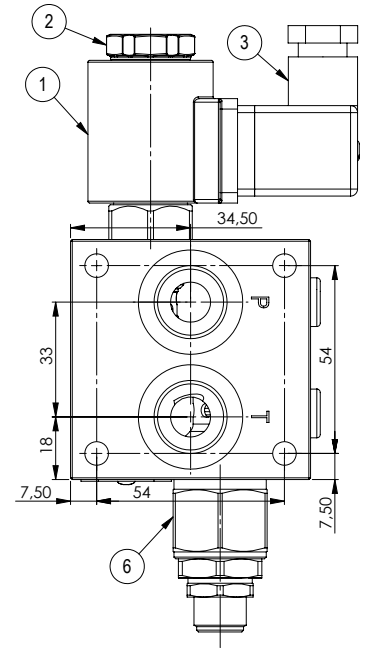
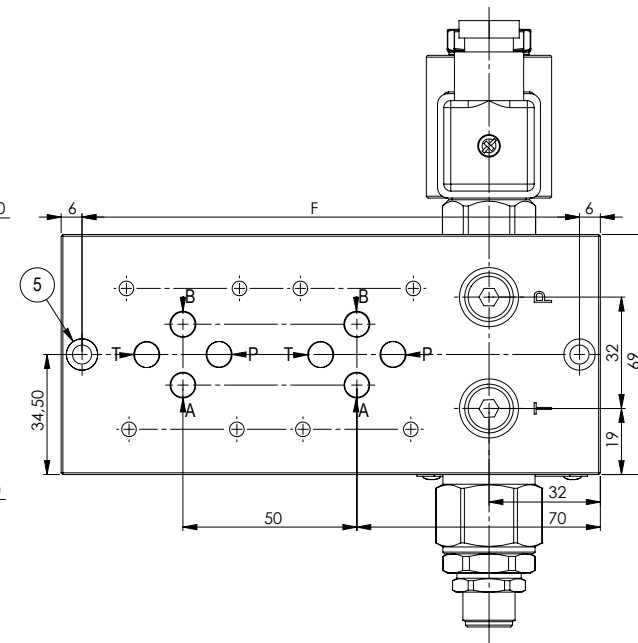
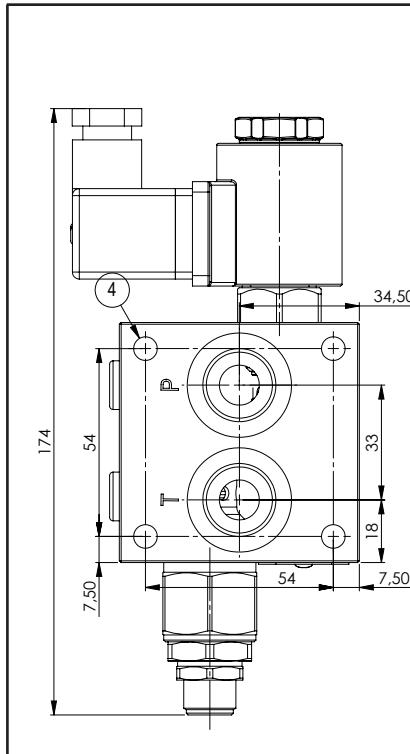
Cetop 3 subplate from 2 to 7 stations / bypass and relief valves
crossing P-T ports 1/2" G / side A-B ports 3/8" G / 40 lpm

H3626

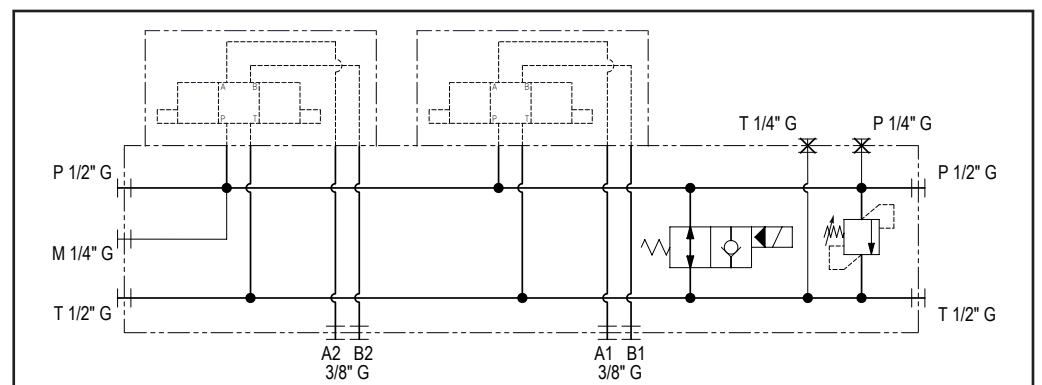
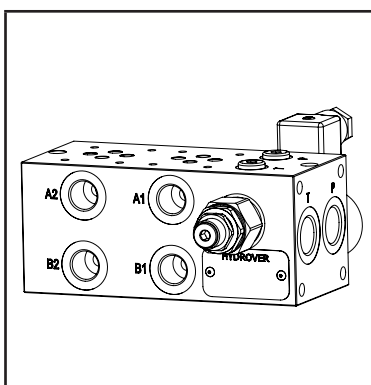
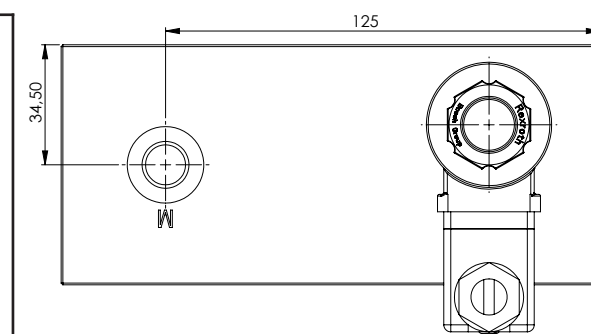
Technical data	
Max. pressure	250 bar
Max. flow	40 lpm *
Manifold material	Aluminium
M / P / T ports	1/4" G
A / B ports	3/8" G
P / T ports	1/2" G



Dimensions in mm



Stat.	F	L	Weight
2	143	155	1,7 Kg
3	193	205	2,3 Kg
4	243	255	2,9 Kg
5	293	305	3,5 Kg
6	343	355	4,2 Kg
7	393	405	4,8 Kg



Ordering code

H 3 6 2 6 A _ _ - _ _ - _ _ - _ _ -

Hydrover product

Product series

36 series - Cetop 3 subplates

Product ID

Manifold material

Aluminium

Number of Cetop 3 stations

2 stations	= 2P
3 stations	= 3P
4 stations	= 4P
5 stations	= 5P
6 stations	= 6P
7 stations	= 7P

Relief valve adjustment type *

Screw = S

Relief valve adjustment pressure range *

25-120 bar	= 1
40-200 bar	= 2
200-350 bar	= 3

Solenoid valve coil connection *

1 = DIN 43650
ISO 4400

Solenoid valve coil voltage *

OB =	12V DC
OC =	24V DC
OD =	48V DC
OU =	110V RAC
AH =	230V RAC

Solenoid valve manual override *

E0 =	Without
EP =	Push
EG =	Push and twist

* Omit if not required. For example, to order the product without coil, omit the coil voltage and connection options: eg. H3626A3P-S2-E0.

To inhibit the relief valve, replace the related options with TL: eg. H3626A3P-TL-E0-OC1.

In the cavity it will be mounted a long plug.

Valve	Cavity	Long plug code
Bosch Rexroth solenoid valve VEI-16-08A-NA OD.15.06.18-Y-000000	CA-08A-2N	0489A2005600000
Pressure relief valve VMD1.040	CA-10A-2N	0489A2008500000

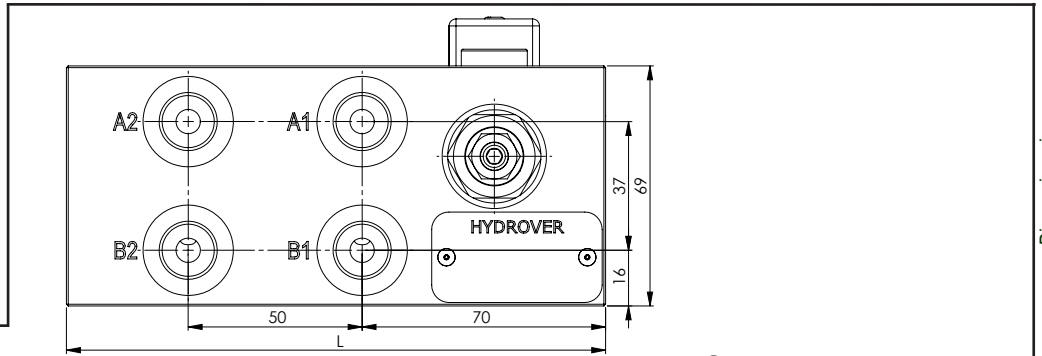
N°	Description	Q.ty
1	Bosch Rexroth coil D36 - CLASS H DIN 43650 ISO 4400 **	1
2	Bosch Rexroth solenoid valve VEI-16-08A-NA OD.15.06.18-Y-000000 depicted without manual override **	1
3	Connector DIN 43650 ISO 4400	1
4	Foro M8x15 thread for mounting	8
5	Ø 5,5 through hole with counterbore for mounting	2
6	Bosch Rexroth relief valve VMD1.040 **	1

** for complete technical information, click on the blue link or go to the components section at the end of the catalogue

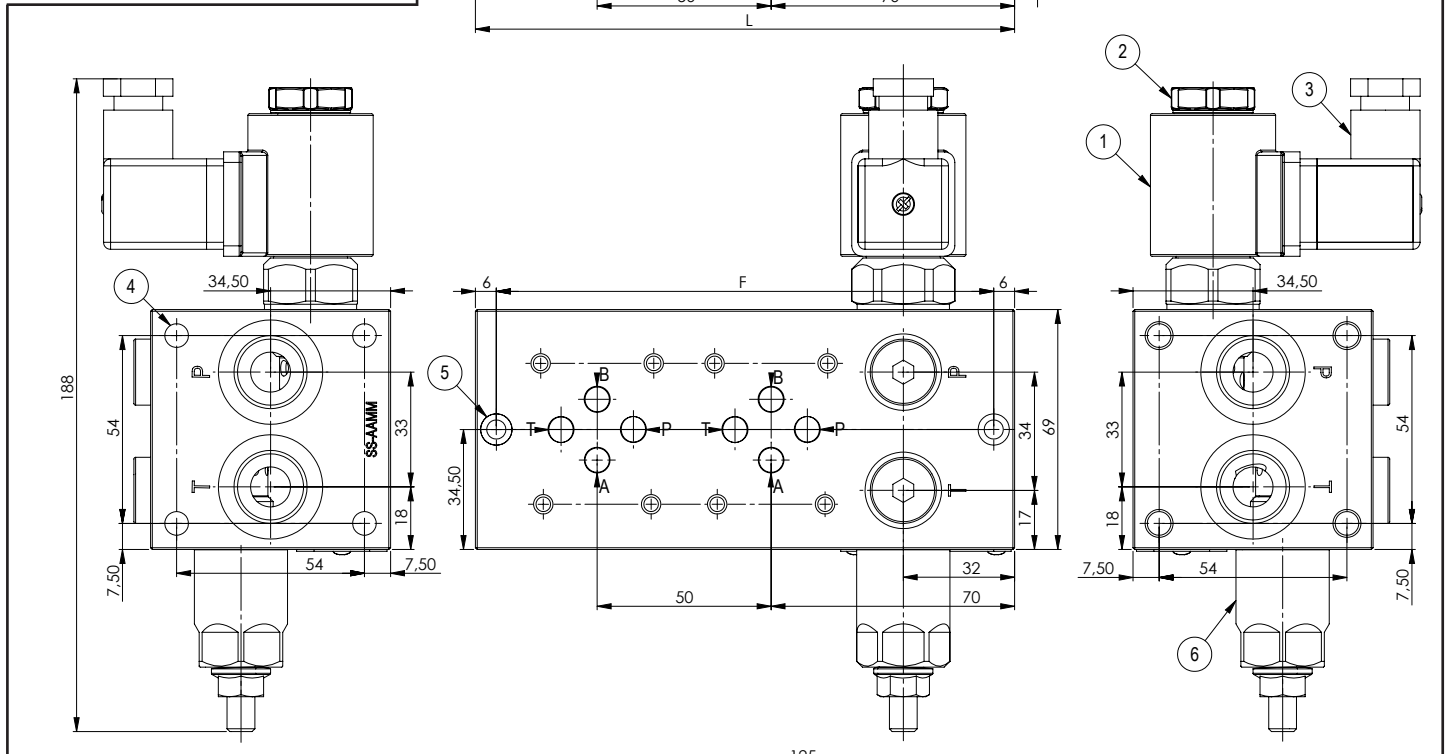
Cetop 3 subplate from 2 to 7 stations / bypass and relief valves
crossing P-T ports 1/2" G / side A-B ports 3/8" G / 60 lpm

H3615

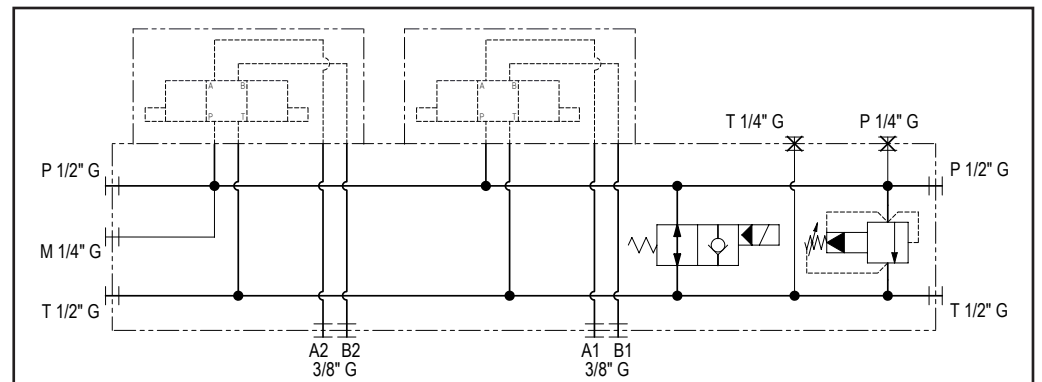
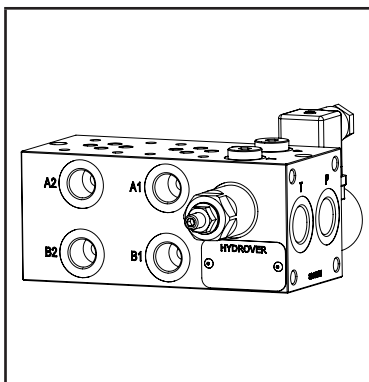
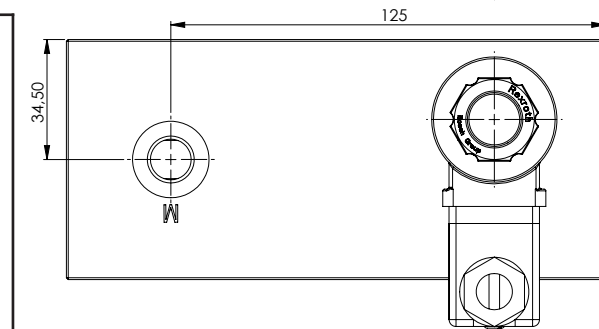
Technical data	
Max. pressure	250 bar
Max. flow	60 lpm *
Manifold material	Aluminium
M / P / T ports	1/4" G
A / B ports	3/8" G
P / T ports	1/2" G



Dimensions in mm



Stat.	F	L	Weight
2	143	155	1,8 Kg
3	193	205	2,4 Kg
4	243	255	3,0 Kg
5	293	305	3,6 Kg
6	343	355	4,3 Kg
7	393	405	4,9 Kg



Ordering code

H 3 6 1 5 A _ _ - _ _ - _ _ - _ _

Hydrover product

Product series

36 series - Cetop 3 subplates

Product ID

Manifold material

Aluminium

Number of Cetop 3 stations

- 2 stations = 2P
- 3 stations = 3P
- 4 stations = 4P
- 5 stations = 5P
- 6 stations = 6P
- 7 stations = 7P

Relief valve adjustment type *

- Screw = S
- Knob = K

Relief valve adjustment pressure range*

- 35-140 bar = 1
- 70-280 bar = 2
- 140-420 bar = 3
- 35-350 bar (adj. knob) = 3

Solenoid valve coil connection *

- 1 = DIN 43650
- ISO 4400

Solenoid valve coil voltage *

- OB = 12V DC
- OC = 24V DC
- OD = 48V DC
- OU = 110V RAC
- AH = 230V RAC

Solenoid valve manual override *

- E0 = Without
- EP = Push
- EG = Push and twist

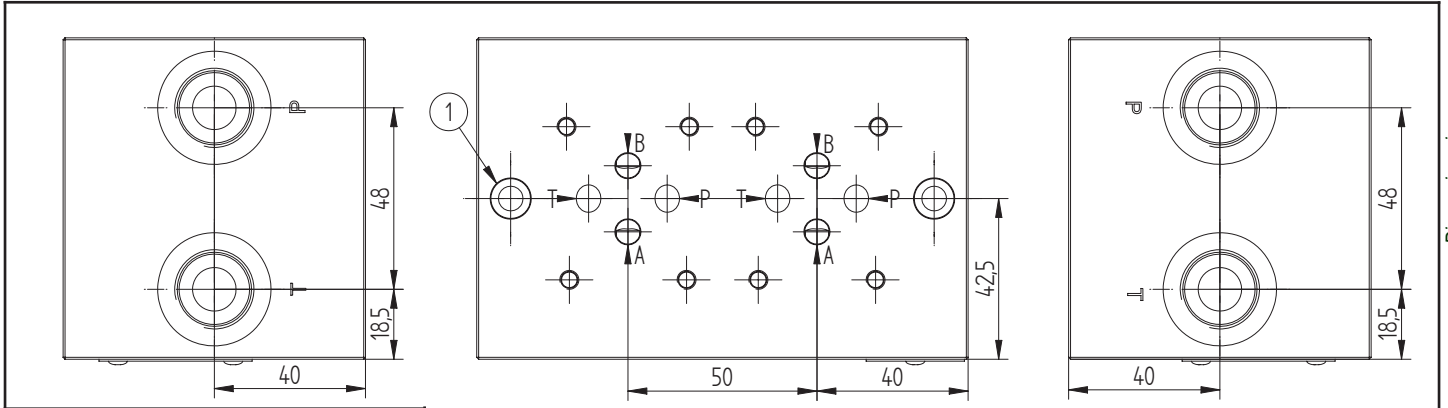
* Omit if not required. For example, to order the product without coil, omit the coil voltage and connection options: eg. H3626A3P-S2-E0.
 To inhibit the relief valve, replace the related options with TL: eg. H3626A3P-TL-E0-OC1.
 In the cavity it will be mounted a long plug.

Valve	Cavity	Long plug code
Bosch Rexroth solenoid valve VEI-16-10A-NA OD.15.06.36-Y-000000	CA-10A-2N	0489A2008500000
Pressure relief valve VSPN-10A	CA-10A-2N	0489A2008500000

N°	Description	Q.ty
1	Bosch Rexroth coil D36 - CLASS H DIN 43650 ISO 4400 *	1
2	Bosch Rexroth solenoid valve VEI-16-10A-NA OD.15.06.36-Y-000000 depicted without manual override *	1
3	Connector DIN 43650 ISO 4400	1
4	M8x15 thread for mounting	8
5	Ø 5,5 through hole with counterbore for mounting	2
6	Bosch Rexroth relief valve VSPN-10A* depicted with screw adjustment	1

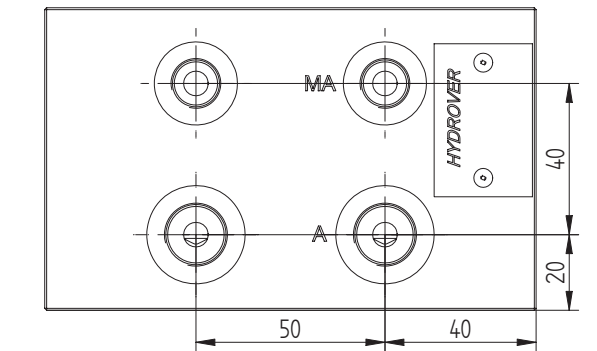
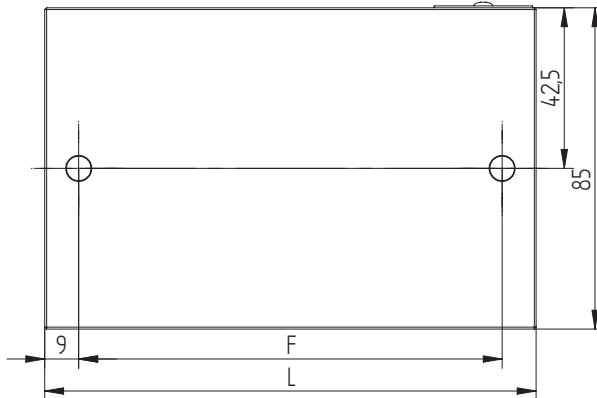
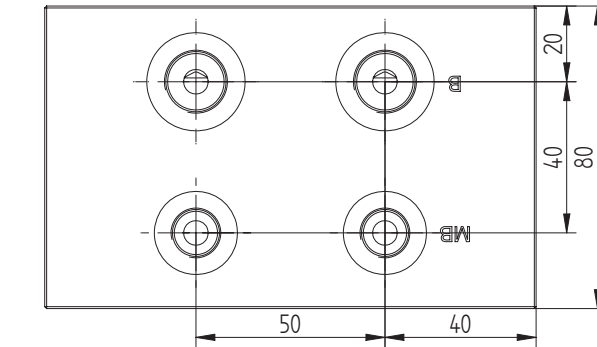
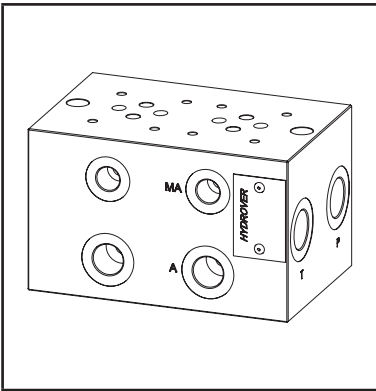
Cetop 3 subplate from 2 to 8 stations / crossing P-T ports 1/2" G
side A-B ports 3/8" G / side MA-MB ports 1/4" G

H3610

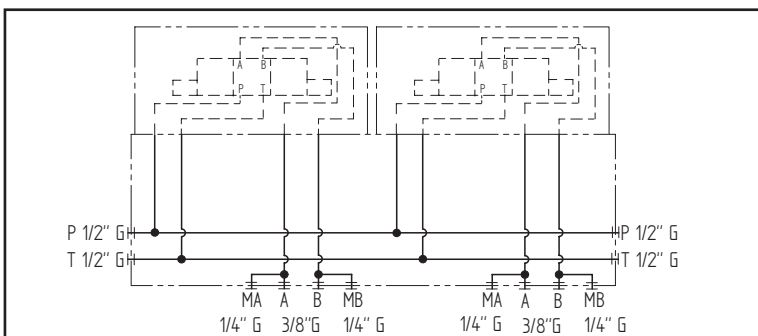


Dimensions in mm

Technical data	
Max. pressure	250 bar
2 stations weight	2,3 Kg
3 stations weight	3,4 Kg
4 stations weight	4,5 Kg
5 stations weight	5,6 Kg
6 stations weight	6,8 Kg
7 stations weight	7,9 Kg
8 stations weight	9,2 Kg
Manifold material	Aluminium
MA / MB ports	1/4" G
A / B ports	3/8" G
P / T ports	1/2" G



N°	Description	Q.ty
1	Ø 6,5 through hole for mounting	2



Stat.	2	3	4	5	6	7	8
F	112	162	212	262	312	362	412
L	130	180	230	280	330	380	430

H3610

Ordering code

H	3	6	1	0	_	_	_
---	---	---	---	---	---	---	---

Hydrover product

Product series

36 series - Cetop 3 subplates

Product ID

Manifold material

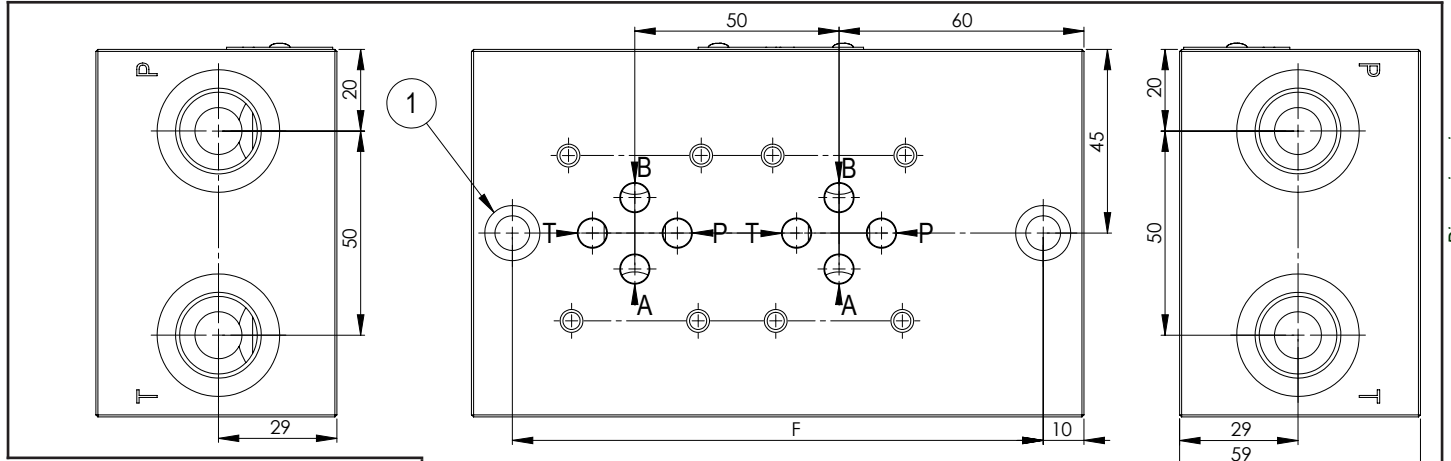
Aluminium

Number of Cetop 3 stations

2P =	2 stations
3P =	3 stations
4P =	4 stations
5P =	5 stations
6P =	6 stations
7P =	7 stations
8P =	8 stations

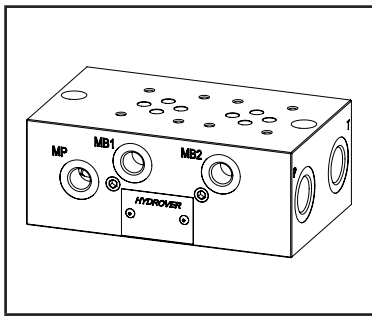
Cetop 3 subplate from 2 to 8 stations / crossing P-T ports 1/2" G
back A-B ports 3/8" G / side MA-MB ports 1/4" G

H3613

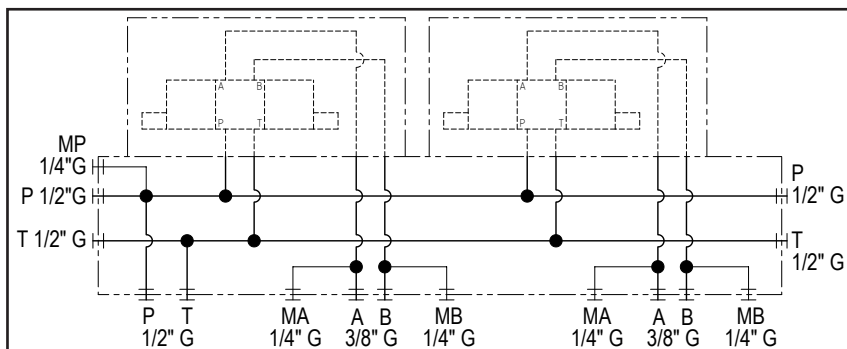
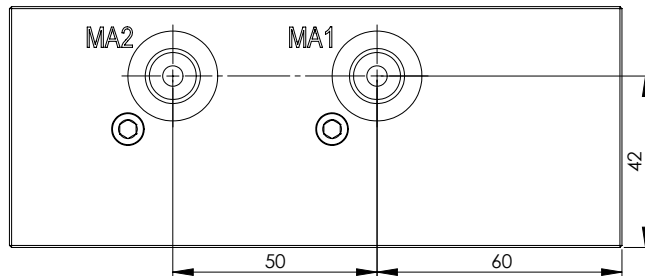
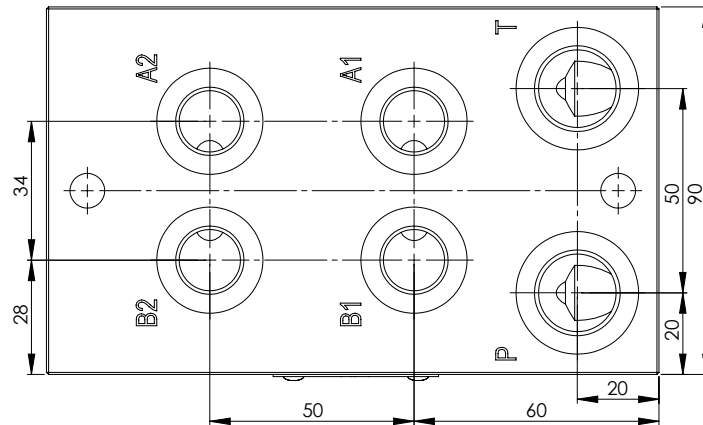
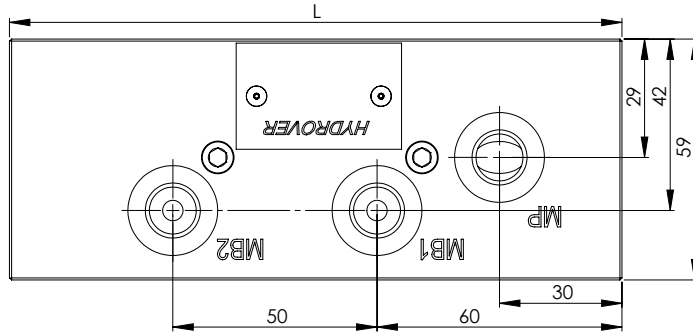


Dimensions in mm

Technical data	
Max. pressure	250 bar
Manifold material	Aluminium
MP / MA / MB ports	1/4" G
A / B ports	3/8" G
P / T ports	1/2" G



N°	Description	Q.ty
1	Ø 8,5 through hole for mounting with counterbore	2



Stat.	2	3	4	5	6	7	8
F	130	180	230	280	330	380	430
L	150	200	250	300	350	400	450
W. Kg	2	2,7	3,4	4,1	4,8	5,5	6,2

Ordering code

H	3	6	1	3	A	_	_
---	---	---	---	---	---	---	---

Hydrover product

Product series

36 series - Cetop 3 subplates

Product ID

Manifold material

Aluminium

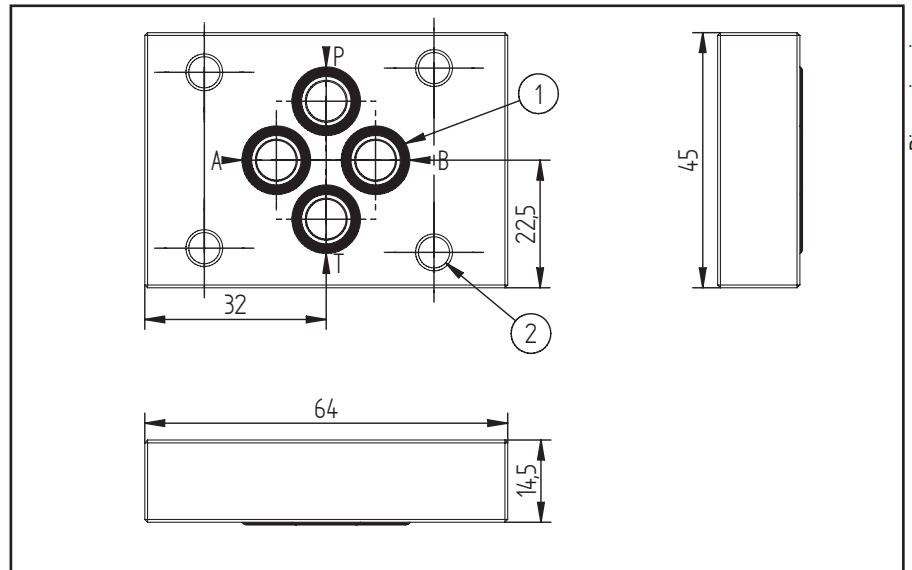
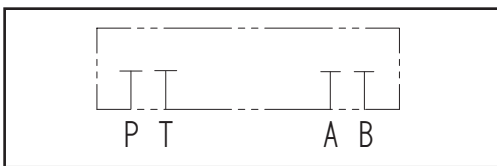
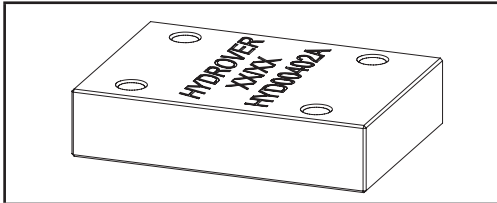
Number of Cetop 3 stations

2P =	2 stations
3P =	3 stations
4P =	4 stations
5P =	5 stations
6P =	6 stations
7P =	7 stations
8P =	8 stations

Aluminium version

Technical data

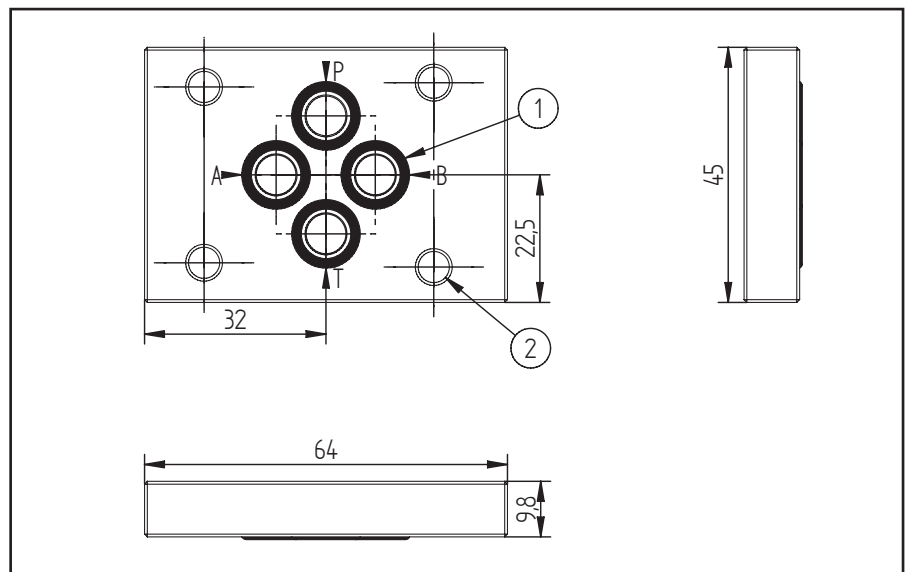
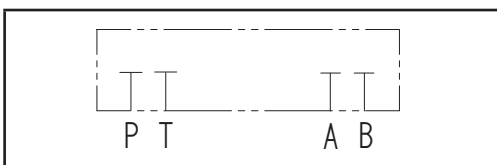
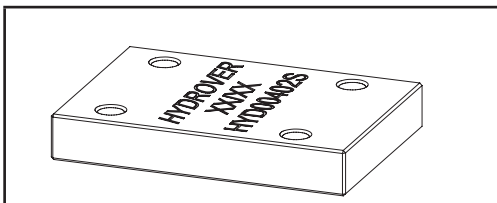
Max. pressure	250 bar
Weight	0,1 Kg



Steel version

Technical data

Max. pressure	350 bar
Weight	0,2 Kg



N°	Description	Q.ty
1	OR 108 i. Ø 8,73 cross section 1,78	4
2	Ø 5,5 through hole for mounting	4



Ordering code

H	3	6	0	3	_
---	---	---	---	---	---

Hydrover product

Product series

36 series - Cetop 3 subplates

Product ID

Manifold material

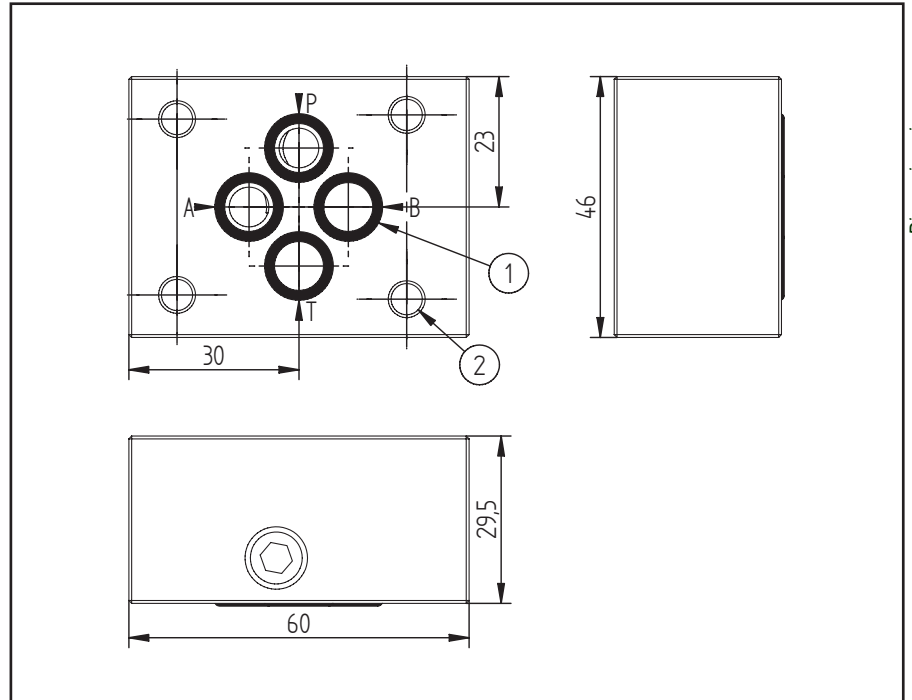
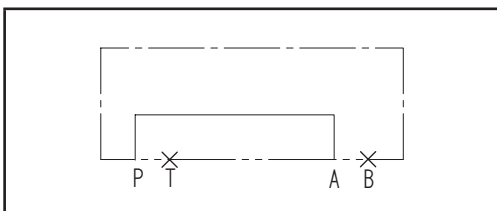
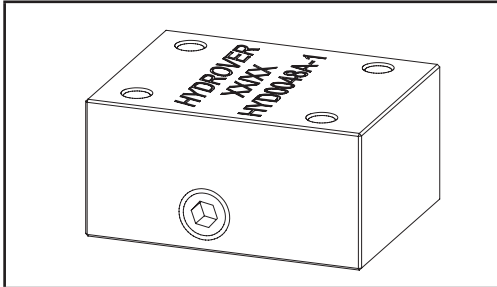
Aluminium

Steel

A=

S=

Technical data	
Max. pressure	250 bar
Weight	0,2 Kg



N°	Description	Q.ty
1	OR 108 i. Ø 8,73 cross section 1,78	4
2	Ø 5,5 through hole for mounting	4



Ordering code

H	3	6	0	4	A
---	---	---	---	---	---

Hydrover product

Product series

36 series - Cetop 3 subplates

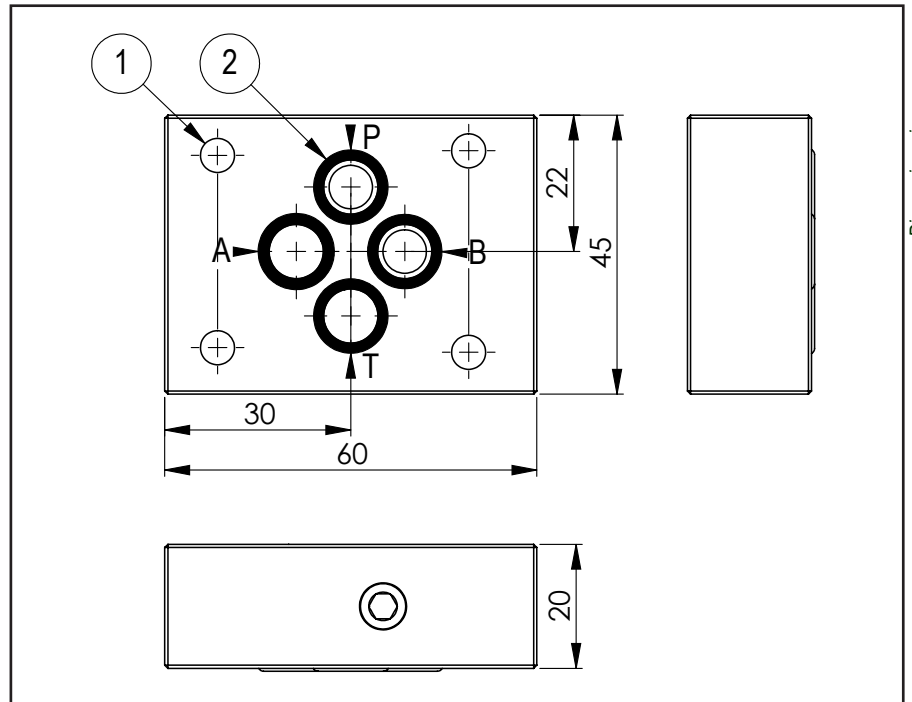
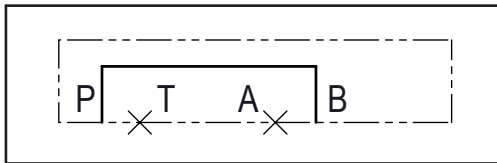
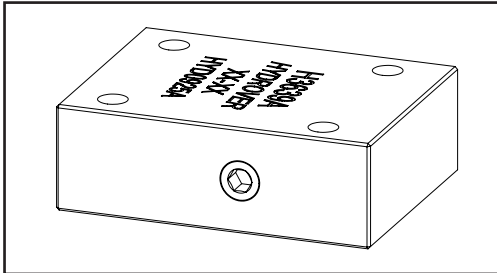
Product ID

Manifold material

Aluminium

Technical data

Max. pressure	250 bar
Weight	0,15 Kg



N°	Description	Q.ty
1	Ø 5,5 through hole for mounting	4
2	OR 108 i. Ø 8,73 cross section 1,78	4



Ordering code

H	3	6	3	9	A
---	---	---	---	---	---

Hydrover product

Product series

36 series - Cetop 3 subplates

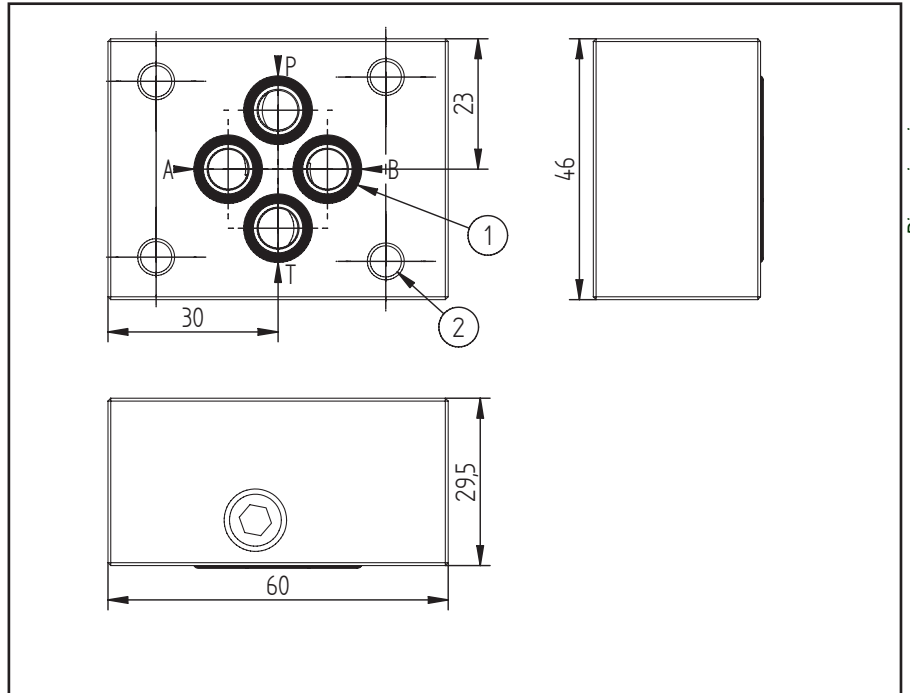
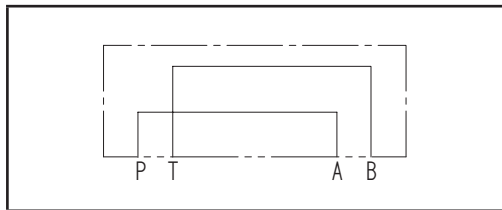
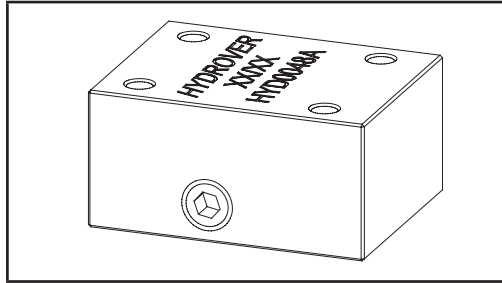
Product ID

Manifold material

Aluminium

Technical data

Max. pressure	250 bar
Weight	0,2 Kg



N°	Description	Q.ty
1	OR 108 i. Ø 8,73 cross section 1,78	4
2	Ø 5,5 through hole for mounting	4



Ordering code

H	3	6	0	5	A
---	---	---	---	---	---

Hydrover product

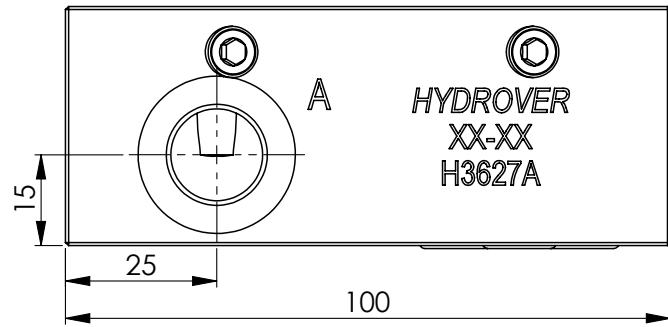
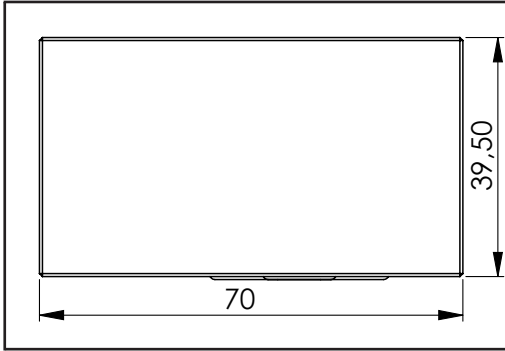
Product series

36 series - Cetop 3 subplates

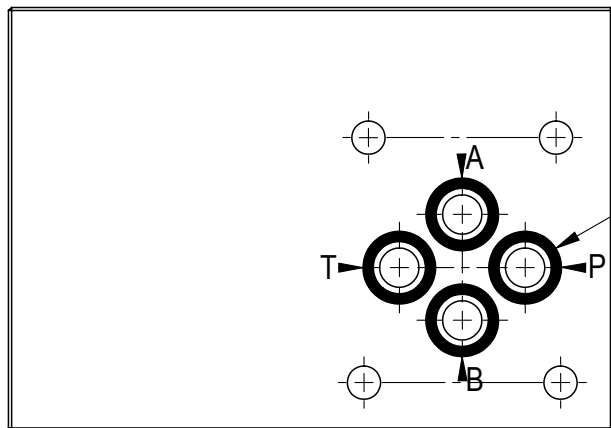
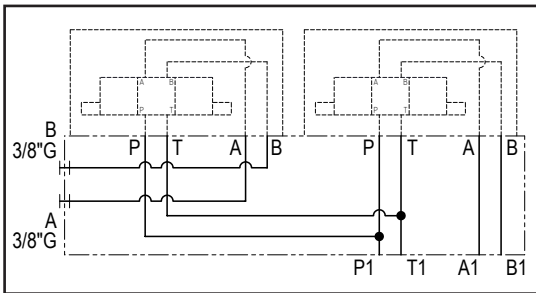
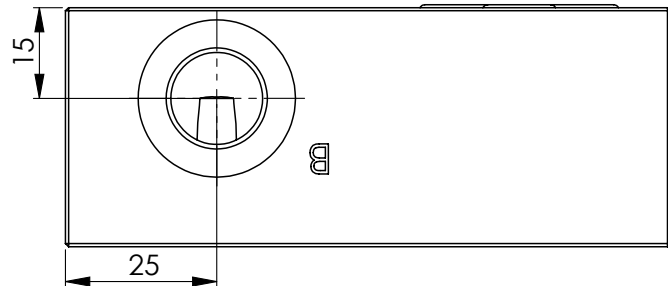
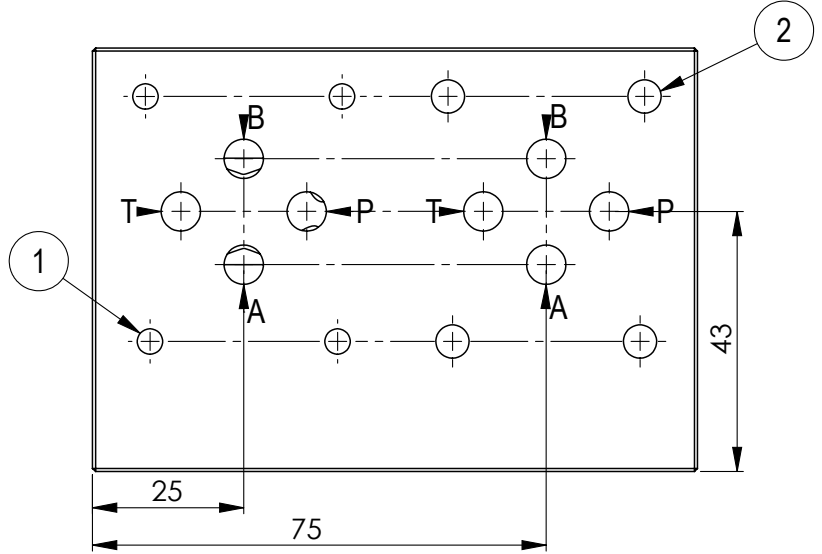
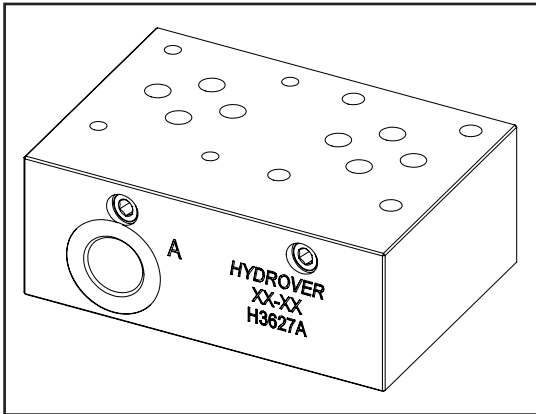
Product ID

Manifold material

Aluminium



Technical data	
Max. pressure	250 bar
Weight	0,7 Kg



N°	Description	Q.ty
1	M5x10 for mounting	4
2	Ø 5,5 through hole for mounting	4
3	OR 108 i. Ø 8,73 cross section 1,78	4



Ordering code

H	3	6	2	7	A
---	---	---	---	---	---

Hydrover product

Manifold material
Aluminium

Product series
36 series - Cetop 3 subplates

Product ID

Example assembly

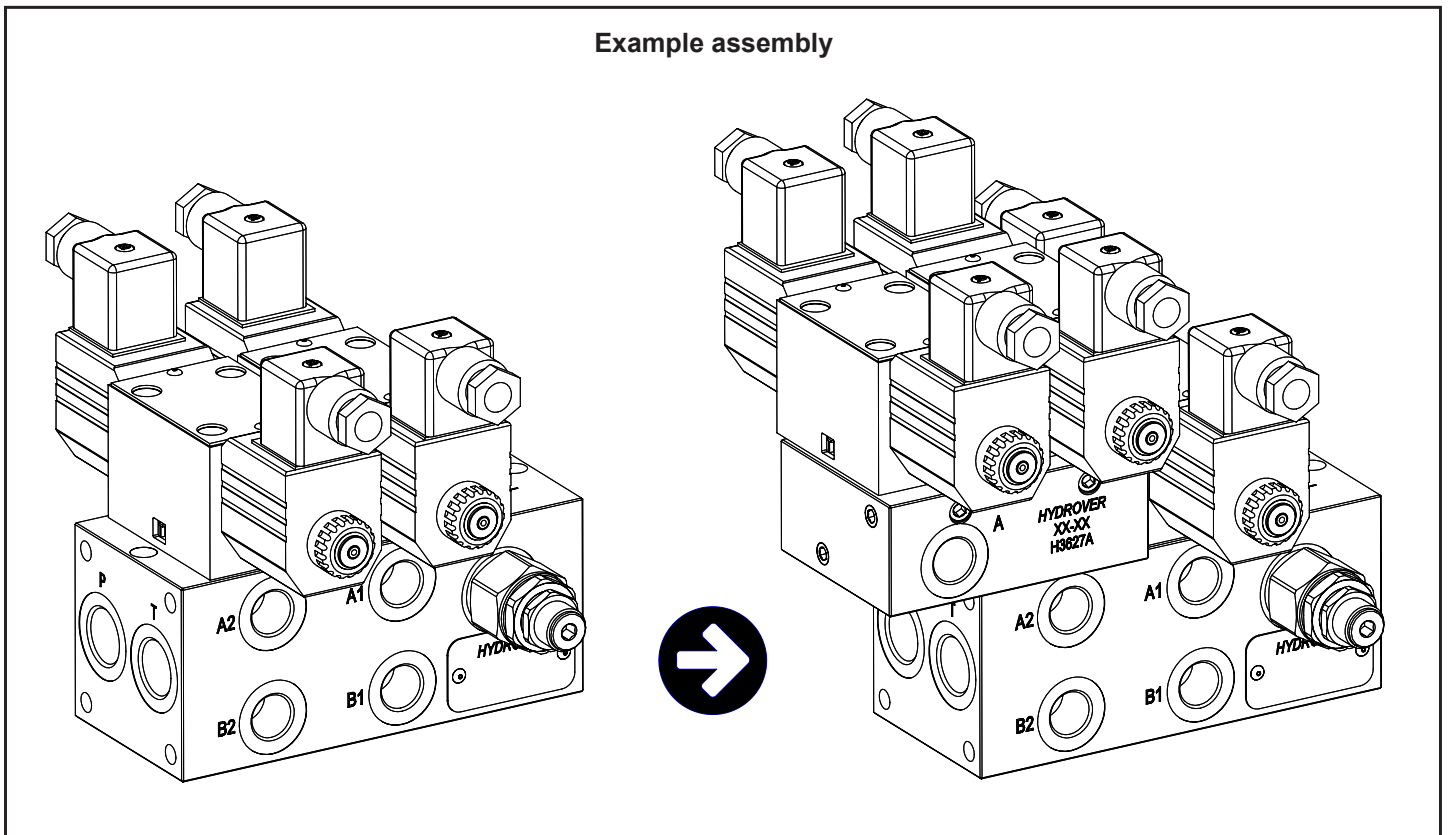
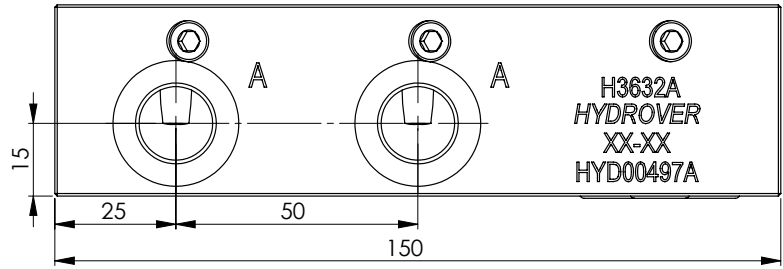
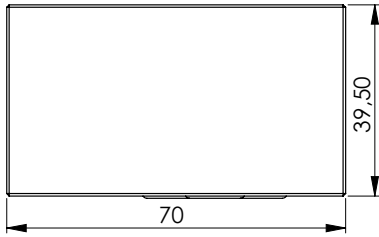


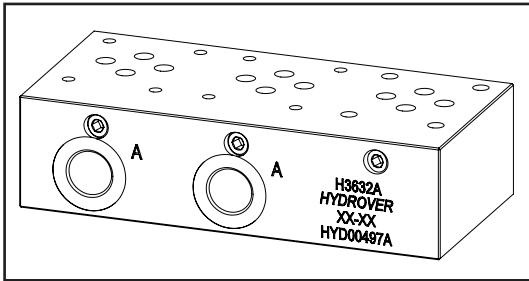
Plate for adding two Cetop 3 stations / side A-B ports 3/8" G **H3632**



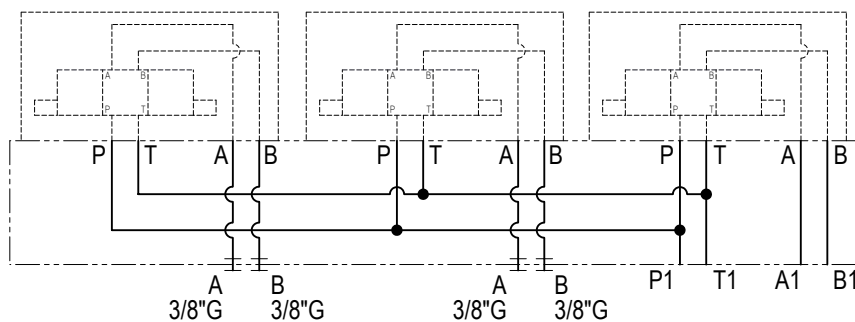
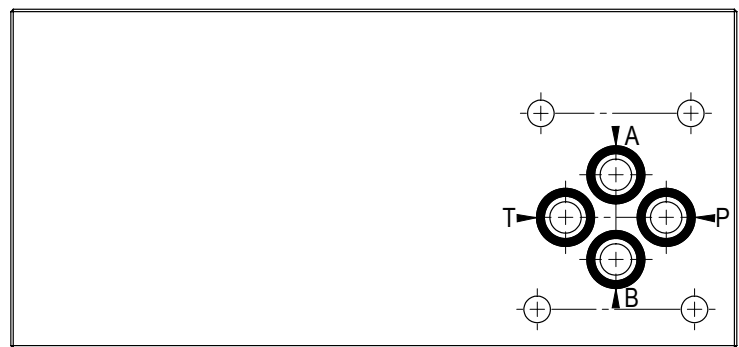
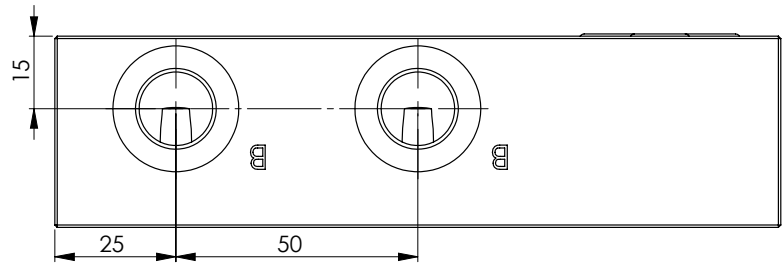
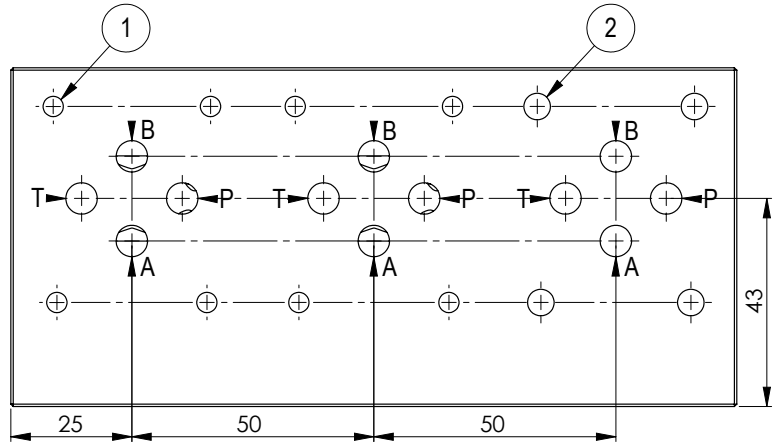
Dimensions in mm

Technical data

Max. pressure	250 bar
Weight	1,05 Kg



N°	Description	Q.ty
1	M5x10 for mounting	8
2	Ø 5,5 through hole for mounting	4
3	OR 108 i. Ø 8,73 cross section 1,78	4



Ordering code

H	3	6	3	2	A
---	---	---	---	---	---

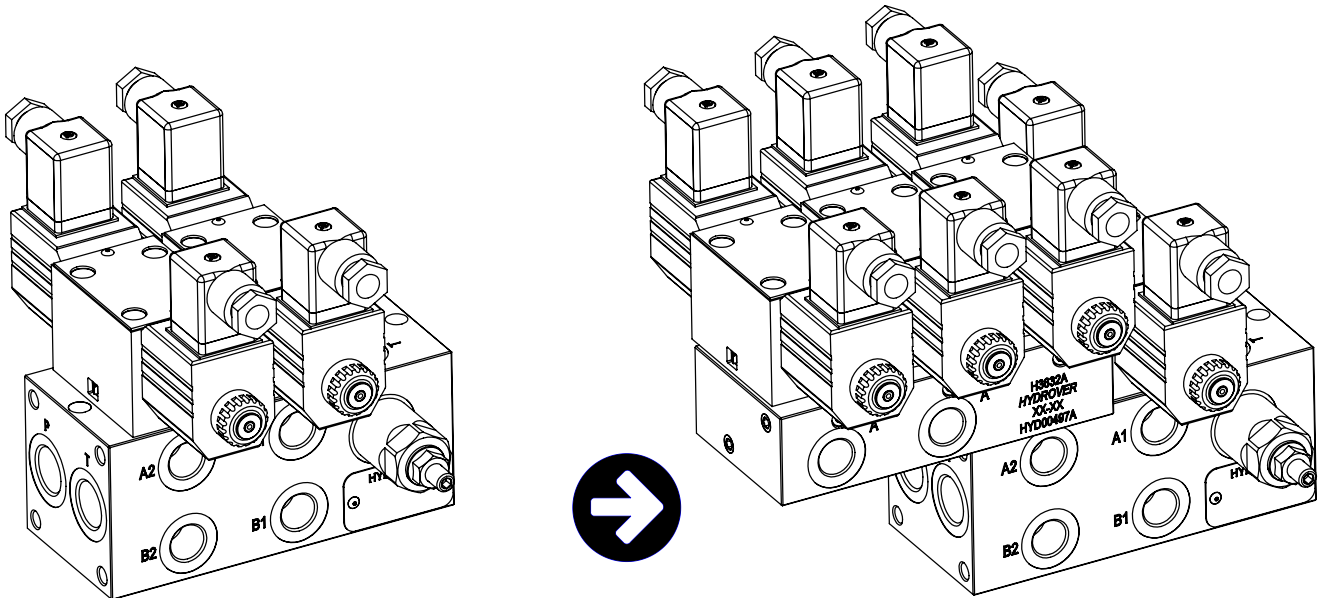
Hydrover product

Manifold material
Aluminium

Product series
36 series - Cetop 3 subplates

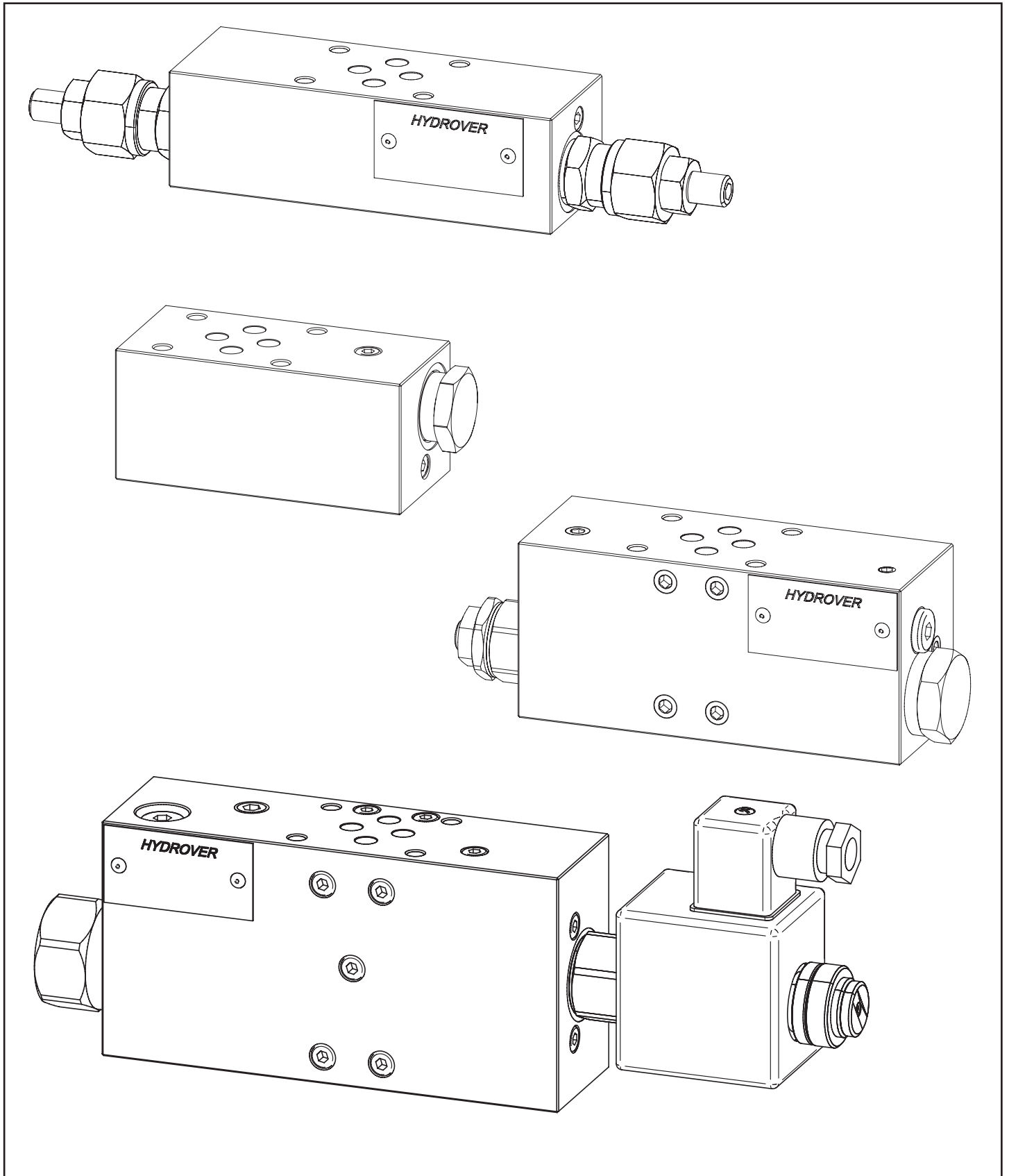
Product ID

Example assembly

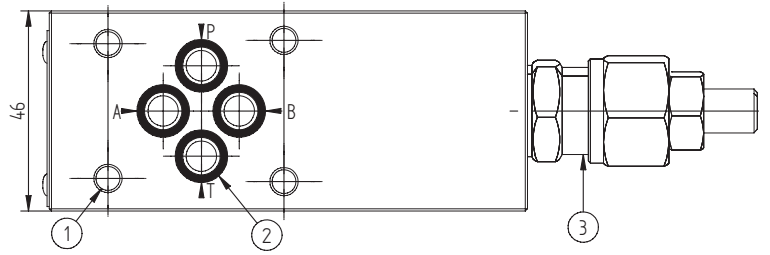
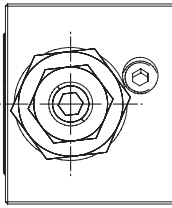


39 SERIES

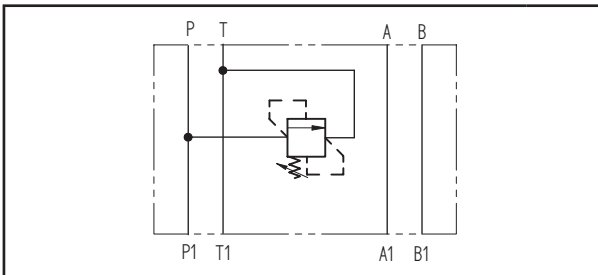
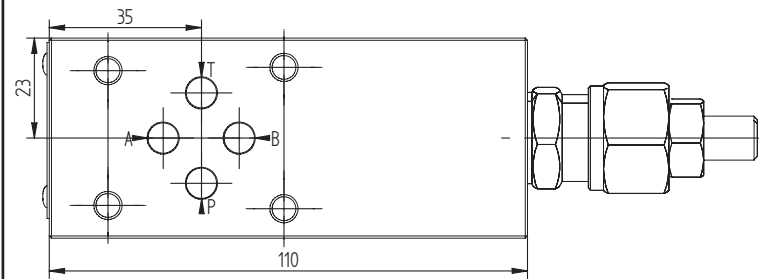
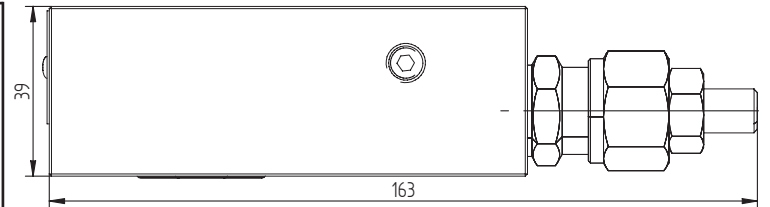
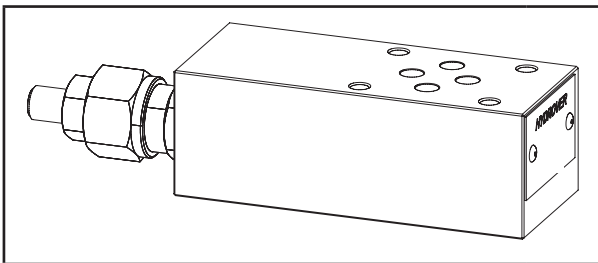
39 series - Cetop 3 modular valves



Dimensions in mm



Technical data	
Max. pressure	250 bar
Max. flow	30 lpm *
Weight	0,7 Kg
Manifold material	Aluminium



N°	Description	Q.ty
1	Ø 5,5 through hole for mounting	4
2	OR 108 i. Ø 8,73 cross section 1,78	4
3	Bosch Rexroth relief valve VS-30 * depicted with screw adjustment	1

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue

Ordering code

H	3	9	0	1	A	-	-	-
---	---	---	---	---	---	---	---	---

Hydrover product

Product series

39 series - Cetop 3 modular valves

Product ID

Relief valve adjustment pressure range *

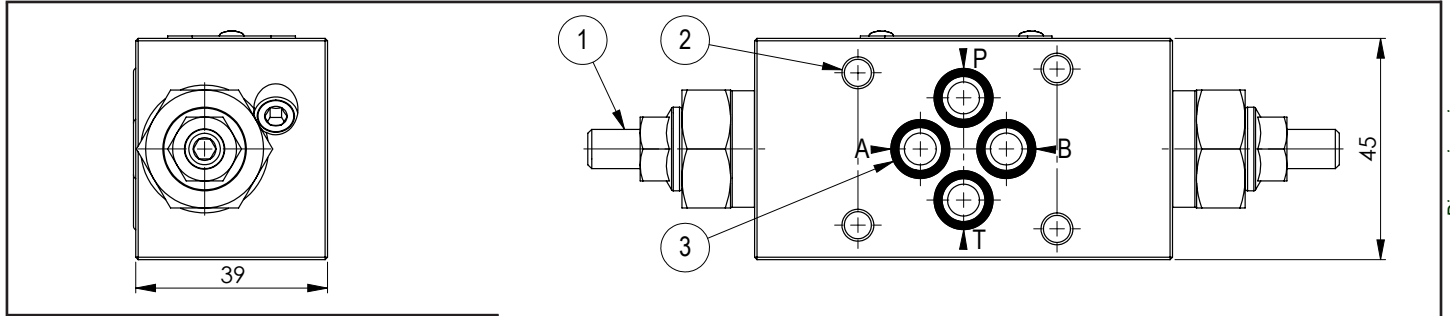
- 0 = 5-50 bar
- 1 = 30-100 bar
- 2 = 50-210 bar
- 3 = 100-350 bar

Relief valve adjustment type *

- S = Screw
- K = Knob

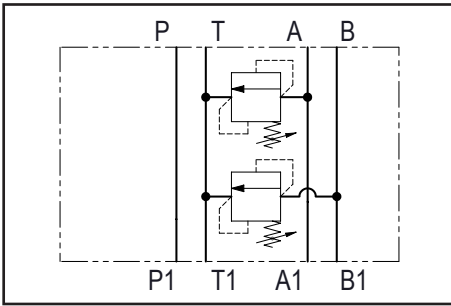
Manifold material
Aluminium

* Omit if not required. To order the product without the pressure relief cartridge valve, omit the pressure range and the adjustment type options: H3901A.
The manifold will still be provided with the corresponding cavity.



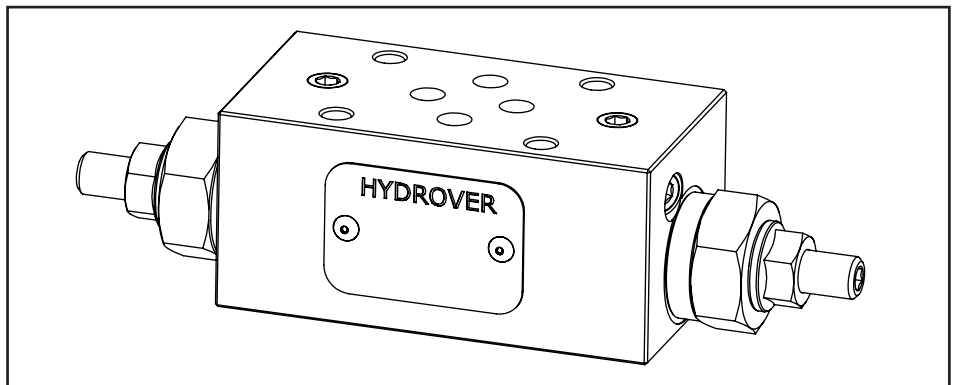
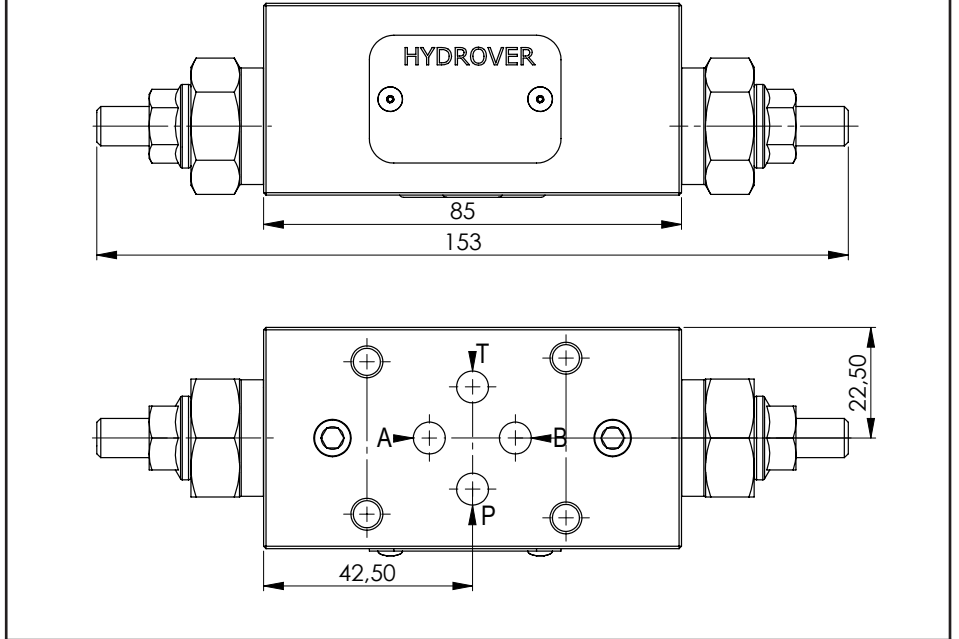
Dimensions in mm

Technical data	
Max. pressure	250 bar
Max. flow	20 lpm *
Weight	0,55 Kg
Manifold material	Aluminium



N°	Description	Q.ty
1	Bosch Rexroth relief valve VSBN-08A depicted depicted with screw adjustment *	2
2	Ø 5,5 through hole for mounting	4
3	OR 108 i. Ø 8,73 cross section 1,78	4

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue



Ordering code

H	3	9	4	6	A	-	-	-	-	-
---	---	---	---	---	---	---	---	---	---	---

Hydrover product

Product series

39 series - Cetop 3 modular valves

Product ID

Manifold material

Aluminium

Relief valve adjustment pressure range on B *

- 0 = 10-70 bar
- 1 = 35-140 bar
- 2 = 105-210 bar
- 3 = 175-350 bar
- 3 = 35-350 bar (knob reg.)

Relief valve adjustment type on B *

- S = Screw
- K = Knob

Relief valve adjustment pressure range on A *

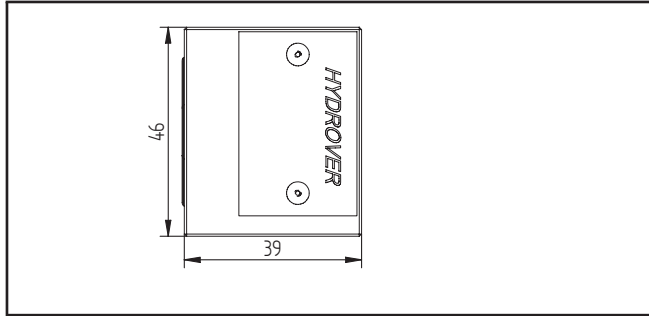
- 0 = 10-70 bar
- 1 = 35-140 bar
- 2 = 105-210 bar
- 3 = 175-350 bar
- 3 = 35-350 bar (knob reg.)

Relief valve adjustment type on A *

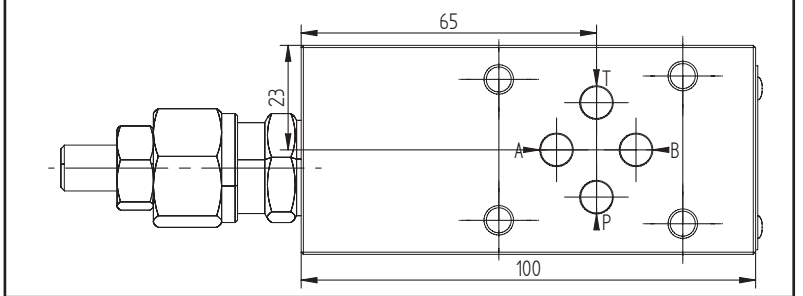
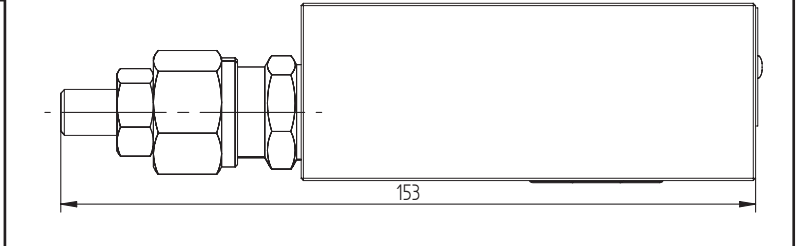
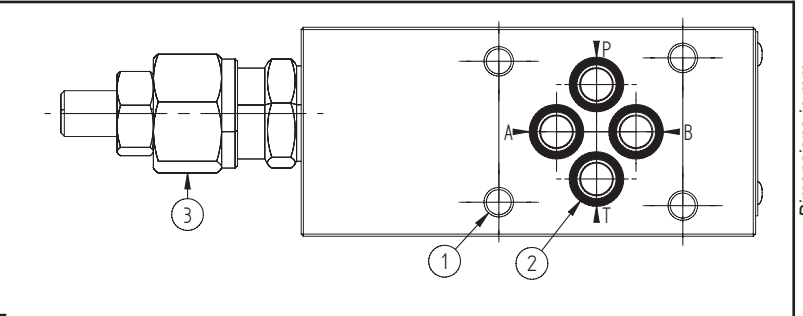
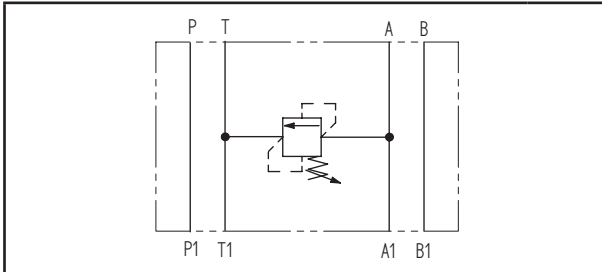
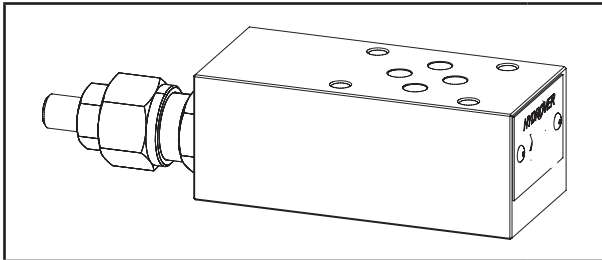
- S = Screw
- K = Knob

* Omit if not required. To order the product without the pressure relief cartridge valves, omit the pressure range and the adjustment type options for A and B: H3946A.
 The manifold will still be provided with the corresponding cavities.
 To inhibit a function, replace the related valve options with TL: eg H3946A-S2-TL.
 In the cavity it will be mounted a long plug.

Valve	Cavity	Long plug code
Pressure relief valve VSBN-08A	CA-08A-2N	0489A2005600000



Technical data	
Max. pressure	250 bar
Max. flow	30 lpm *
Weight	0,6 Kg
Manifold material	Aluminium



Dimensions in mm

N°	Description	Q.ty
1	Ø 5,5 through hole for mounting	4
2	OR 108 i. Ø 8,73 cross section 1,78	4
3	Bosch Rexroth relief valve VS-30 * depicted with screw adjustment	1

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue



Ordering code

H	3	9	0	6	A	-	-	-
---	---	---	---	---	---	---	---	---

Hydrover product

Product series

39 series - Cetop 3 modular valves

Product ID

Relief valve adjustment pressure range *

- 0 = 5-50 bar
- 1 = 30-100 bar
- 2 = 50-210 bar
- 3 = 100-350 bar

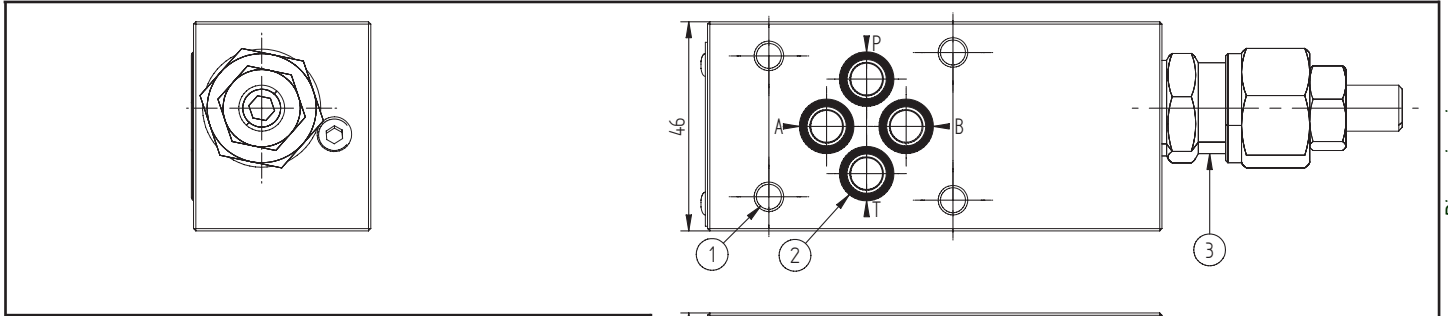
Relief valve adjustment type *

- S = Screw
- K = Knob

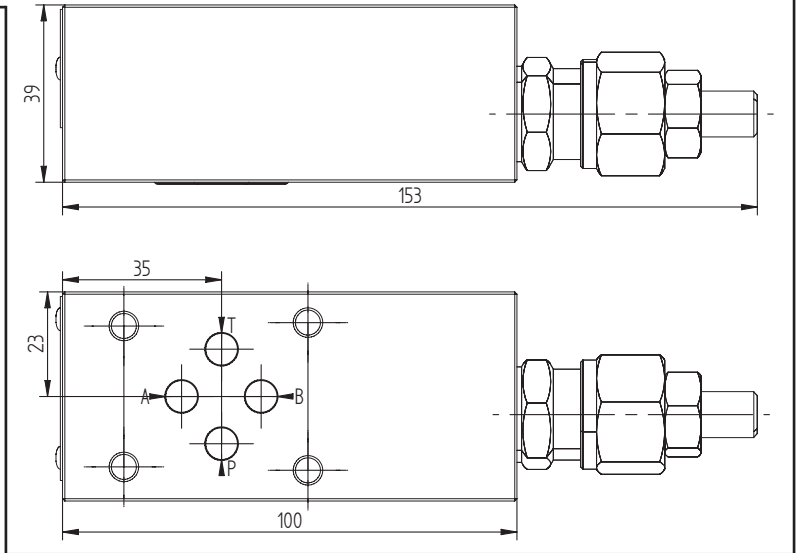
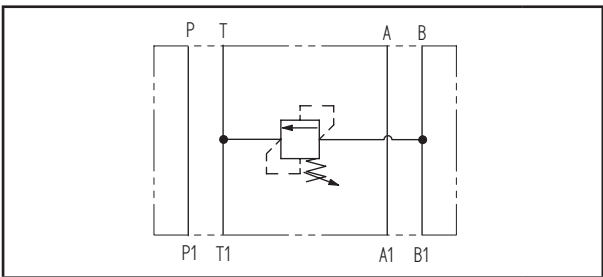
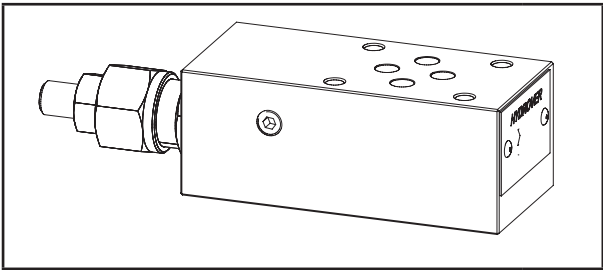
Manifold material
Aluminium

* Omit if not required. To order the product without the pressure relief cartridge valve, omit the pressure range and the adjustment type options: H3906A.
The manifold will still be provided with the corresponding cavity.

Dimensions in mm



Technical data	
Max. pressure	250 bar
Max. flow	30 lpm *
Weight	Aluminium 0,6 Kg
	Steel 1,4 Kg
Manifold material	Aluminium or steel



N°	Description	Q.ty
1	Ø 5,5 through hole for mounting	4
2	OR 108 i. Ø 8,73 cross section 1,78	4
3	Bosch Rexroth relief valve VS-30 * depicted with screw adjustment	1

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue



Ordering code

H	3	9	0	5	_	-	_	_
---	---	---	---	---	---	---	---	---

Hydrover product

Product series

39 series - Cetop 3 modular valves

Product ID

Relief valve adjustment pressure range *

- 0 = 5-50 bar
- 1 = 30-100 bar
- 2 = 50-210 bar
- 3 = 100-350 bar

Relief valve adjustment type *

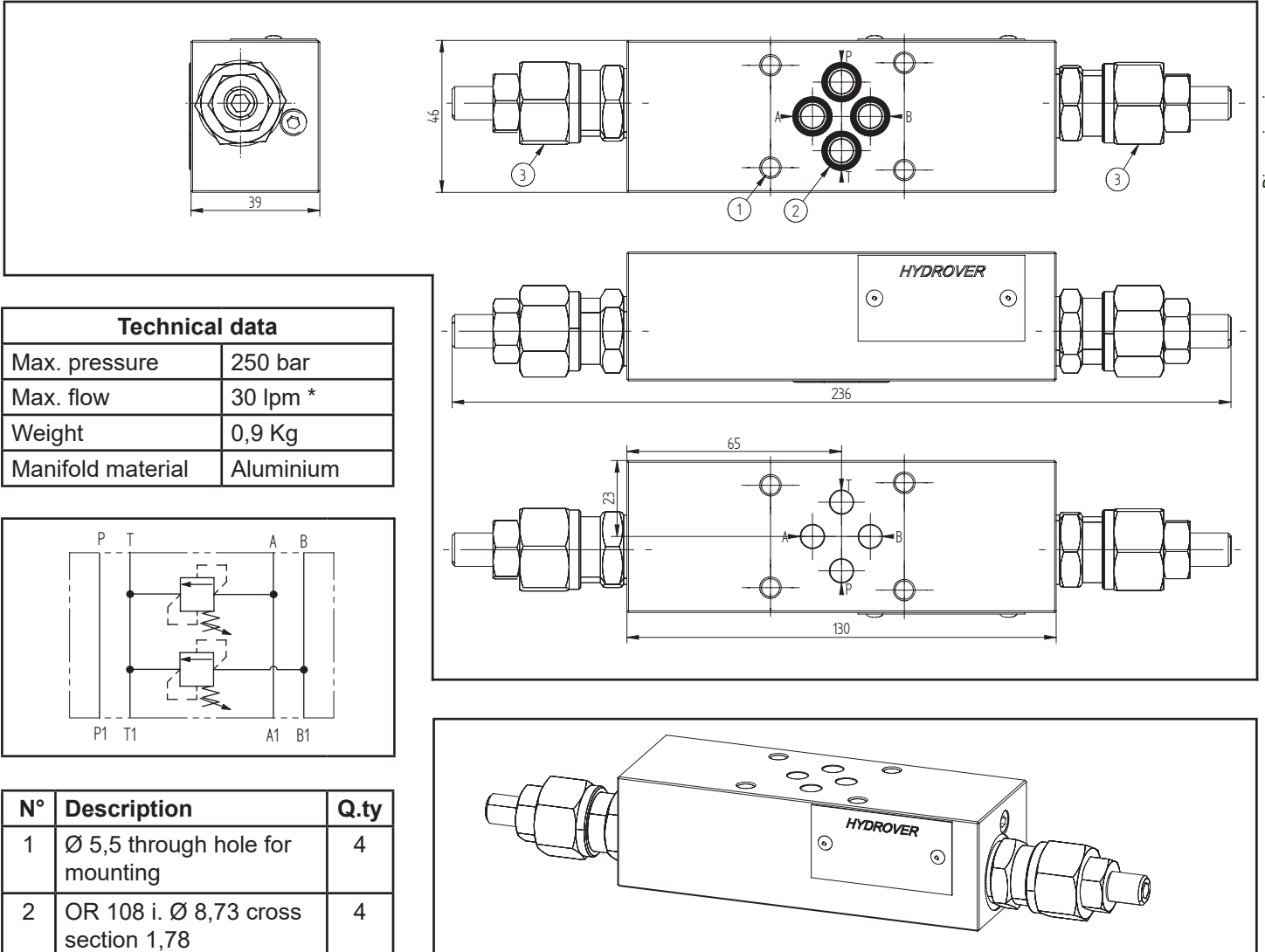
- S = Screw
- K = Knob

Manifold material

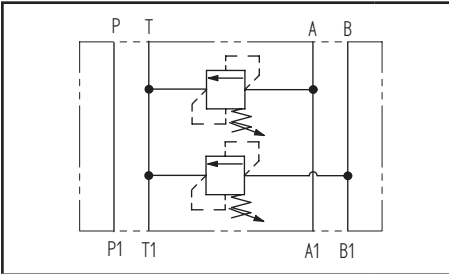
- A = Aluminium
- S = Steel

* Omit if not required. To order the product without the pressure relief cartridge valve, omit the pressure range and the adjustment type options: H3905A.
The manifold will still be provided with the corresponding cavity.

Dimensions in mm



Technical data	
Max. pressure	250 bar
Max. flow	30 lpm *
Weight	0,9 Kg
Manifold material	Aluminium



N°	Description	Q.ty
1	Ø 5,5 through hole for mounting	4
2	OR 108 i. Ø 8,73 cross section 1,78	4
3	Bosch Rexroth relief valve VS-30 * depicted with screw adjustment	2

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue



Ordering code

H	3	9	0	4	A	-	-	-	-	-
---	---	---	---	---	---	---	---	---	---	---

Hydrover product

Product series

39 series - Cetop 3 modular valves

Product ID

Manifold material

Aluminium

Relief valve adjustment pressure range on B *

- 0 = 5-50 bar
- 1 = 30-100 bar
- 2 = 50-210 bar
- 3 = 100-350 bar

Relief valve adjustment type on B *

- S = Screw
- K = Knob

Relief valve adjustment pressure range on A *

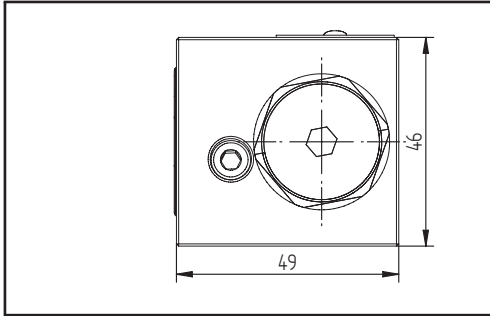
- 0 = 5-50 bar
- 1 = 30-100 bar
- 2 = 50-210 bar
- 3 = 100-350 bar

Relief valve adjustment type on A *

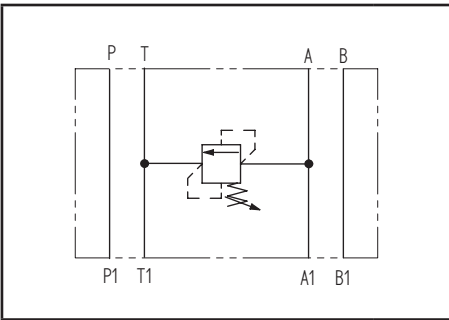
- S = Screw
- K = Knob

* Omit if not required. To order the product without the pressure relief cartridge valves, omit the pressure range and the adjustment type options for A and B: H3904A.
The manifold will still be provided with the corresponding cavities.

Dimensions in mm

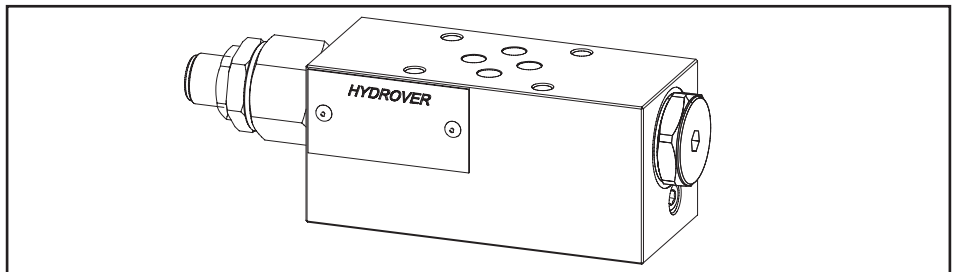
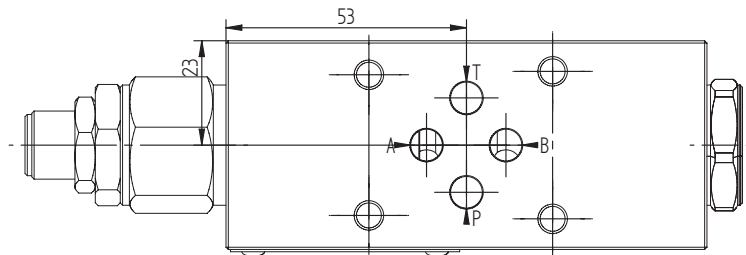
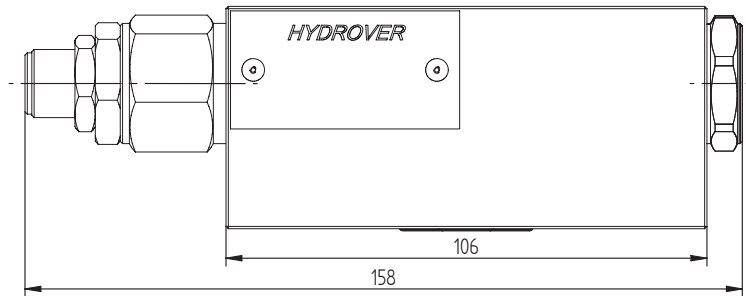
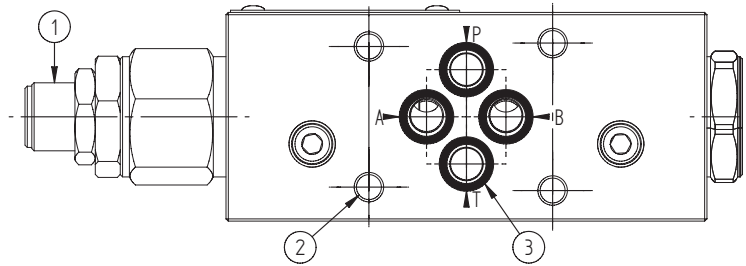


Technical data	
Max. pressure	250 bar
Max. flow	70 lpm *
Weight	0,9 Kg
Manifold material	Aluminium



N°	Description	Q.ty
1	Bosch Rexroth relief valve VMD1.070 *	1
2	Ø 5,5 through hole for mounting	4
3	OR 108 i. Ø 8,73 cross section 1,78	4

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue





Ordering code

H	3	9	1	8	A	-	-	-
---	---	---	---	---	---	---	---	---

Hydrover product

Product series

39 series - Cetop 3 modular valves

Product ID

Relief valve adjustment pressure range *

- 0 = 10-60 bar
- 1 = 40-110 bar
- 2 = 110-220 bar
- 3 = 220-260 bar

Relief valve adjustment type *

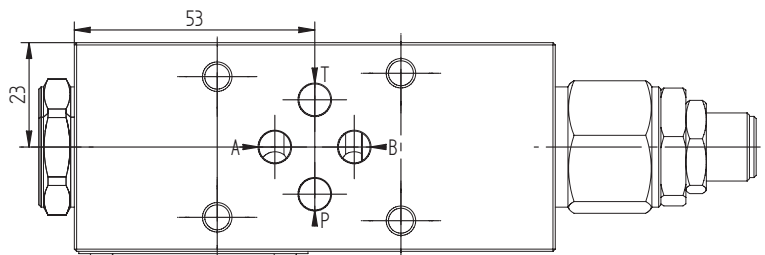
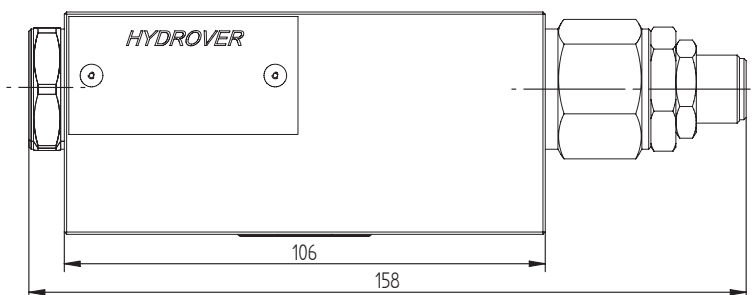
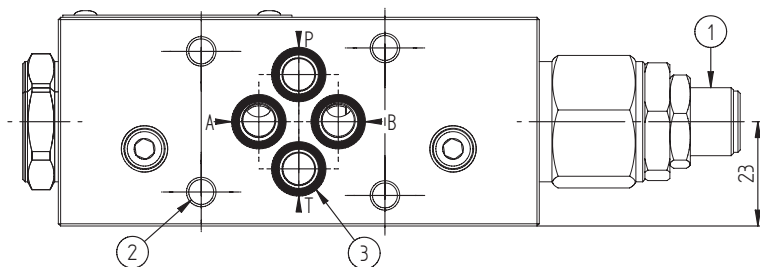
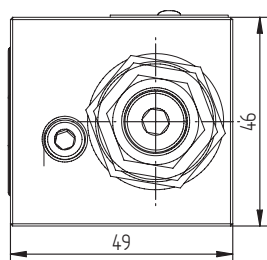
S = Screw

Manifold material
Aluminium

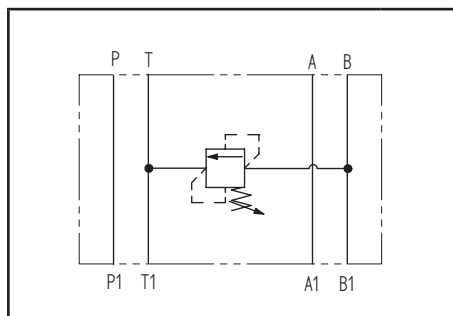
* Omit if not required. To order the product without the pressure relief cartridge valve, omit the pressure range and the adjustment type options: H3918A.
The manifold will still be provided with the corresponding cavity.

Cetop 3 modular relief valve on B / 70 lpm **H3919**

Dimensions in mm

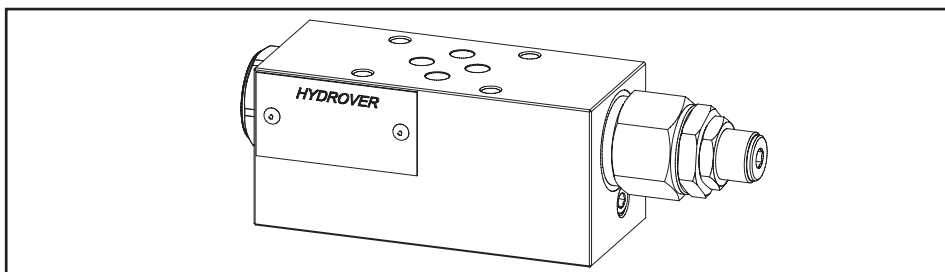


Technical data	
Max. pressure	250 bar
Max. flow	70 lpm *
Weight	0,9 Kg
Manifold material	Aluminium



N°	Description	Q.ty
1	Bosch Rexroth relief valve VMD1.070 *	1
2	Ø 5,5 through hole for mounting	4
3	OR 108 i. Ø 8,73 cross section 1,78	4

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue



Ordering code

H	3	9	1	9	A	-	-	-
---	---	---	---	---	---	---	---	---

Hydrover product

Product series

39 series - Cetop 3 modular valves

Product ID

Relief valve adjustment pressure range *

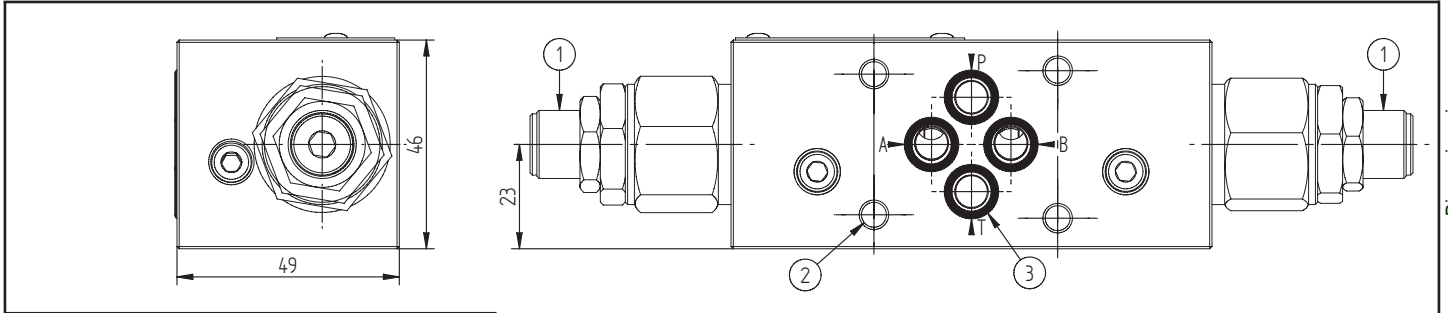
- 0 = 10-60 bar
- 1 = 40-110 bar
- 2 = 110-220 bar
- 3 = 220-260 bar

Relief valve adjustment type *

S = Screw

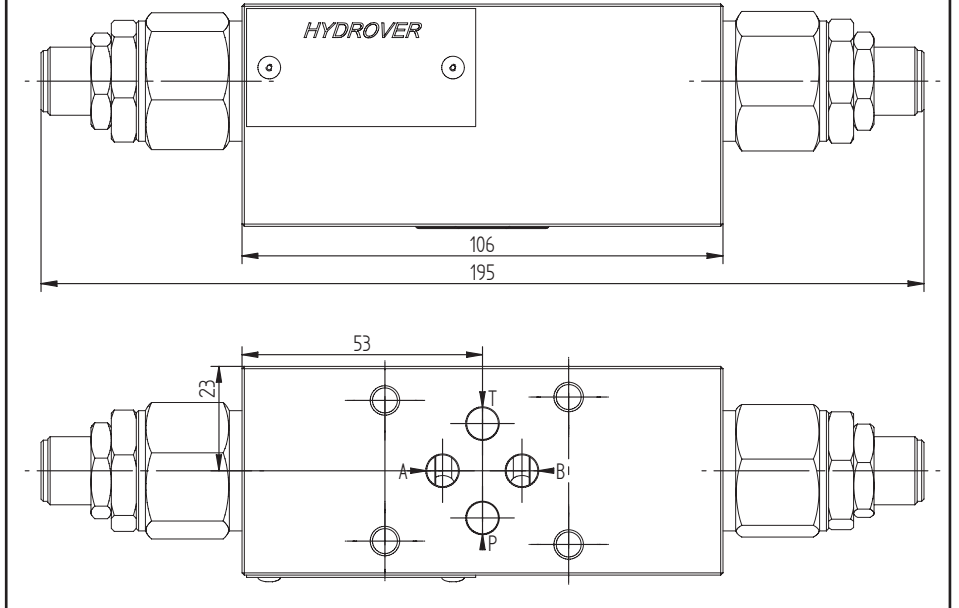
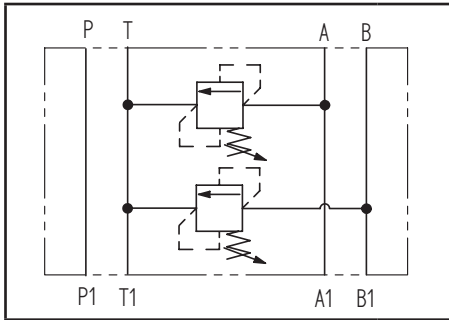
Manifold material
Aluminium

* Omit if not required. To order the product without the pressure relief cartridge valve, omit the pressure range and the adjustment type options: H3919A.
The manifold will still be provided with the corresponding cavity.



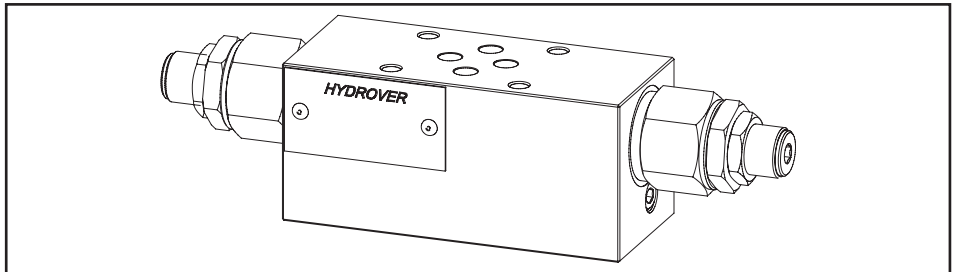
Dimensions in mm

Technical data	
Max. pressure	250 bar
Max. flow	70 lpm *
Weight	1 Kg
Manifold material	Aluminium



N°	Description	Q.ty
1	Bosch Rexroth relief valve VMD1.070 *	2
2	Ø 5,5 through hole for mounting	4
3	OR 108 i. Ø 8,73 cross section 1,78	4

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue





Ordering code

H	3	9	2	0	A	-	-	-	-	-
---	---	---	---	---	---	---	---	---	---	---

Hydrover product

Product series

39 series - Cetop 3 modular valves

Product ID

Manifold material

Aluminium

**Relief valve
adjustment pressure range
on B ***

- 0 = 10-60 bar
- 1 = 40-110 bar
- 2 = 110-220 bar
- 3 = 220-260 bar

**Relief valve
adjustment type on B ***

S = Screw

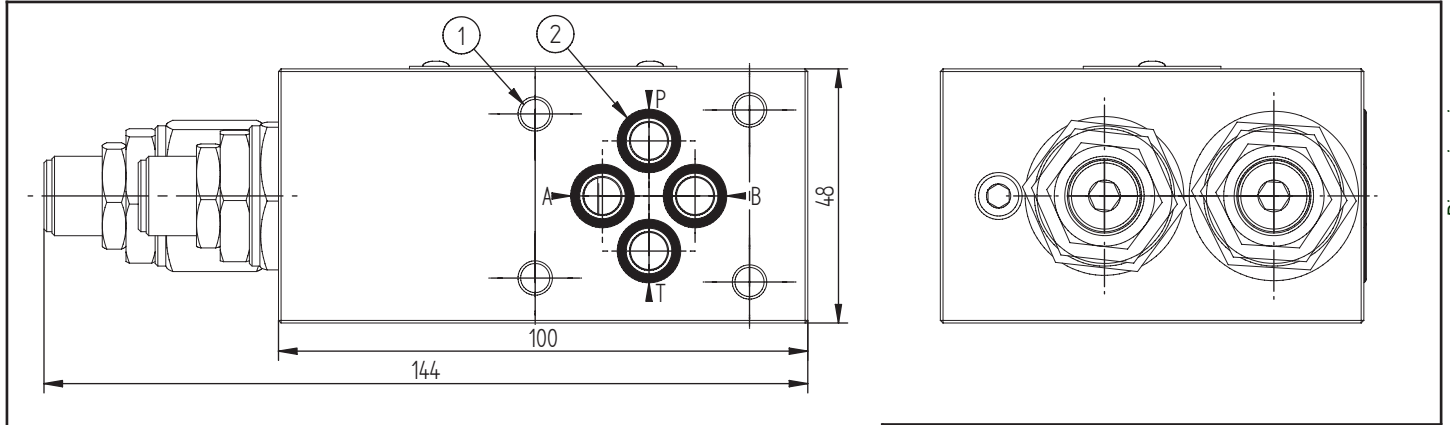
**Relief valve
adjustment pressure range on A ***

- 0 = 10-60 bar
- 1 = 40-110 bar
- 2 = 110-220 bar
- 3 = 220-260 bar

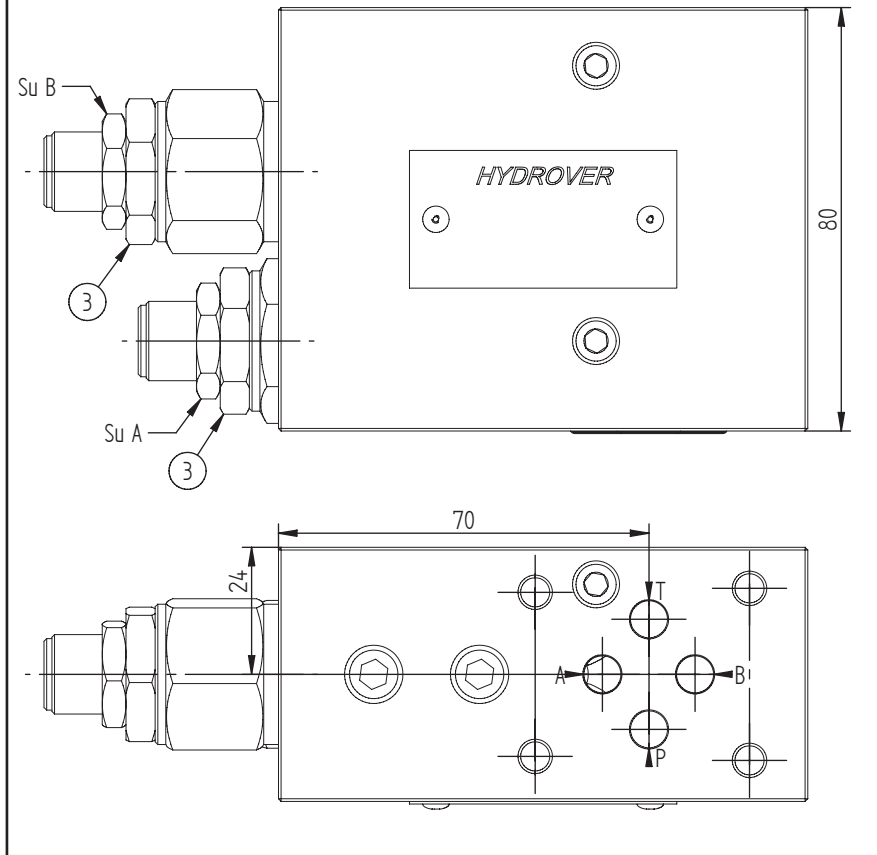
**Relief valve
adjustment type on A ***

S = Screw

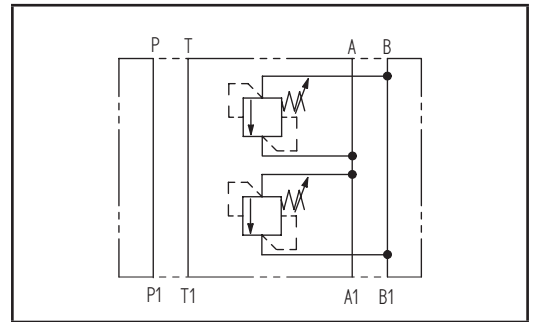
* Omit if not required. To order the product without the pressure relief cartridge valves, omit the pressure range and the adjustment type options for A and B: H3920A.
The manifold will still be provided with the corresponding cavities.



Dimensions in mm

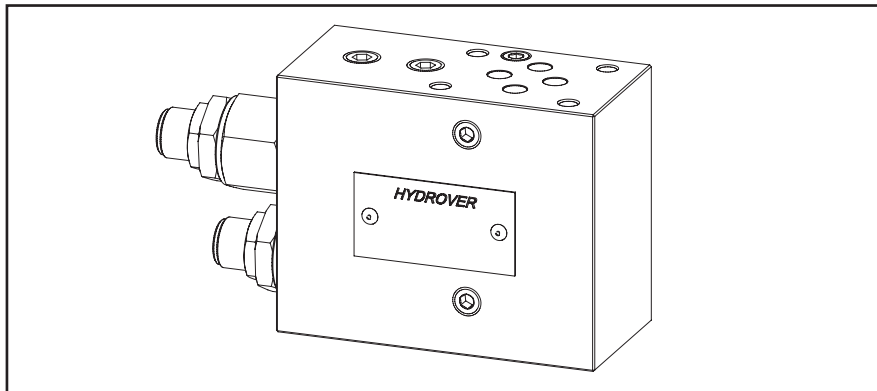


Technical data	
Max. pressure	250 bar
Max. flow	50 lpm *
Weight	1,3 Kg
Manifold material	Aluminium



N°	Description	Q.ty
1	Ø 5,5 through hole for mounting	4
2	OR 108 i. Ø 8,73 cross section 1,78	4
3	Bosch Rexroth relief valve VMD1.070 *	2

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue





Ordering code

H	3	9	1	7	A	-	-	-	-	-
---	---	---	---	---	---	---	---	---	---	---

Hydrover product

Product series

39 series - Cetop 3 modular valves

Product ID

Manifold material

Aluminium

Relief valve adjustment pressure range on B *

- 0 = 10-60 bar
- 1 = 40-110 bar
- 2 = 110-220 bar
- 3 = 220-260 bar

Relief valve adjustment type on B *

S = Screw

Relief valve adjustment pressure range on A *

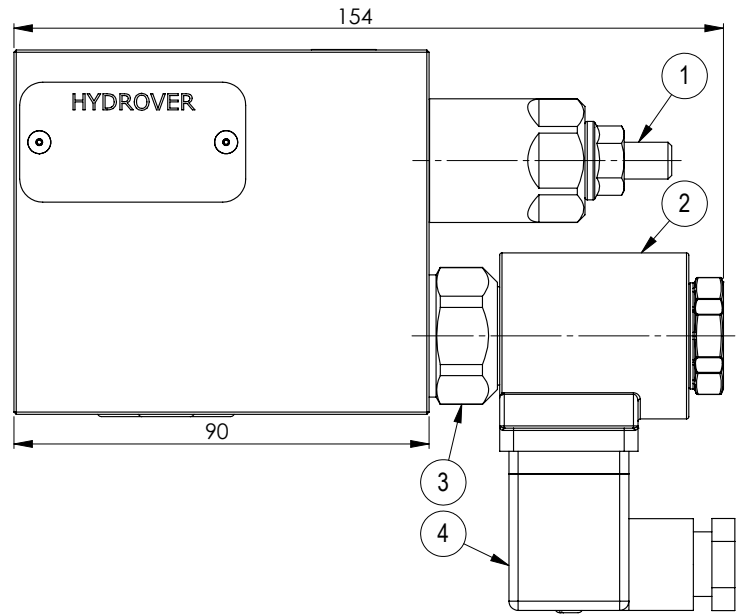
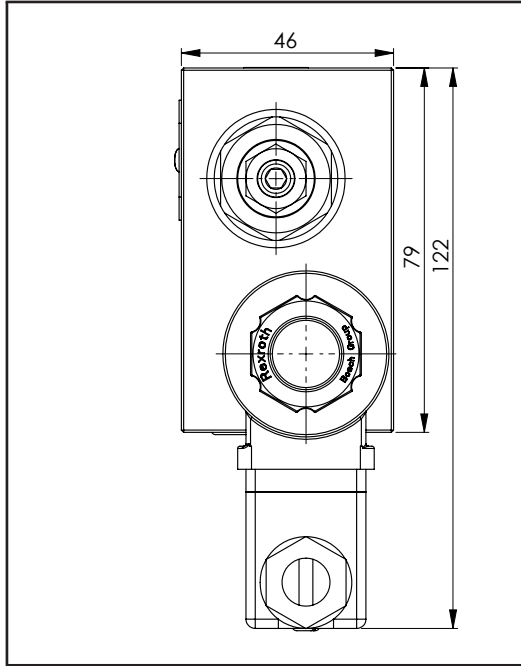
- 0 = 10-60 bar
- 1 = 40-110 bar
- 2 = 110-220 bar
- 3 = 220-260 bar

Relief valve adjustment type on A *

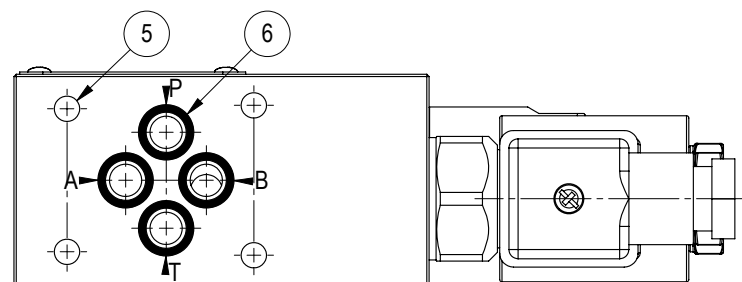
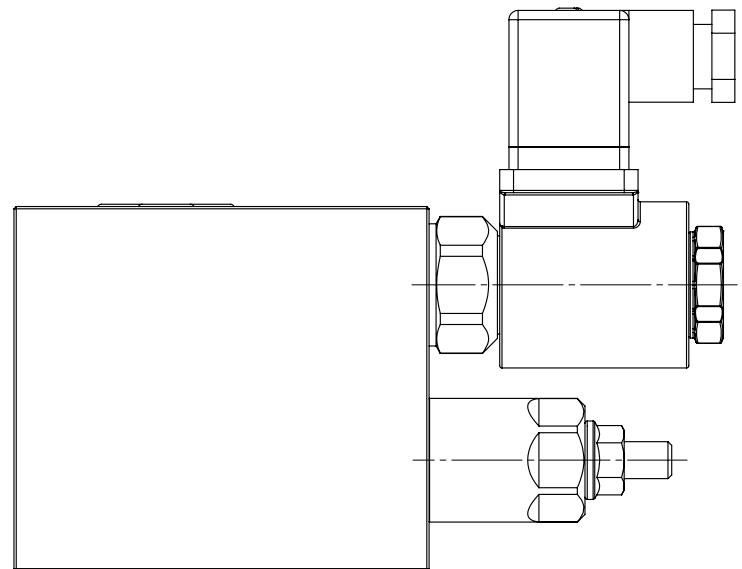
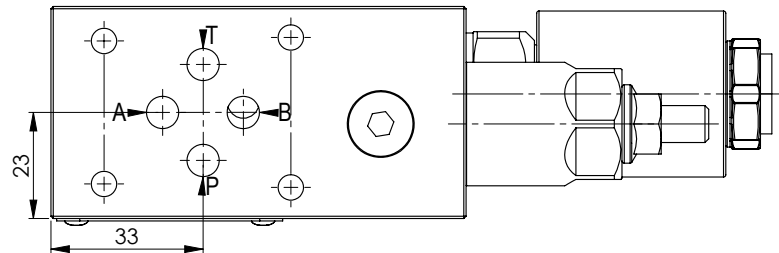
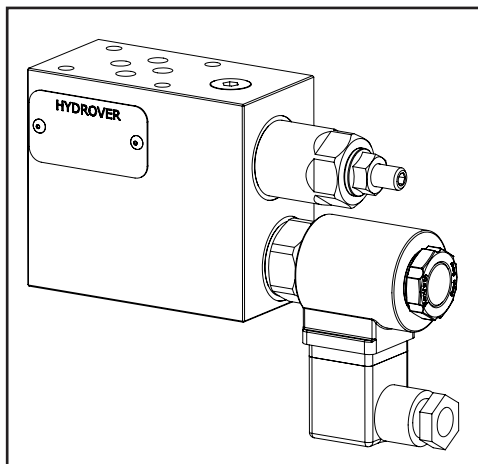
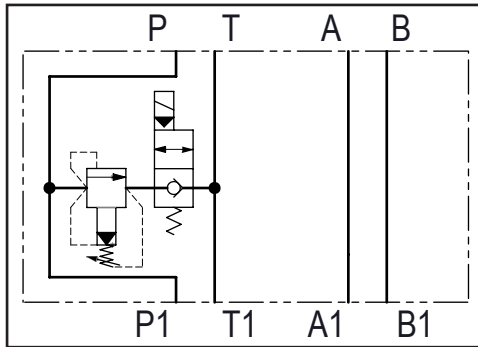
S = Screw

* Omit if not required. To order the product without the pressure relief cartridge valves, omit the pressure range and the adjustment type options for A and B: H3917A.
 The manifold will still be provided with the corresponding cavities.
 To inhibit a function, replace the related valve options with TL: eg H3917A-TL-S2.
 In the cavity it will be mounted a long plug.

Valve	Cavity	Long plug code
Pressure relief valve VMD1.070	CA-10A-2N	0489A2008500000



Technical data	
Max. pressure	250 bar
Max. flow	50 lpm *
Weight	1,4 Kg
Manifold material	Aluminium



Ordering code

H 3 9 7 7 A - - - - -

Hydrover product

Product series

39 series - Cetop 3 modular valves

Product ID

Manifold material

Aluminium

Relief valve adjustment type *

Screw = S
Knob = K

Relief valve adjustment pressure range *

35-140 bar = 1
70-280 bar = 2
140-420 bar = 3
35-350 bar (adj. knob) = 3

Solenoid valve coil connection *

1 = DIN 43650
ISO 4400

Solenoid valve coil voltage *

OB = 12V DC
OC = 24V DC
OD = 48V DC
OV = 24V RAC
OU = 110V RAC
AH = 230V RAC

Solenoid valve manual override *

E0 = Without
EP = Push (NA, 2A)
EV = Screw (NC, 2C)
EG = Push and twist (NA, 2A)

Solenoid valve spool type *

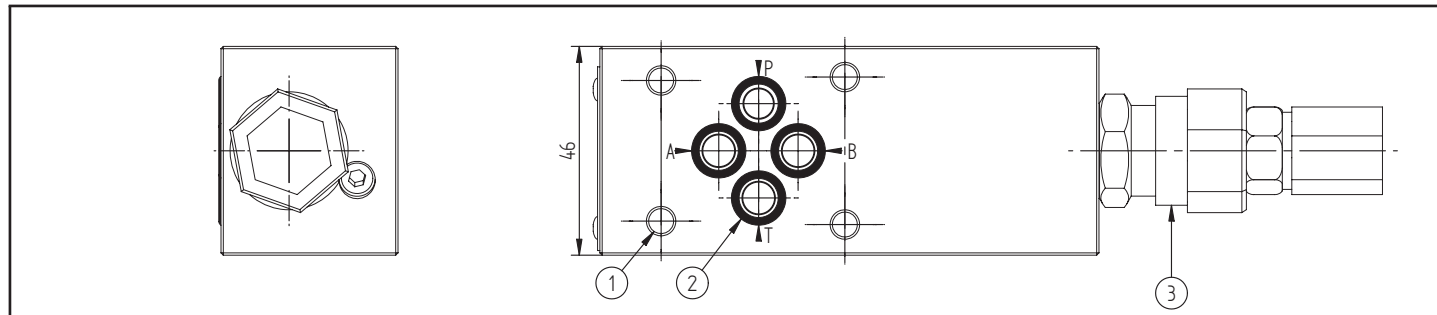
NA = Normally open
NC = Normally closed

* Omit if not required. For example to order the product without the relief cartridge valve, omit the pressure range and adjustment type options: eg. H3977A-NC-E0-OC1.
The manifold will still be provided with the corresponding cavity.

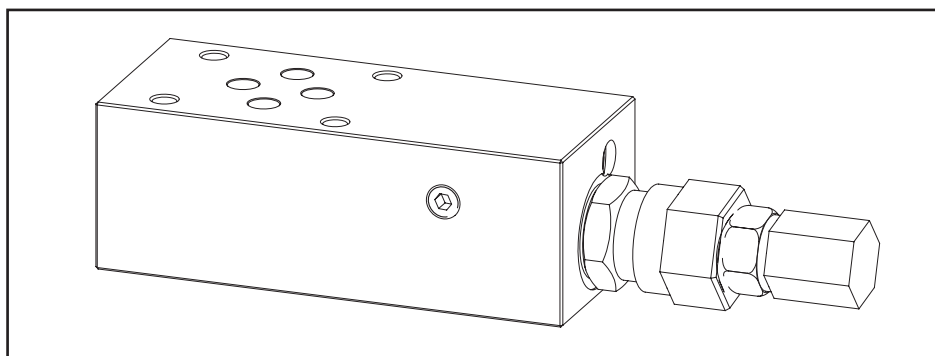
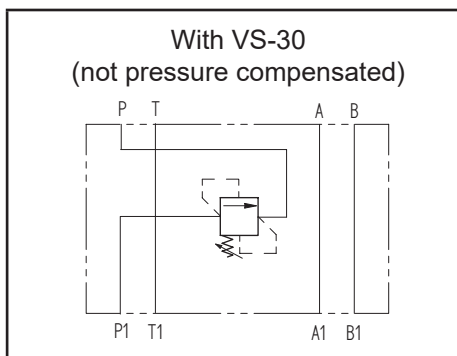
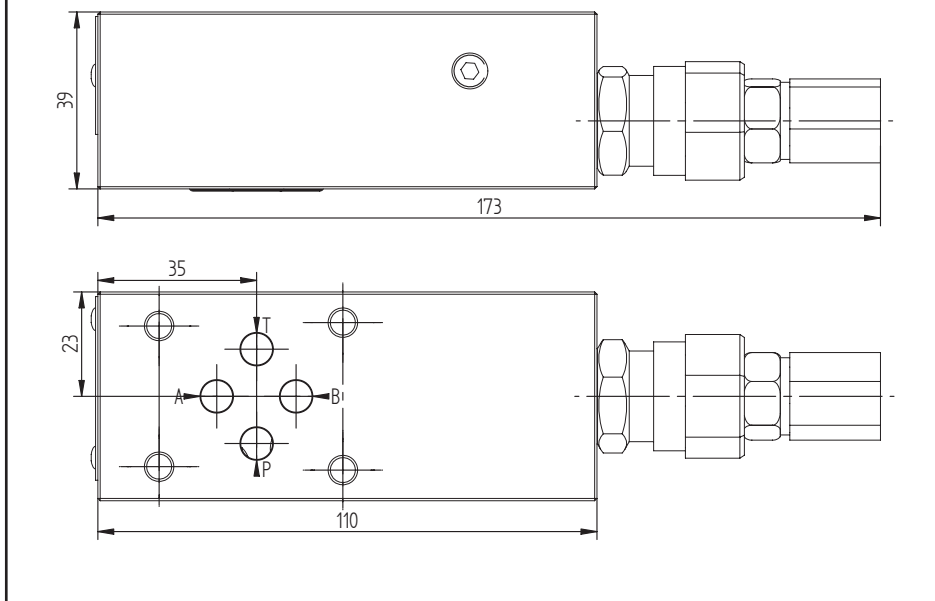
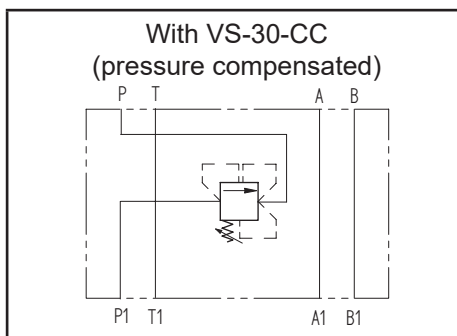
N°	Description	Q.ty
1	Bosch Rexroth relief valve VSPN-10A* depicted with screw adjustment	1
2	Bosch Rexroth coil D36 - CLASS H DIN 43650 ISO 4400 *	1
3	Bosch Rexroth solenoid valve VEI-16-10A-NC OD.15.05.36-Y-000000 or VEI-16-10A-NA OD.15.06.36-Y-000000 depicted without manual override *	1
4	Connector DIN 43650 ISO 4400	1
5	Ø 5,5 through hole for mounting	4
6	OR 108 i. Ø 8,73 cross section 1,78	4

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue

Dimensions in mm



Technical data	
Max. pressure	250 bar
Max. flow	30 lpm *
Weight	0,7 Kg
Manifold material	Aluminium



N°	Description	Q.ty
1	Ø 5,5 through hole for mounting	4
2	OR 108 i. Ø 8,73 cross section 1,78	4
3	Bosch Rexroth pressure compensated valve VS-30-CC * (as depicted) It's possible to use a Bosch Rexroth non pressure compensated valve VS-30 * in case it is acceptable to add to the set pressure the pressure necessary for the second branch.	1

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue



Ordering code

H	3	9	1	1	A	-	_	_	_
---	---	---	---	---	---	---	---	---	---

Hydrover product

Product series

39 series - Cetop 3 modular valves

Product ID

Manifold material

Aluminium

S =
M =

Valve type *

VS-30-CC

VS-30

Valve adjustment pressure range *

0 = 5-50 bar

1 = 30-100 bar

2 = 50-210 bar

3 = 100-350 bar

Valve adjustment type *

S =

Screw

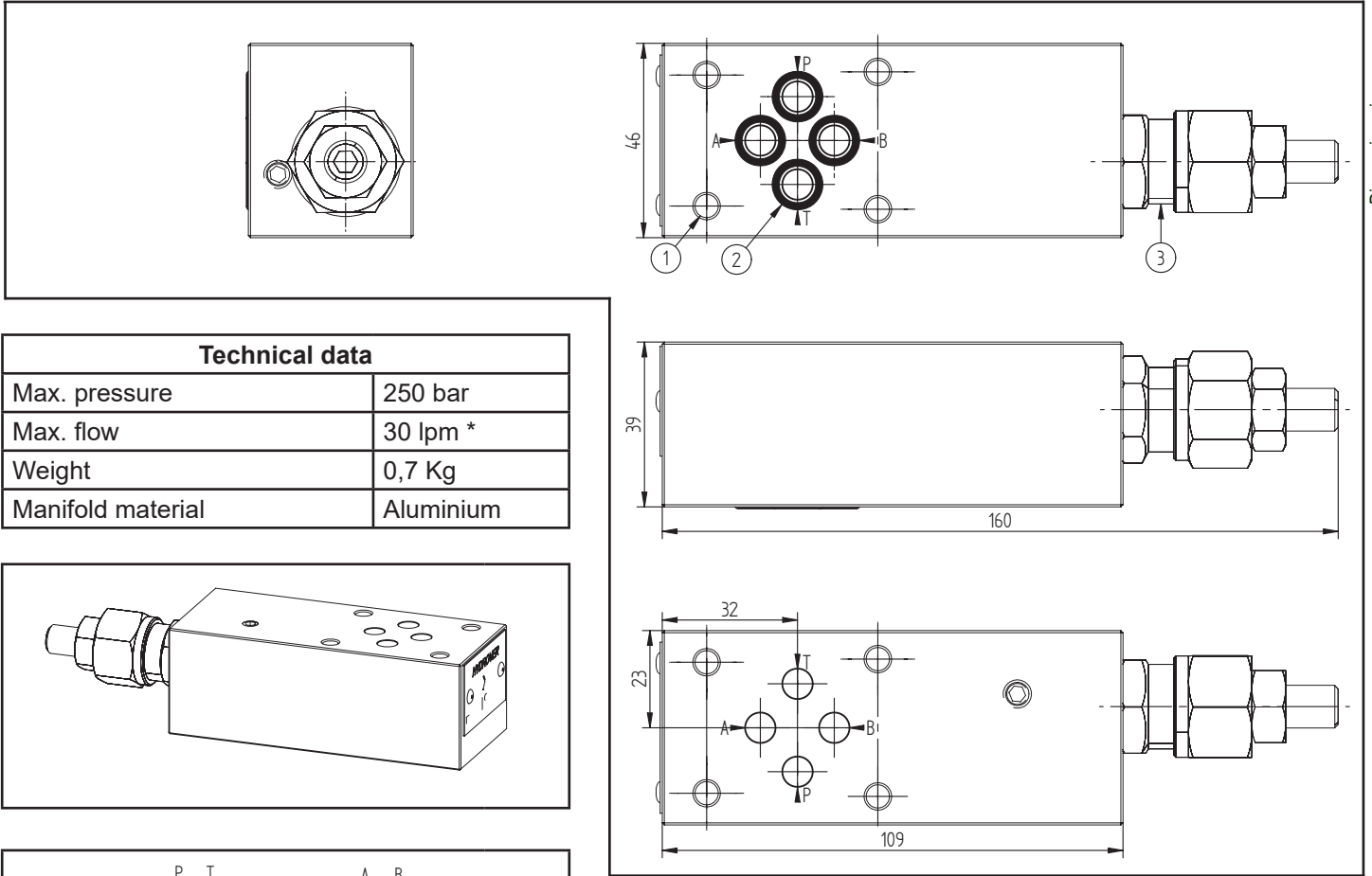
K =

Knob (only for VS-30)

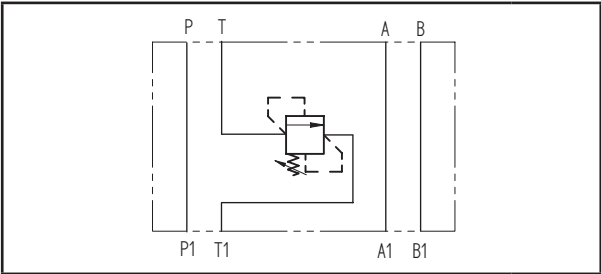
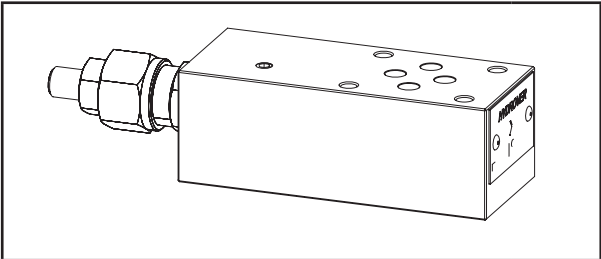
* Omit if not required. To order the product without the cartridge valve, omit the adjustment type, valve pressure range and valve type options: H3911A.

The manifold will still be provided with the corresponding cavity.

Cetop 3 modular relief valve for back pressure on T **H3909**



Technical data	
Max. pressure	250 bar
Max. flow	30 lpm *
Weight	0,7 Kg
Manifold material	Aluminium



N°	Description	Q.ty
1	Ø 5,5 through hole for mounting	4
2	OR 108 i. Ø 8,73 cross section 1,78	4
3	Bosch Rexroth relief valve VS-30 * depicted with screw adjustment	1

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue



Ordering code

H	3	9	0	9	A	-	-	-
---	---	---	---	---	---	---	---	---

Hydrover product

Product series

39 series - Cetop 3 modular valves

Product ID

Relief valve adjustment pressure range *

- 0 = 5-50 bar
- 1 = 30-100 bar
- 2 = 50-210 bar
- 3 = 100-350 bar

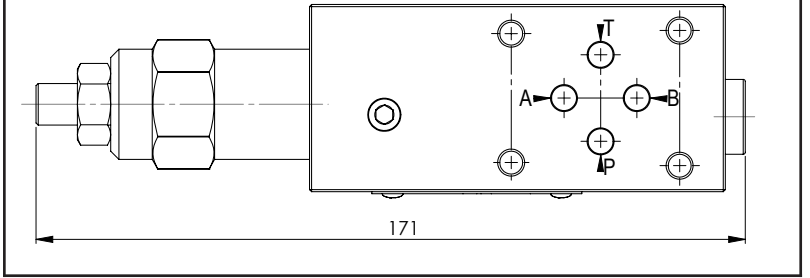
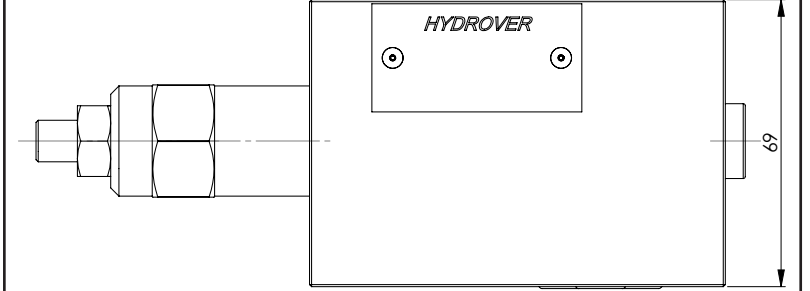
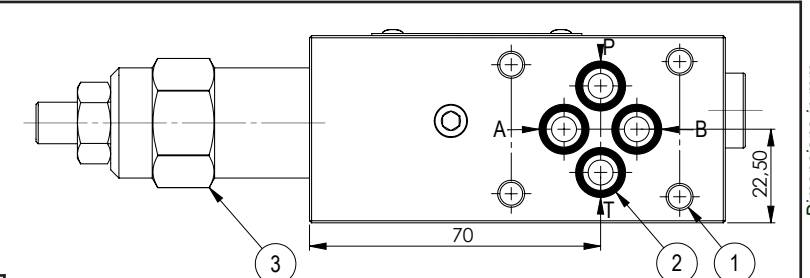
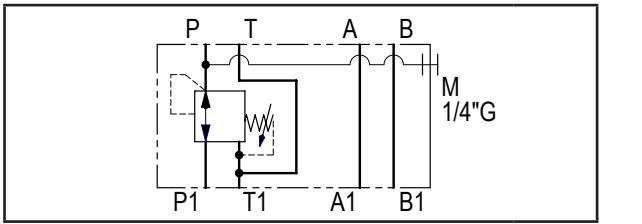
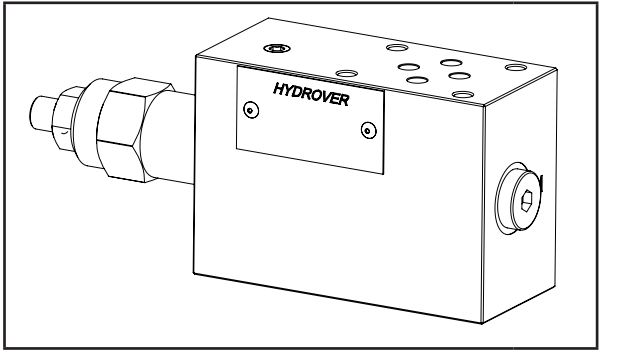
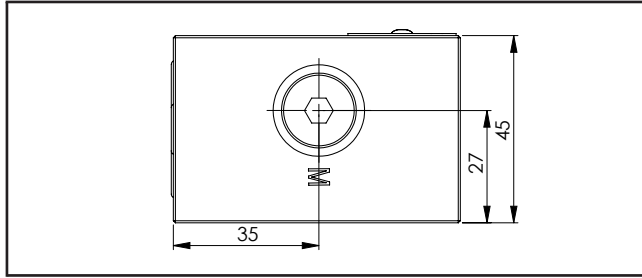
Relief valve adjustment type *

- S = Screw
- K = Knob

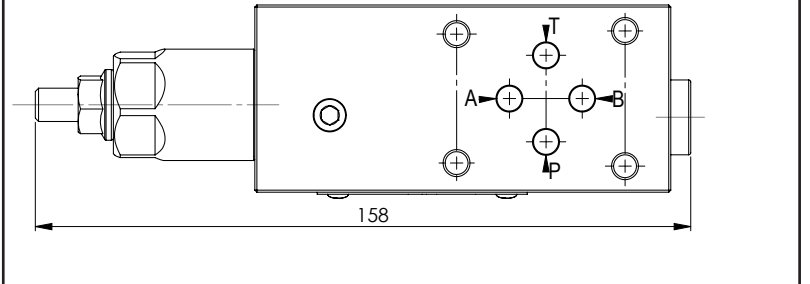
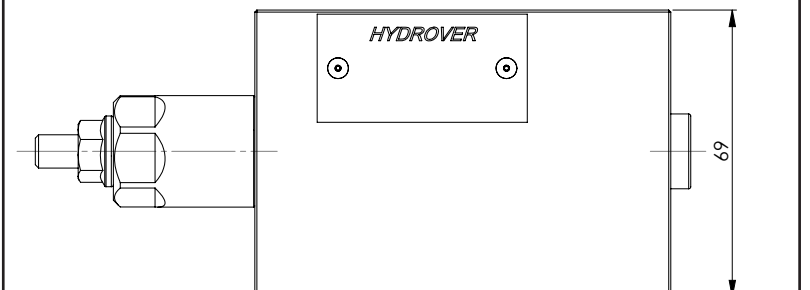
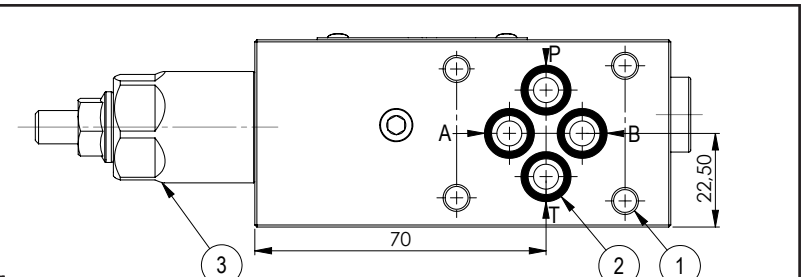
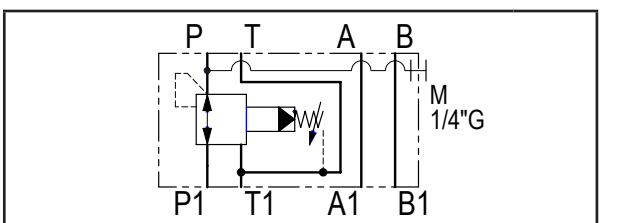
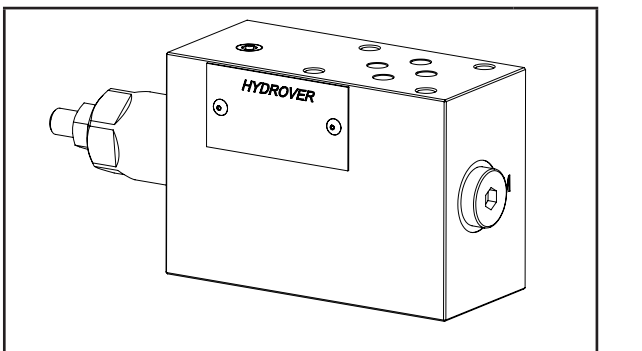
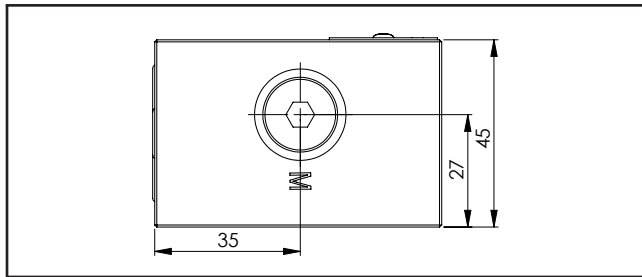
Manifold material
Aluminium

* Omit if not required. To order the product without the relief cartridge valve, omit the adjustment type and pressure range options: H3909A.
The manifold will still be provided with the corresponding cavity.

Cetop 3 modular pressure reducing valve on P H3939



Dimensions in mm



Ordering code

H 3 9 3 9 A - - -

Hydrover product

Product series

39 series - Cetop 3 modular valves

Product ID

Manifold material

Aluminium

Pressure reducing valve type *

R = VRPR-10A (direct)
X = VRPX-10A (pilot)

VRPR-10A reducing valve pressure range (static) *

0 = 2-14 bar
1 = 2-25 bar
2 = 10-50 bar
3 = 28-80 bar

VRPX-10A reducing valve pressure range (static) *

0 = 25-100 bar
1 = 35-140 bar
2 = 70-280 bar
3 = 35-350 bar (adj. knob)

Reducing valve adjustment type *

S = Screw
K = Knob

* Omit if not required. To order the product without the pressure reducing cartridge valve, omit the valve adjustment type, valve pressure range and valve type options: H3939A.
The manifold will still be provided with the corresponding cavity.

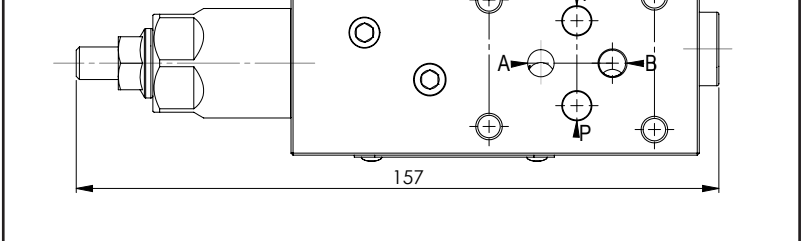
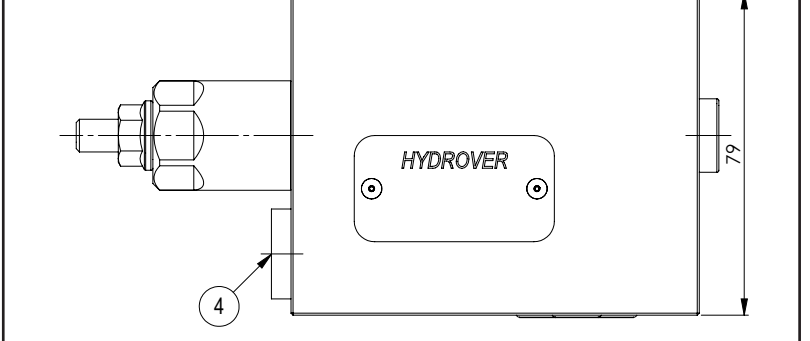
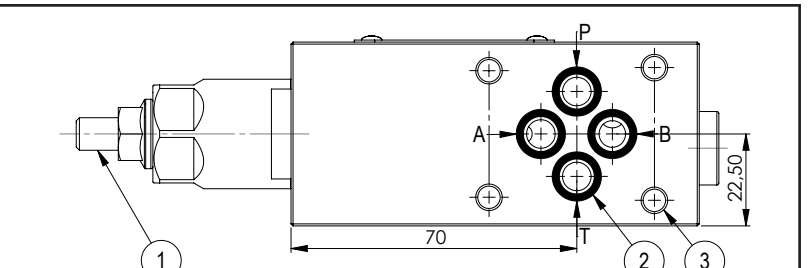
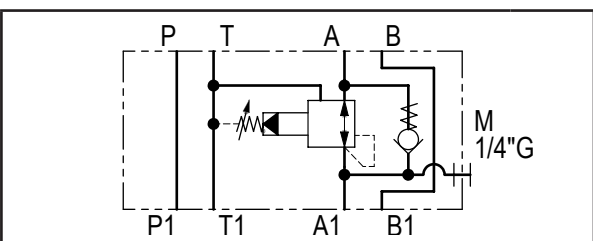
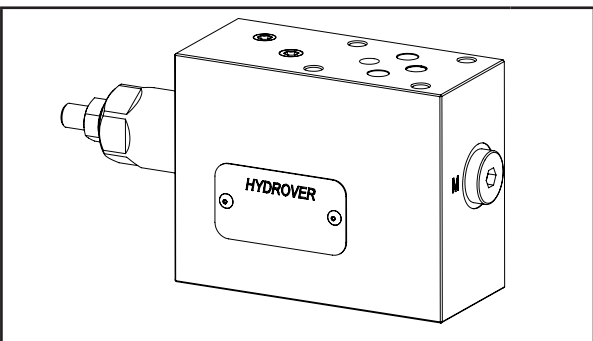
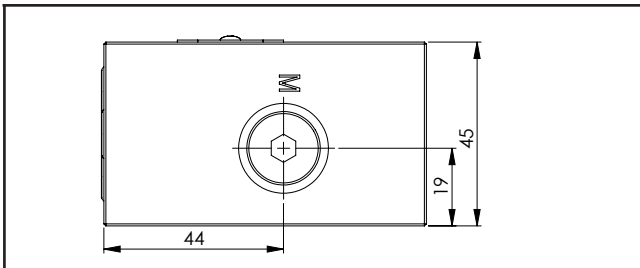
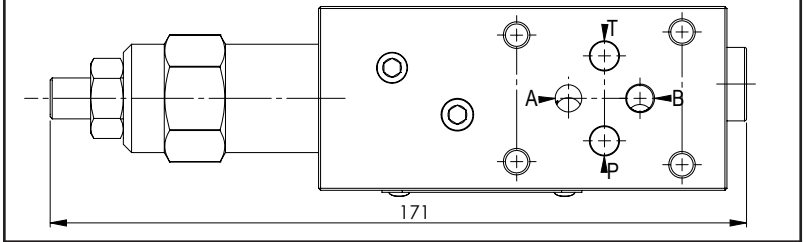
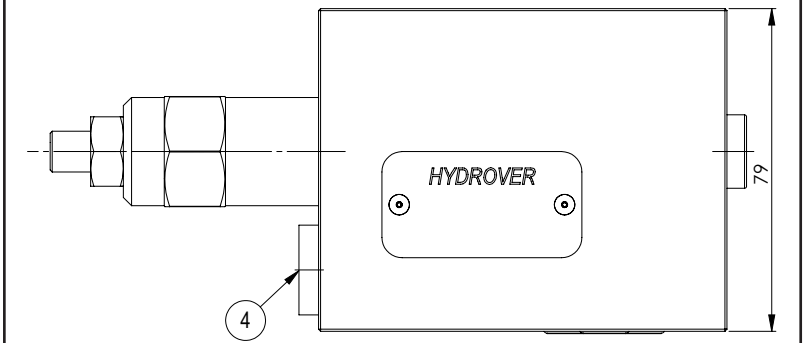
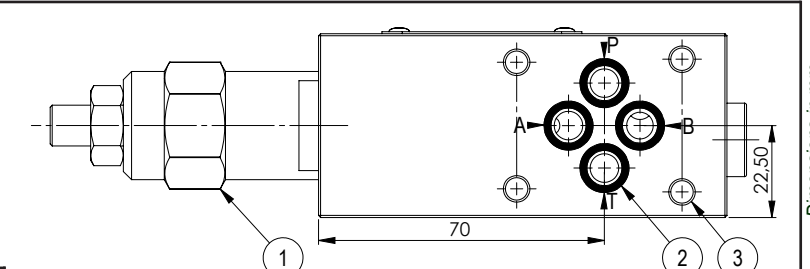
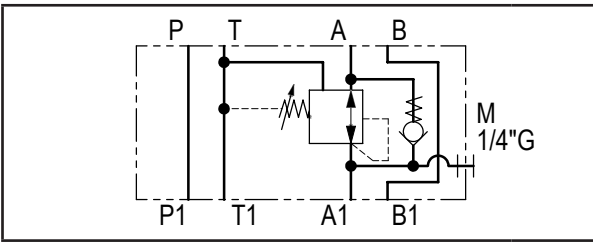
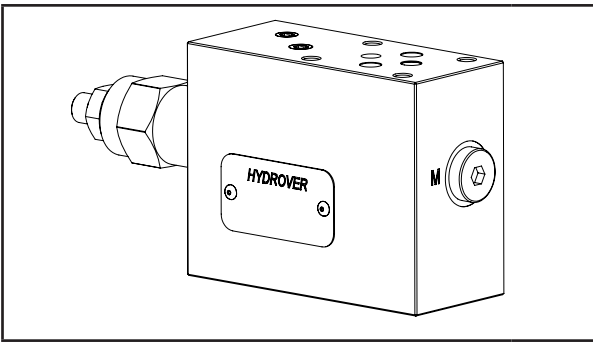
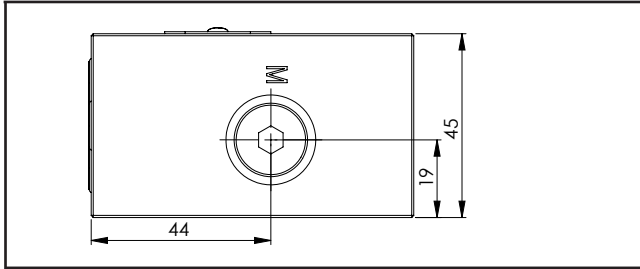
N°	Description	Q.ty
1	Ø 5,5 through hole for mounting	4
2	OR 108 i. Ø 8,73 cross section 1,78	4
3	Bosch Rexroth reducing valve VRPR-10A o VRPX-10A * depicted with screw adjustment	1

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue

Technical data	
Max. pressure	250 bar
Max. flow with VRPR-10A	25 lpm *
Max. flow with VRPX-10A	55 lpm *
Weight	1,1 Kg
Manifold material	Aluminium

Cetop 3 modular pressure reducing valve on A **H3962**

Dimensions in mm



Ordering code

H 3 9 6 2 A - - -

Hydrover product

Product series

39 series - Cetop 3 modular valves

Product ID

Manifold material

Aluminium

Pressure reducing valve type *

R = VRPR-10A (direct)
X = VRPX-10A (pilot)

VRPR-10A reducing valve pressure range (static) *

0 = 2-14 bar
1 = 2-25 bar
2 = 10-50 bar
3 = 28-80 bar

VRPX-10A reducing valve pressure range (static) *

0 = 25-100 bar
1 = 35-140 bar
2 = 70-280 bar
3 = 35-350 bar (adj. knob)

Reducing valve adjustment type *

S = Screw
K = Knob

* Omit if not required. To order the product without the pressure reducing cartridge valve, omit the valve adjustment type, valve pressure range and valve type options: H3962A.
The manifold will still be provided with the corresponding cavity.

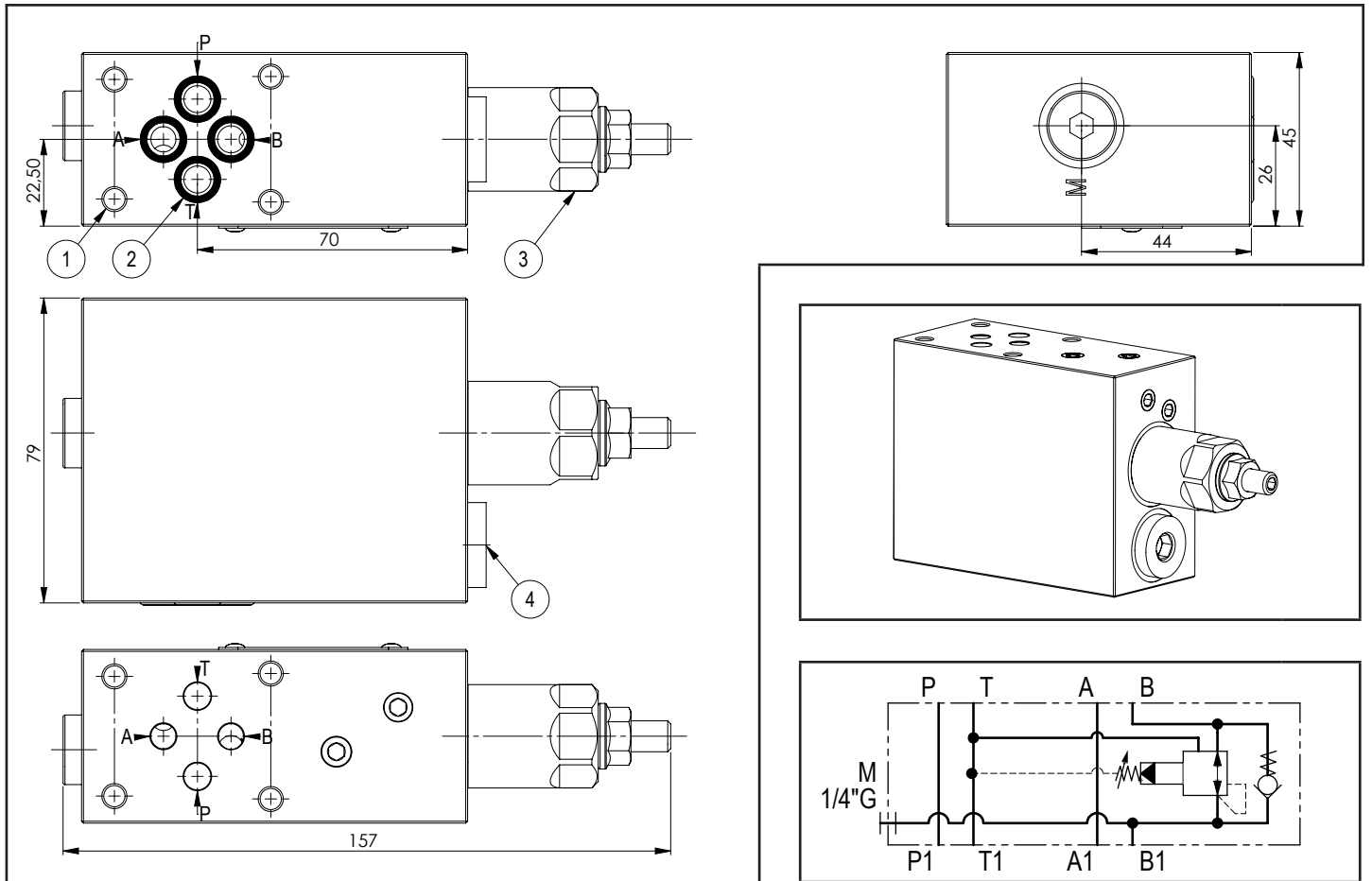
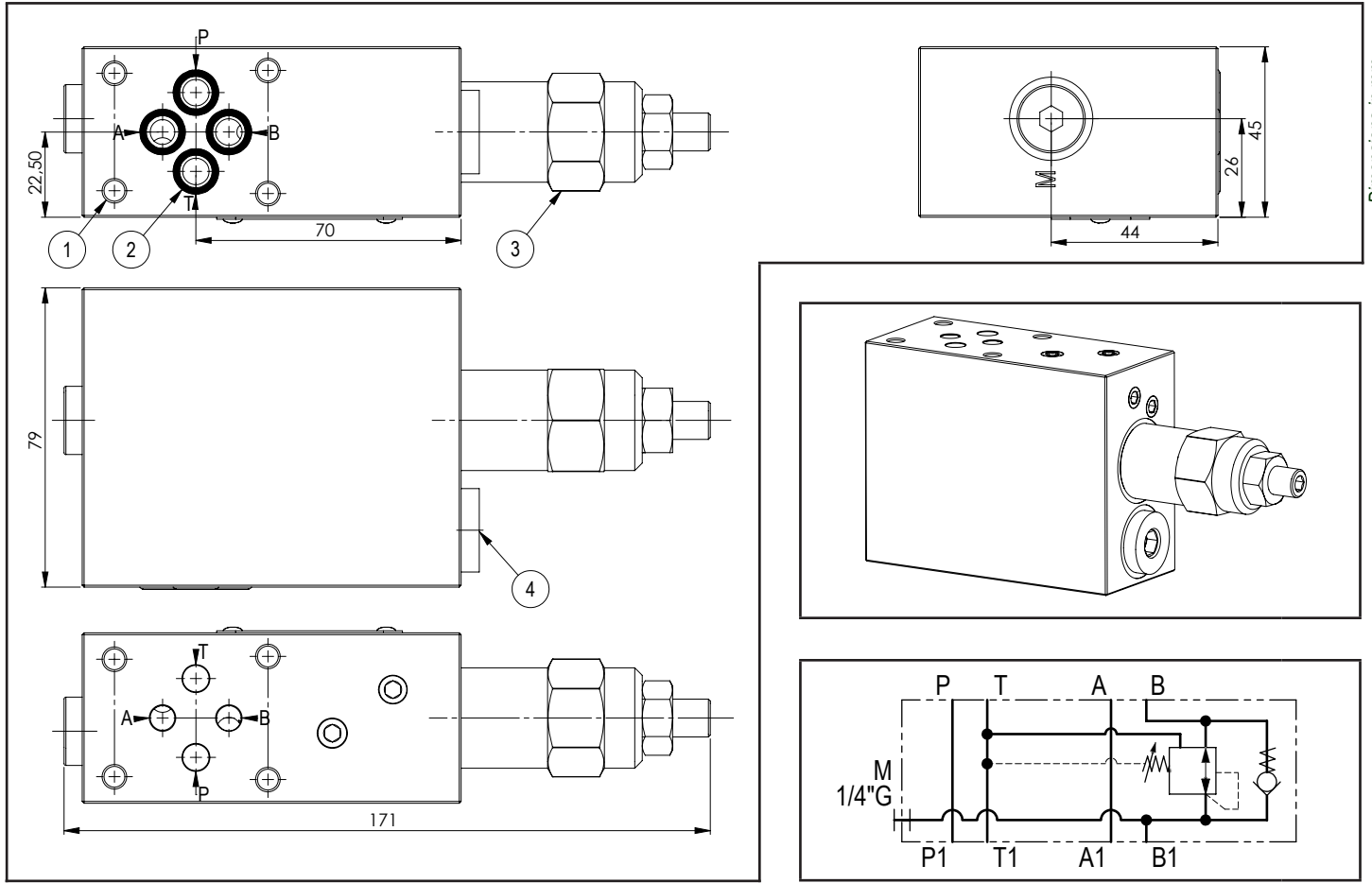
N°	Description	Q.ty
1	Bosch Rexroth reducing valve VRPR-10A o VRPX-10A * depicted with screw adjustment	1
2	OR 108 i. Ø 8,73 cross section 1,78	4
3	Ø 5,5 through hole for mounting	4
4	Check valve VUH1 3/8" G under 3/8" G plug	1

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue

Technical data	
Max. pressure	250 bar
Max. flow with VRPR-10A	25 lpm *
Max. flow with VRPX-10A	55 lpm *
Weight	1,1 Kg
Manifold material	Aluminium

Cetop 3 modular pressure reducing valve on B **H3963**

Dimensions in mm



Ordering code

H 3 9 6 3 A - - -

Hydrover product

Product series

39 series - Cetop 3 modular valves

Product ID

Manifold material

Aluminium

Pressure reducing valve type *

R = VRPR-10A (direct)
X = VRPX-10A (pilot)

VRPR-10A reducing valve pressure range (static) *

0 = 2-14 bar
1 = 2-25 bar
2 = 10-50 bar
3 = 28-80 bar

VRPX-10A reducing valve pressure range (static) *

0 = 25-100 bar
1 = 35-140 bar
2 = 70-280 bar
3 = 35-350 bar (adj. knob)

Reducing valve adjustment type *

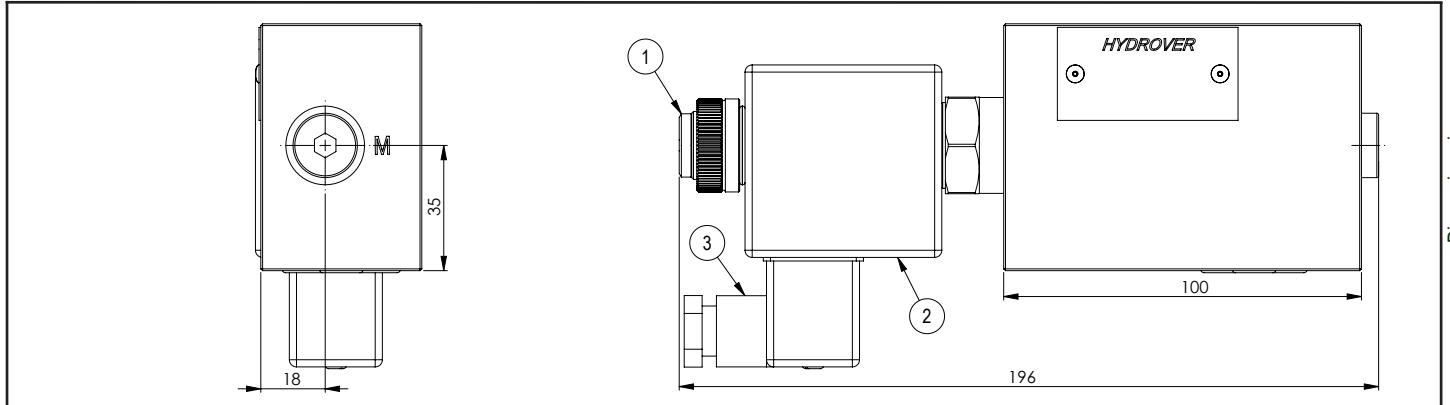
S = Screw
K = Knob

* Omit if not required. To order the product without the pressure reducing cartridge valve, the valve adjustment type, valve pressure range and valve type options: H3963A.
The manifold will still be provided with the corresponding cavity.

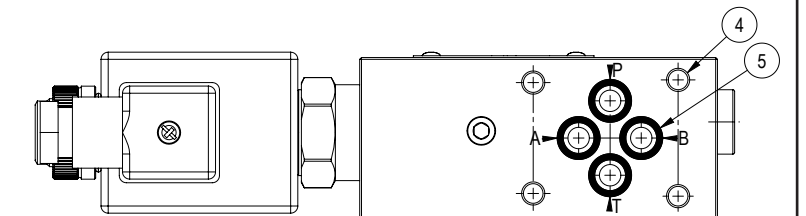
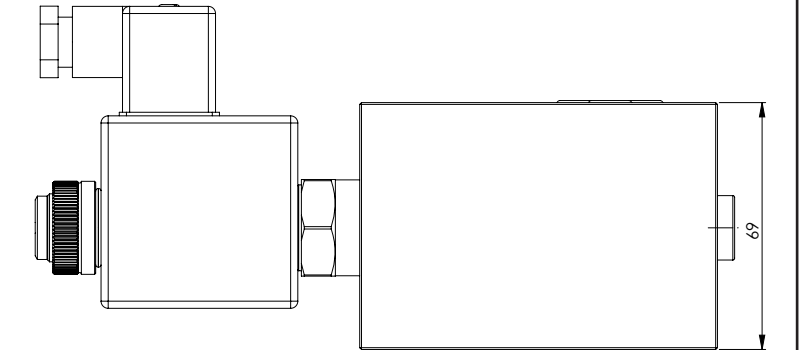
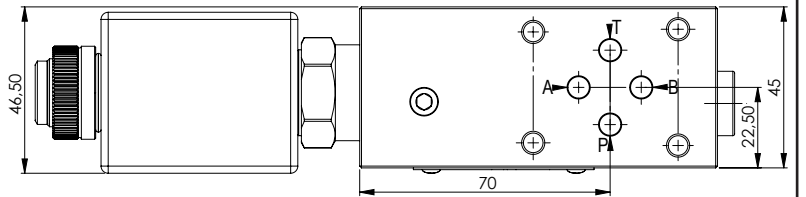
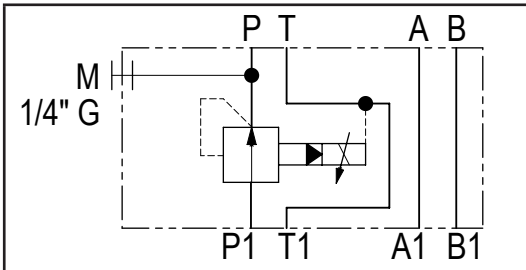
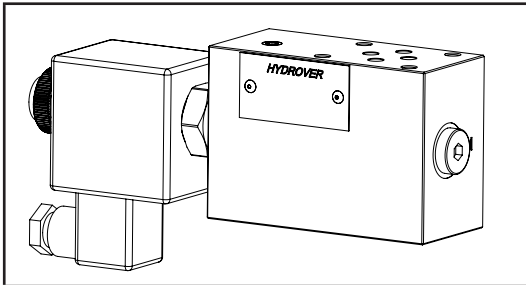
N°	Description	Q.ty
1	Bosch Rexroth reducing valve VRPR-10A o VRPX-10A * depicted with screw adjustment	1
2	OR 108 i. Ø 8,73 cross section 1,78	4
3	Ø 5,5 through hole for mounting	4
4	Check valve VUH1 3/8" G under 3/8" G plug	1

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue

Technical data	
Max. pressure	250 bar
Max. flow with VRPR-10A	25 lpm *
Max. flow with VRPX-10A	55 lpm *
Weight	1,1 Kg
Manifold material	Aluminium

Cetop 3 modular proportional pressure reducing valve on P **H3942**

Technical data	
Max. pressure	250 bar
Max. flow	45 lpm *
Weight	1,2 Kg
Manifold material	Aluminium



Dimensions in mm

N°	Description	Q.ty
1	Bosch Rexroth proportional solenoid valve VEP-5A-2R-06-P / OD.91.06.77-Y-00 *	1
2	Bosch Rexroth coil S5-356 - CLASS H DIN 43650 ISO 4400 *	1
3	Connector DIN 43650 ISO 4400	1
4	Ø 5,5 through hole for mounting	4
5	OR 108 i. Ø 8,73 cross section 1,78	4

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue



Ordering code

H	3	9	4	2	A	-	_	_	-	_	_	_
---	---	---	---	---	---	---	---	---	---	---	---	---

Hydrover product

Product series

39 series - Cetop 3 modular valves

Product ID

Manifold material

Aluminium

Proportional solenoid valve coil connection *

1 = DIN 43650 ISO 4400

Proportional solenoid valve coil voltage *

OB = 12V DC

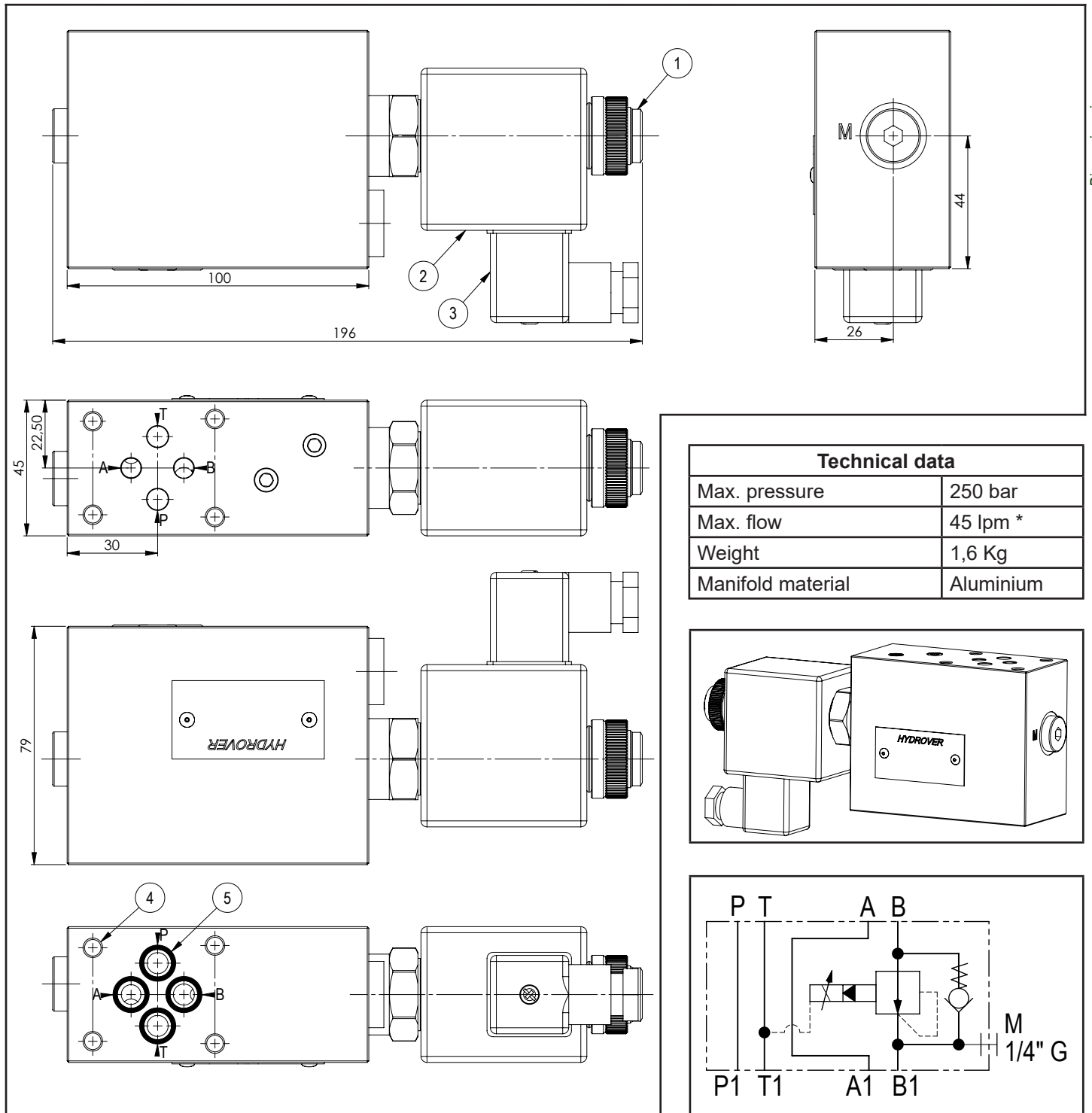
OC = 24V DC

Proportional solenoid valve manual override *

E0 = Without

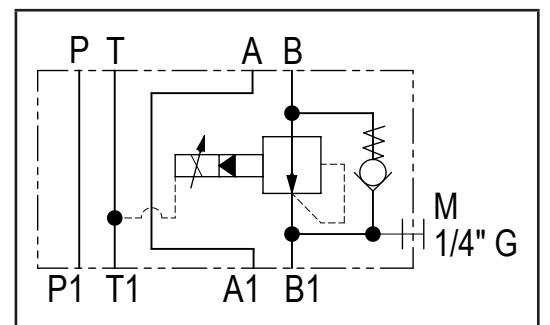
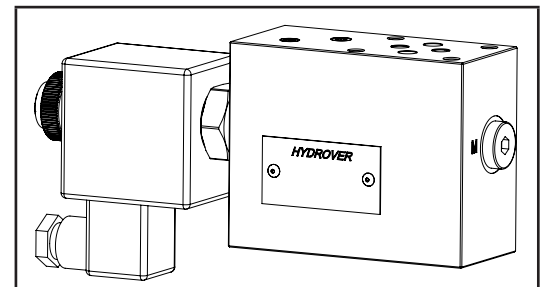
EV = Screw

* Omit if not required. To order the product without the proportional solenoid cartridge valve, omit the manual override, coil voltage and coil connection options: H3942A.
The manifold will still be provided with the corresponding cavity.

Cetop 3 modular proportional pressure reducing valve on B **H3943**

Dimensions in mm

Technical data	
Max. pressure	250 bar
Max. flow	45 lpm *
Weight	1,6 Kg
Manifold material	Aluminium



N°	Description	Q.ty
1	Bosch Rexroth proportional solenoid valve VEP-5A-2R-06-P / OD.91.06.77-Y-00 *	1
2	Bosch Rexroth coil S5-356 - CLASS H DIN 43650 ISO 4400 *	1
3	Connector DIN 43650 ISO 4400	1
4	Ø 5,5 through hole for mounting	4
5	OR 108 i. Ø 8,73 cross section 1,78	4

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue



Ordering code

H	3	9	4	3	A	-	_	_	-	_	_	_
---	---	---	---	---	---	---	---	---	---	---	---	---

Hydrover product

Product series

39 series - Cetop 3 modular valves

Product ID

Manifold material

Aluminium

**Proportional solenoid valve
coil connection ***

1 = DIN 43650 ISO 4400

**Proportional solenoid valve
coil voltage ***

OB = 12V DC

OC = 24V DC

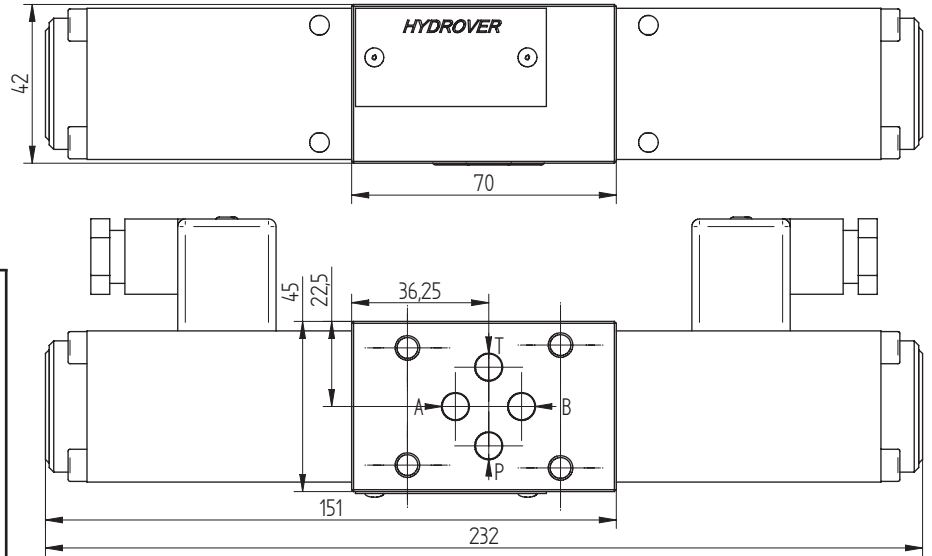
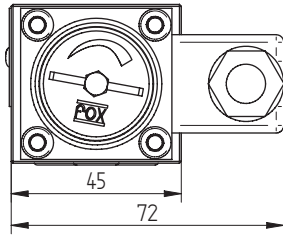
**Proportional solenoid valve
manual override ***

E0 = Without

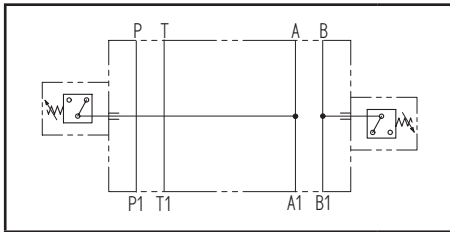
EV = Screw

* Omit if not required. To order the product without the proportional solenoid cartridge valve, omit the manual override, coil voltage and coil connection options: H3943A.
The manifold will still be provided with the corresponding cavity.

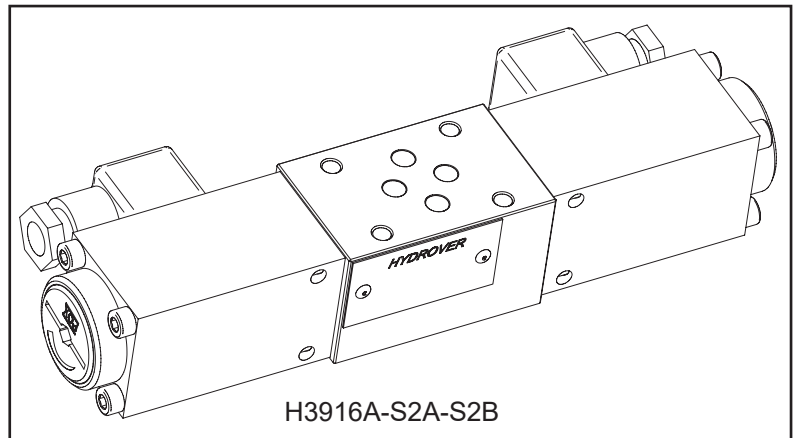
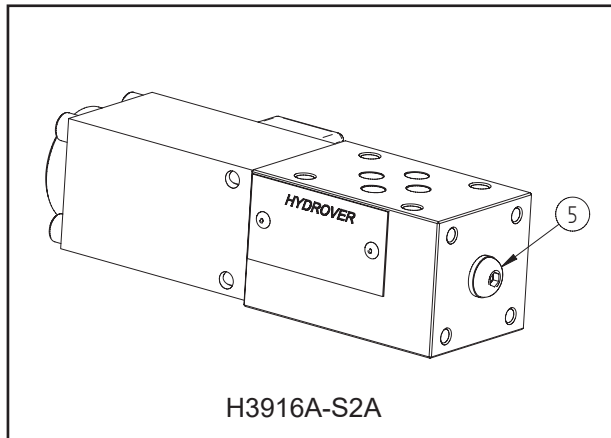
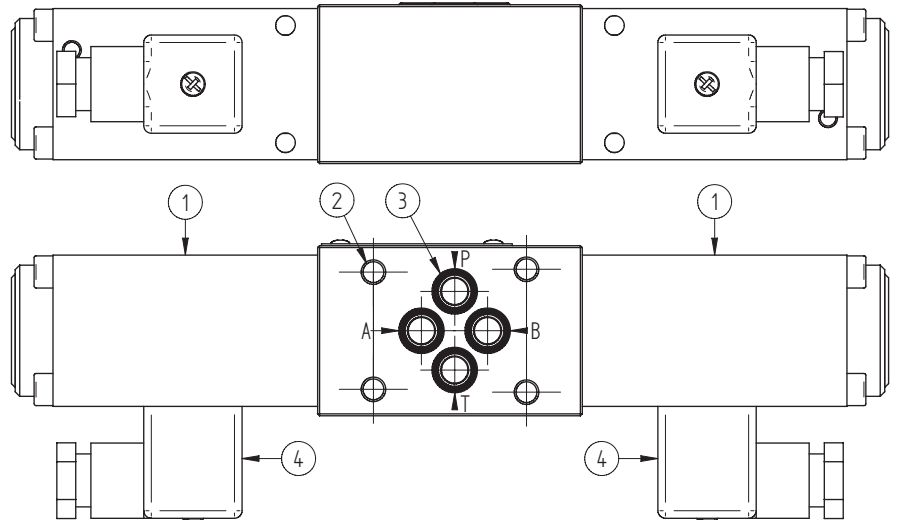
Dimensions in mm



Technical data	
Max. pressure	250 bar
Manifold material	Aluminium
Weight 1 pressure switch	0,7 Kg
Weight 2 pressure switch	1,05 Kg



N°	Description	Q.ty
1	Pressure switch FOX K5	1/2
2	Ø 5,5 through hole for mounting	4
3	OR 108 i. Ø 8,73 cross section 1,78	4
4	Connector DIN 43650 ISO 4400	1/2
5	M6 plug with bonded washer for configurations with 1 pressure switch.	1



Ordering code

--

H 3 9 1 6 A - - - A - - - B

Hydrover product

Product series

39 series - Cetop 3 modular valves

Product ID

Manifold material

Aluminium

Pressure switch side*
On B

B side pressure range *

- 1 = 5-100 bar
- 2 = 20-200 bar
- 3 = 30-300 bar

B side adjustment type *

- S = Screw
- K = Knob

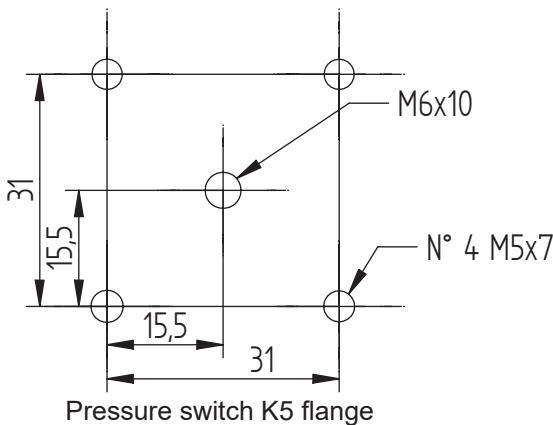
Pressure switch side *
On A

A side pressure range *

- 1 = 5-100 bar
- 2 = 20-200 bar
- 3 = 30-300 bar

A side adjustment type *

- S = Screw
- K = Knob



* Omit if not required. For example to order the product with the pressure switch only on A, omit the adjustment type, pressure range and pressure switch B side options: H3916A-K2A.

“K5” adjustable pressure switches activate a microswitch once preset value is reached. The pressure is set by rotating a graduated knob or, for the economical version, by a setscrew located on top of the unit. Both systems are supplied with a device permits locking the desired set pressure. Mechanical stops protect both the spring and the microswitch from over pressurization.

Technical Features:

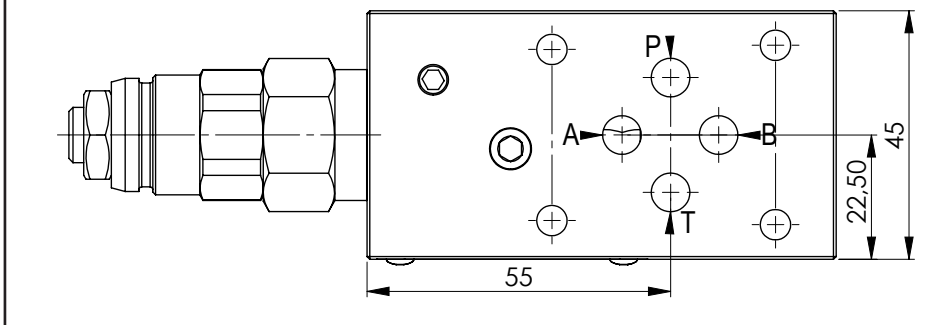
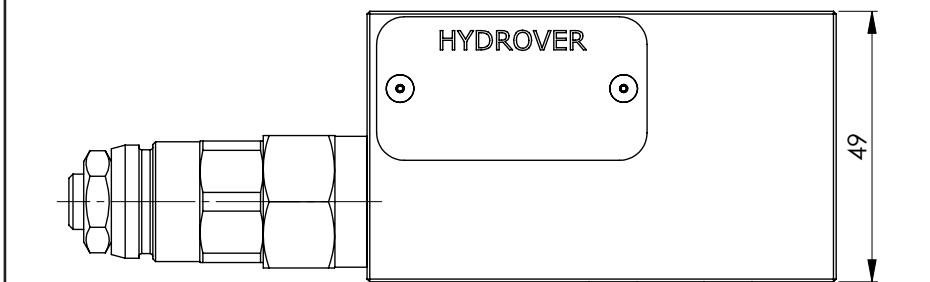
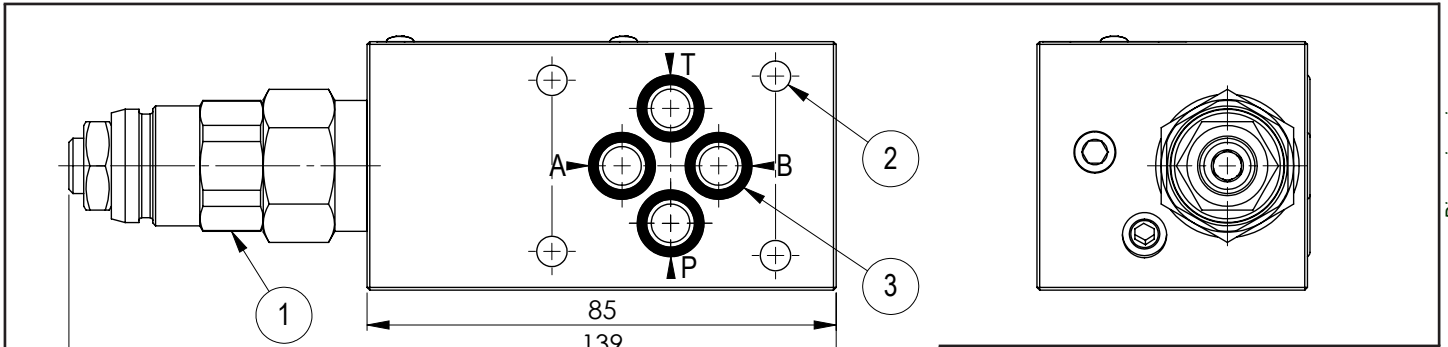
- Body : square 40x40mm in anodized aluminium
- Assembly: in every position with 1/4”BSPF threaded port or Cetop flanged without needs adaptors
- Working temperature: from - 20°C to + 80°C
- Switching frequency: 120 cycles/min
- Switching accuracy: ±2% of the end of scale to 20°C
- Fixed hysteresis value: ~ 15% of the end of scale at 20°C
- Mechanical life: 106 cycles at 70 bar at 20°C
- Maximum load: 5 Ampère at 250 Volt AC 0.25 Ampère at 250 Volt DC
- Exchange contact NO and NC
- Electric connection according to DIN 43650

For more informations www.fox.it

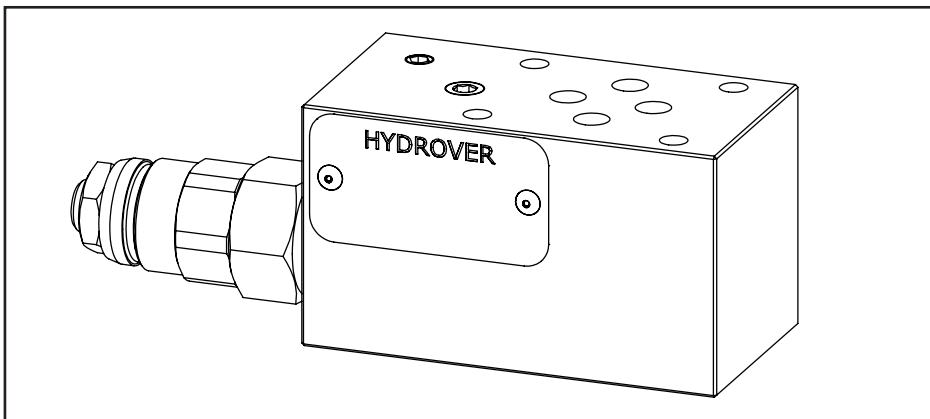
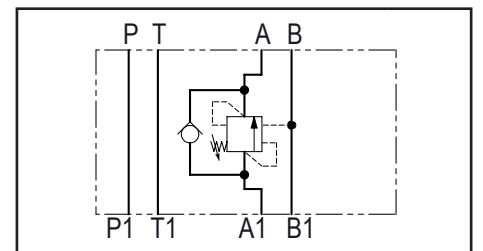
Cetop 3 modular counterbalance valve on A / 25 lpm

H3921

Dimensions in mm



Technical data	
Max. pressure	Aluminium 250 bar Steel 350 bar
Max. flow	25 lpm *
Pilot ratio	4:1
Weight	Aluminium: 0,7 Kg Steel: 1,5 Kg
Manifold material	Steel o Aluminium



N°	Description	Q.ty
1	Bosch Rexroth counterbalance valve VBSN-08AA *	1
2	Ø 5,5 through hole for mounting	4
3	OR 108 i. Ø 8,73 cross section 1,78	4

** for complete technical information, click on the blue link or go to the components section at the end of the catalogue*



Ordering code

H	3	9	2	1	-	-	-
---	---	---	---	---	---	---	---

Hydrover product

Product series

39 series - Cetop 3 modular valves

Product ID

Manifold material

Aluminium

Steel

= A

= S

**Counterbalance valve
adjustment pressure range ***

2 = 100-210 bar

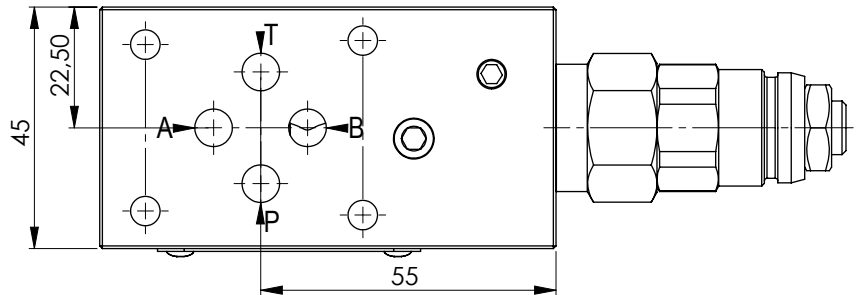
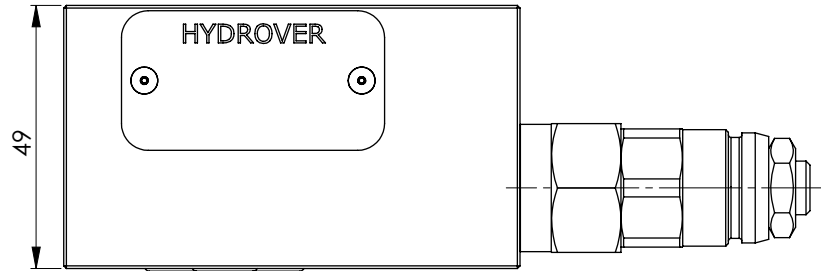
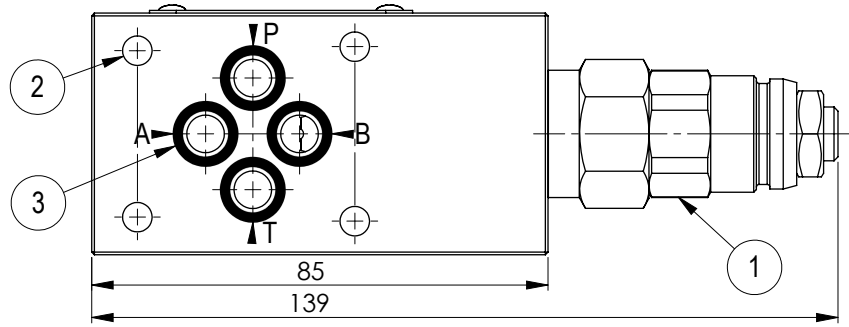
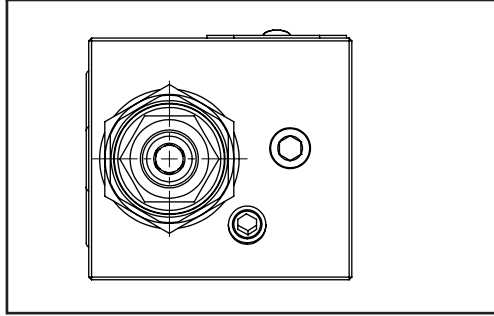
3 = 200-350 bar

**Counterbalance valve
adjustment type ***

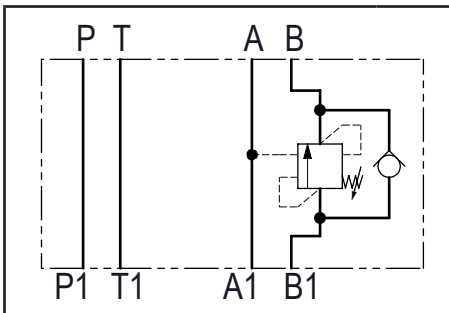
S = Screw

* Omit if not required. To order the product without the counterbalance cartridge valve, omit the adjustment type and pressure range options: H3921A.
The manifold will still be provided with the corresponding cavity.

Dimensions in mm

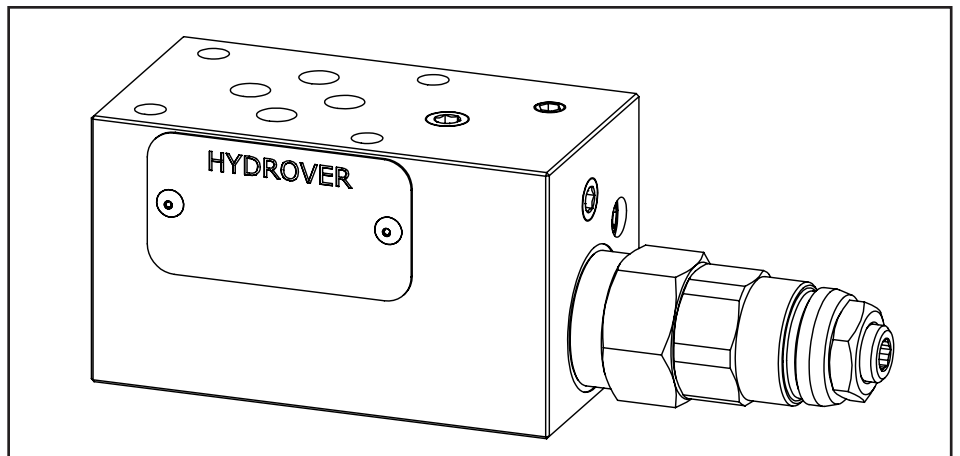


Technical data	
Max. pressure	Aluminium 250 bar Steel 350 bar
Max. flow	25 lpm *
Pilot ratio	4:1
Weight	Aluminium: 0,7 Kg Steel: 1,5 Kg
Manifold material	Steel o Aluminium



N°	Description	Q.ty
1	Bosch Rexroth counterbalance valve VBSN-08AA *	1
2	Ø 5,5 through hole for mounting	4
3	OR 108 i. Ø 8,73 cross section 1,78	4

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue





Ordering code

H	3	9	6	9	_	-	_	_
---	---	---	---	---	---	---	---	---

Hydrover product

Product series

39 series - Cetop 3 modular valves

Product ID

Manifold material

Aluminium

= A

Steel

= S

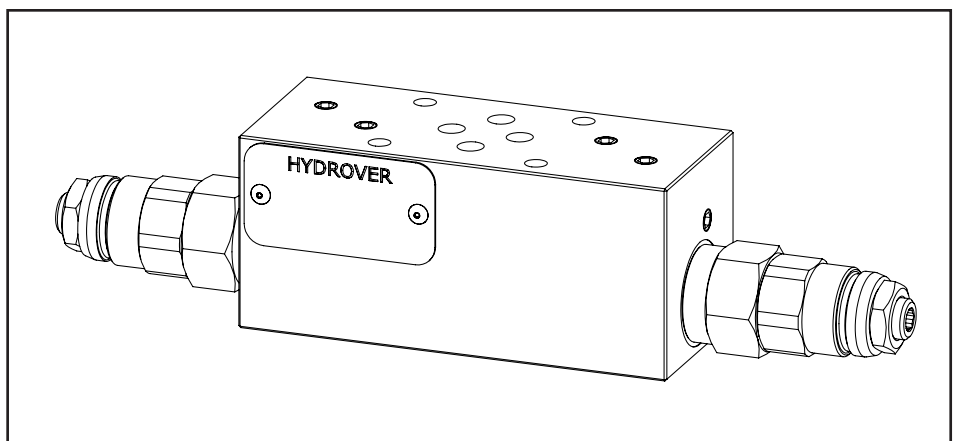
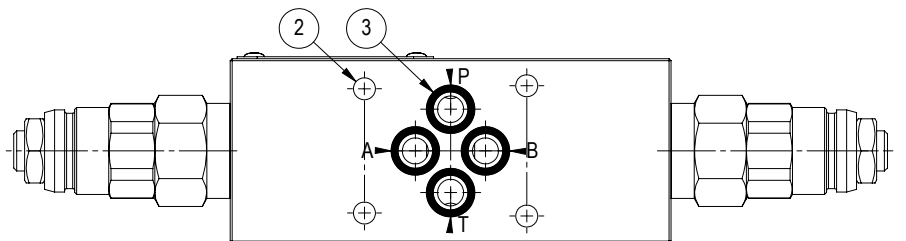
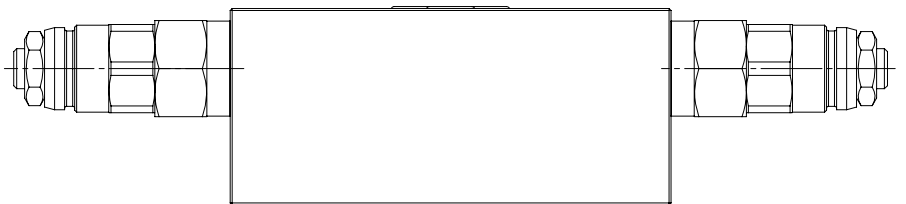
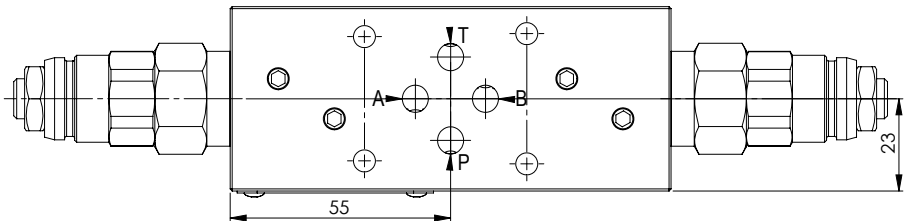
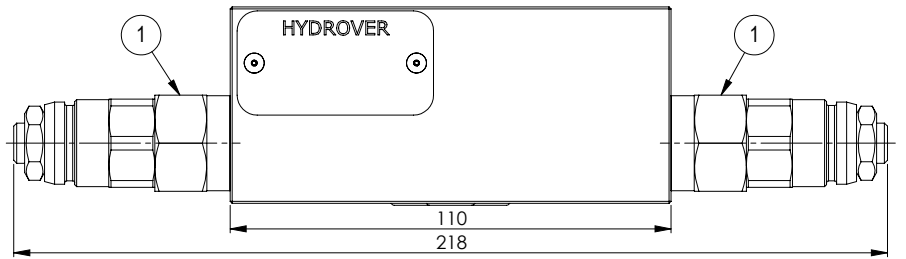
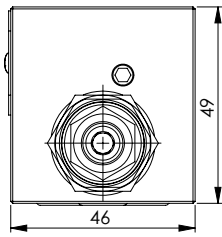
**Counterbalance valve
adjustment pressure range ***

2 =	100-210 bar
3 =	200-350 bar

**Counterbalance valve
adjustment type ***

S = Screw

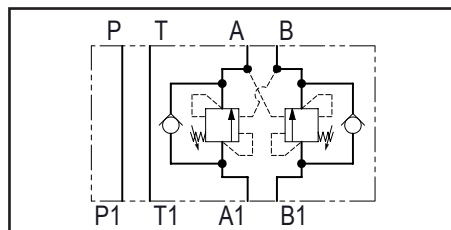
* Omit if not required. To order the product without the counterbalance cartridge valve, omit the adjustment type and pressure range options: H3969A.
The manifold will still be provided with the corresponding cavity.



Dimensions in mm

Technical data

Max. pressure	Aluminium 250 bar Steel 350 bar
Max. flow	25 lpm *
Pilot ratio	4:1
Weight	Aluminium: 1 Kg Steel: 2,1 Kg
Manifold material	Steel o Aluminium



N°	Description	Q.ty
1	Bosch Rexroth counterbalance valve VBSN-08AA *	2
2	Ø 5,5 through hole for mounting	4
3	OR 108 i. Ø 8,73 cross section 1,78	4

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue

Ordering code

H	3	9	2	9	-	-	-	-	-	-
---	---	---	---	---	---	---	---	---	---	---

Hydrover product

Product series

39 series - Cetop 3 modular valves

Product ID

Manifold material

Aluminium
Steel

= A
= S

**Counterbalance valve
adjustment pressure range on B ***

2 = 100-210 bar
3 = 200-350 bar

**Counterbalance valve
adjustment type on B ***

S = Screw

**Counterbalance valve
adjustment pressure range on A ***

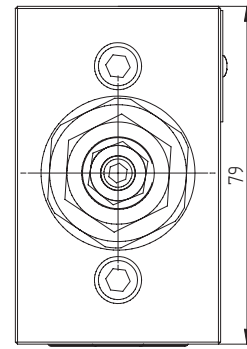
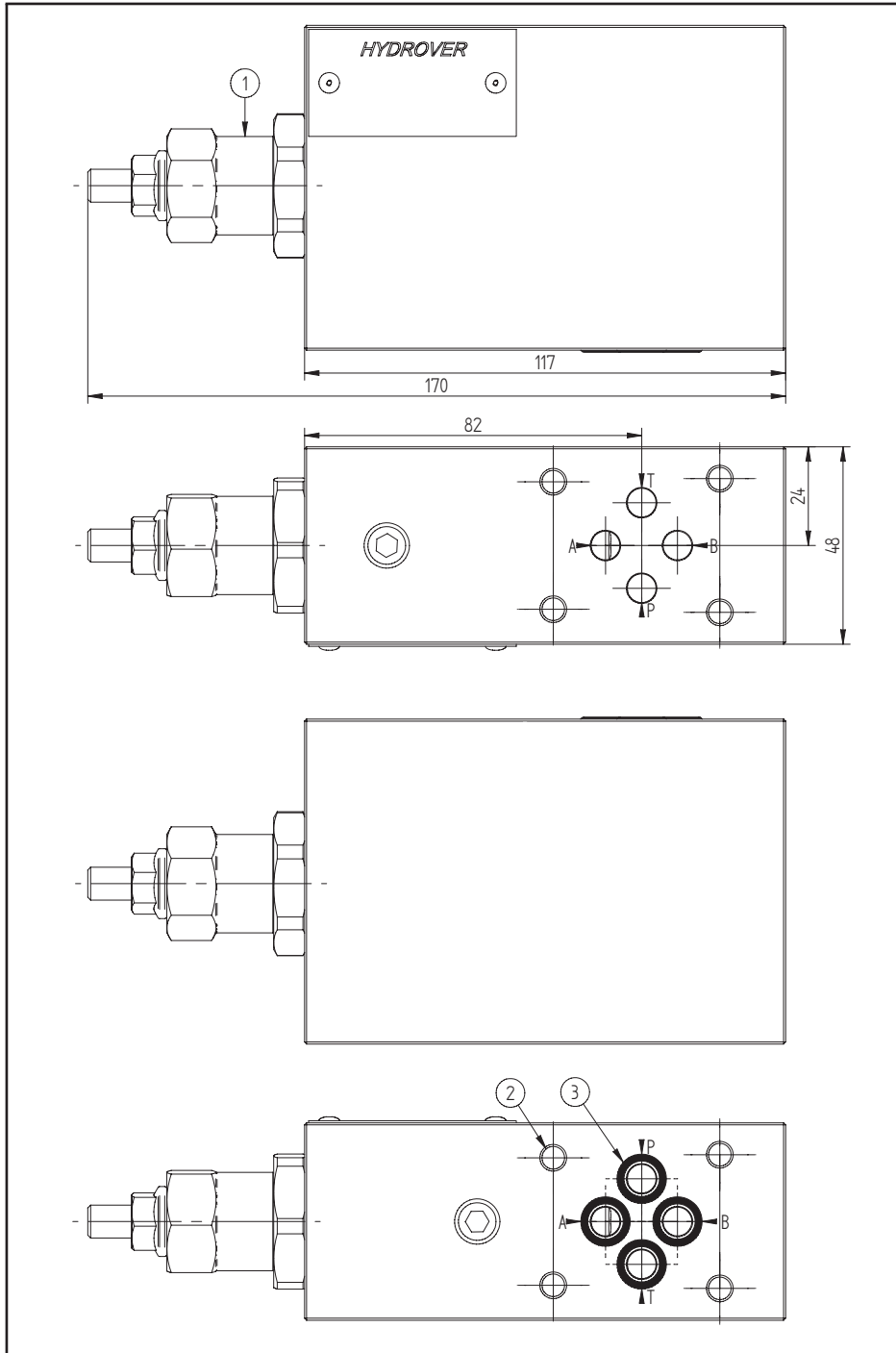
2 = 100-210 bar
3 = 200-350 bar

**Counterbalance valve
adjustment type on A**

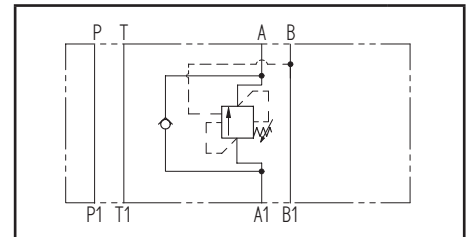
S = Screw

* Omit if not required. To order the product without the counterbalance cartridge valves, omit the adjustment type and pressure range options on A e B: H3929A.
The manifold will still be provided with the corresponding cavities.

Dimensions in mm

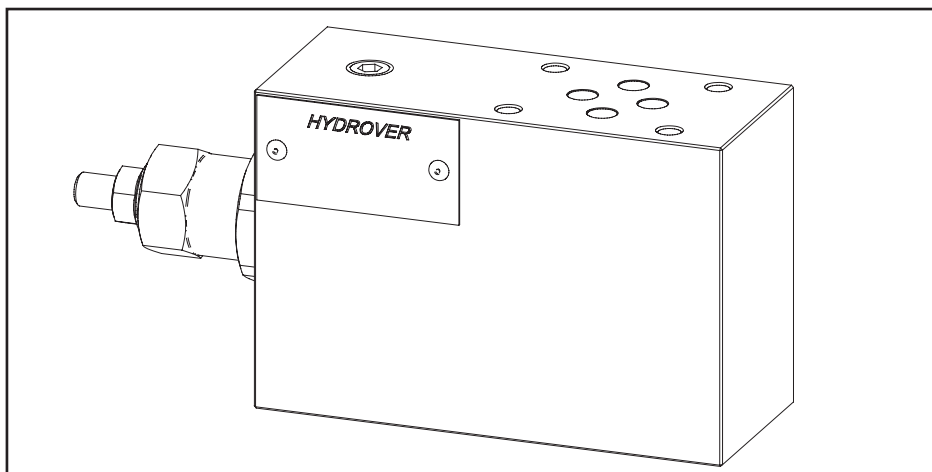


Technical data	
Max. pressure	250 bar
Max. flow	45 lpm *
Pilot ratio	4.2:1
Weight	1,5 Kg
Manifold material	Aluminium



N°	Description	Q.ty
1	Bosch Rexroth counterbalance valve VBSO-SEC-30 *	1
2	Ø 5,5 through hole for mounting	4
3	OR 108 i. Ø 8,73 cross section 1,78	4

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue



Ordering code

H	3	9	2	5	A	-	-	-
---	---	---	---	---	---	---	---	---

Hydrover product

Product series

39 series - Cetop 3 modular valves

Product ID

Manifold material

Aluminium

**Counterbalance valve
adjustment pressure range ***

2 =

60-210 bar

3 =

100-350 bar

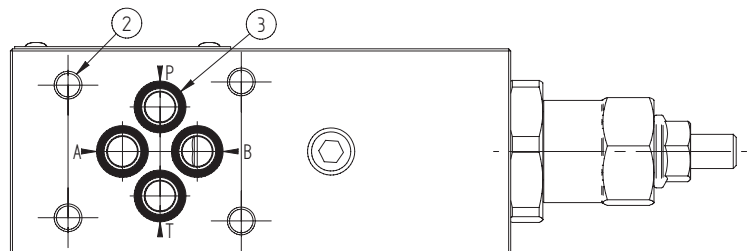
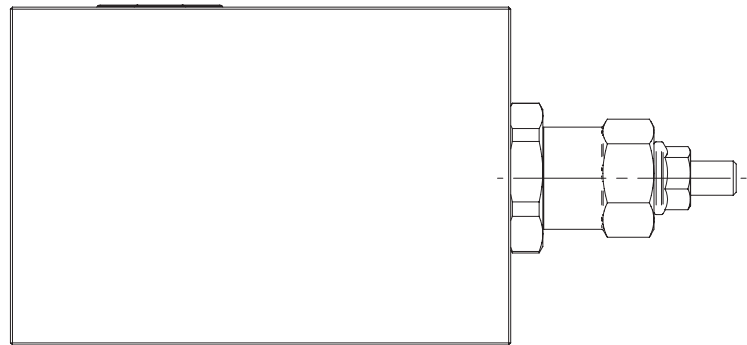
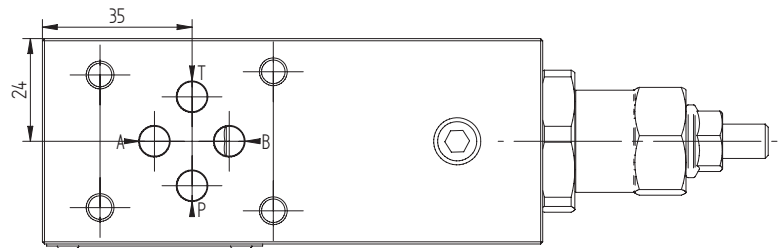
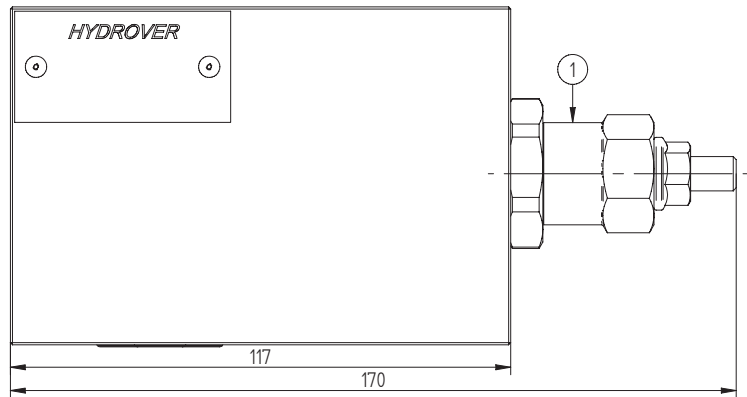
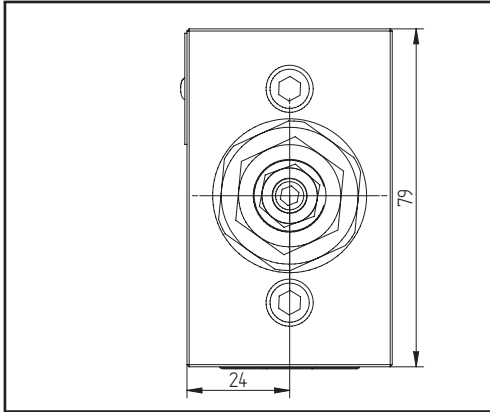
**Counterbalance valve
adjustment type ***

S =

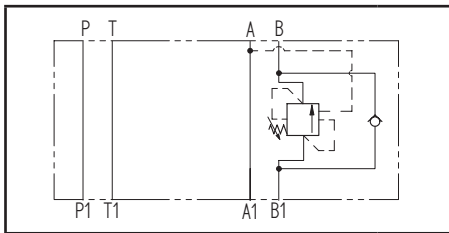
Screw

* Omit if not required. To order the product without the counterbalance cartridge valve, omit the adjustment type and pressure range options: H3925A.
The manifold will still be provided with the corresponding cavity.

Dimensions in mm

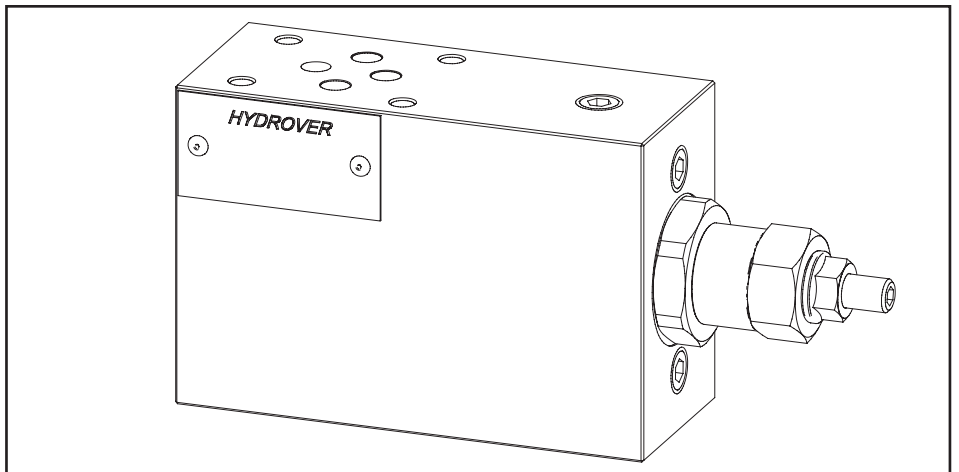


Technical data	
Max. pressure	250 bar
Max. flow	45 lpm *
Pilot ratio	4.2:1
Weight	1,5 Kg
Manifold material	Aluminium



N°	Description	Q.ty
1	Bosch Rexroth counterbalance valve VBSO-SEC-30 *	1
2	Ø 5,5 through hole for mounting	4
3	OR 108 i. Ø 8,73 cross section 1,78	4

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue





Ordering code

H	3	9	2	6	A	-	-	-
---	---	---	---	---	---	---	---	---

Hydrover product

Product series

39 series - Cetop 3 modular valves

Product ID

Manifold material

Aluminium

**Counterbalance valve
adjustment pressure range ***

2 =

60-210 bar

3 =

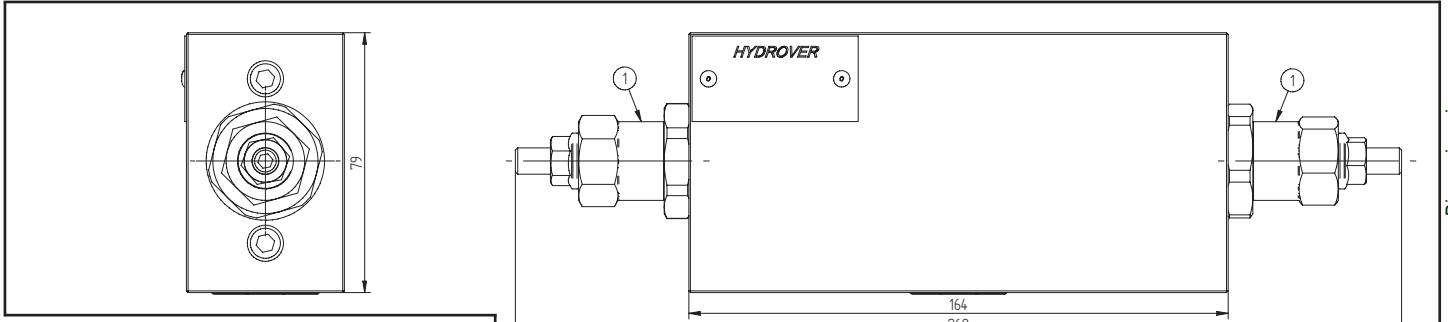
100-350 bar

**Counterbalance valve
adjustment type ***

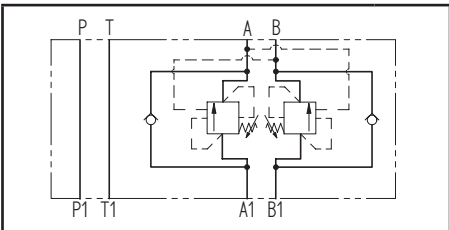
S =

Screw

* Omit if not required. To order the product without the counterbalance cartridge valve, omit the adjustment type and pressure range options: H3926A.
The manifold will still be provided with the corresponding cavity.

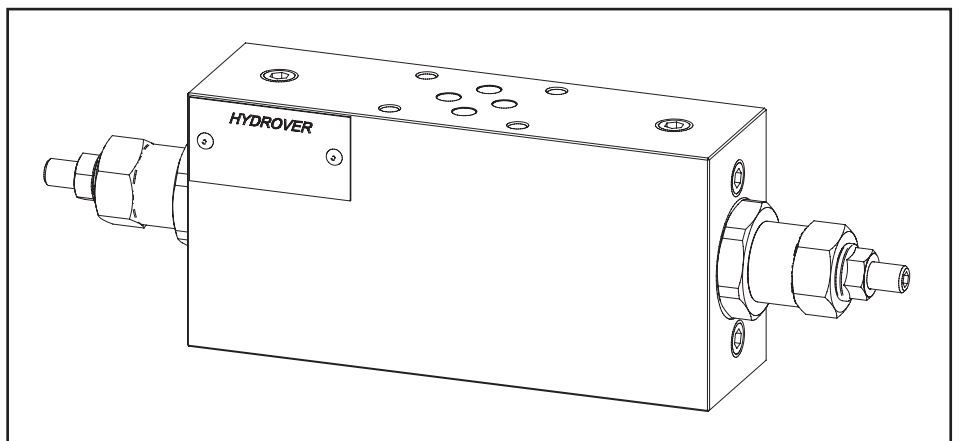
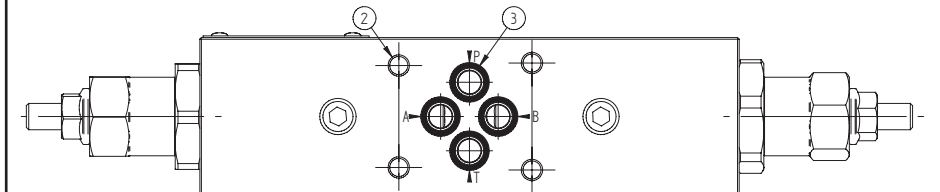
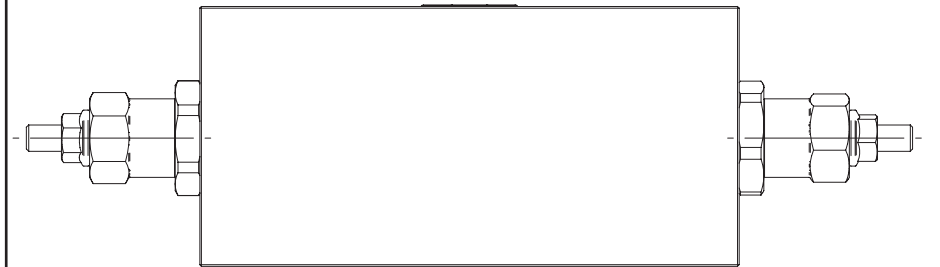
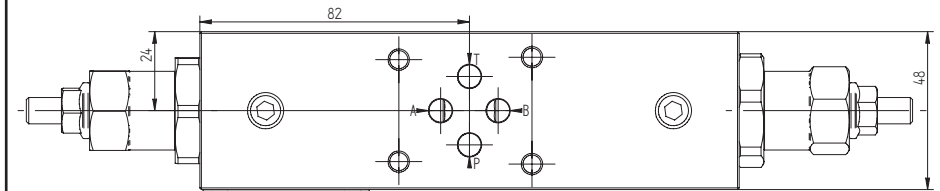
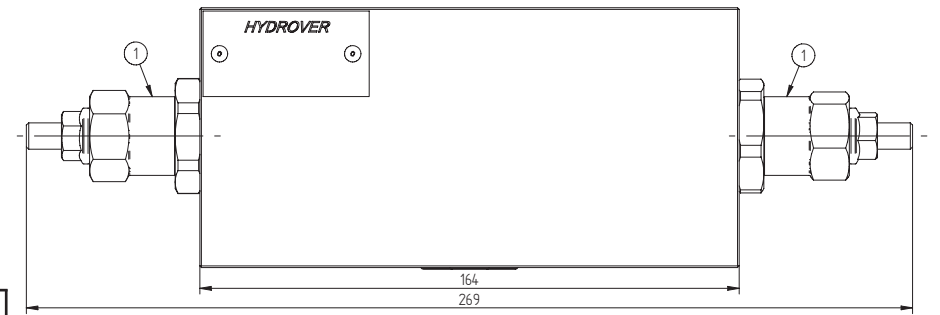


Technical data	
Max. pressure	250 bar
Max. flow	45 lpm *
Pilot ratio	4.2:1
Weight	2 Kg
Manifold material	Aluminium



N°	Description	Q.ty
1	Bosch Rexroth counterbalance valve VBSO-SEC-30 *	2
2	Ø 5,5 through hole for mounting	4
3	OR 108 i. Ø 8,73 cross section 1,78	4

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue



Dimensions in mm



Ordering code

H	3	9	2	4	A	-	-	-	-	-
---	---	---	---	---	---	---	---	---	---	---

Hydrover product

Product series

39 series - Cetop 3 modular valves

Product ID

Manifold material

Aluminium

**Counterbalance valve
adjustment pressure range
on B ***

2 = 60-210 bar
3 = 100-350 bar

**Counterbalance valve
adjustment type on B ***

S = Screw

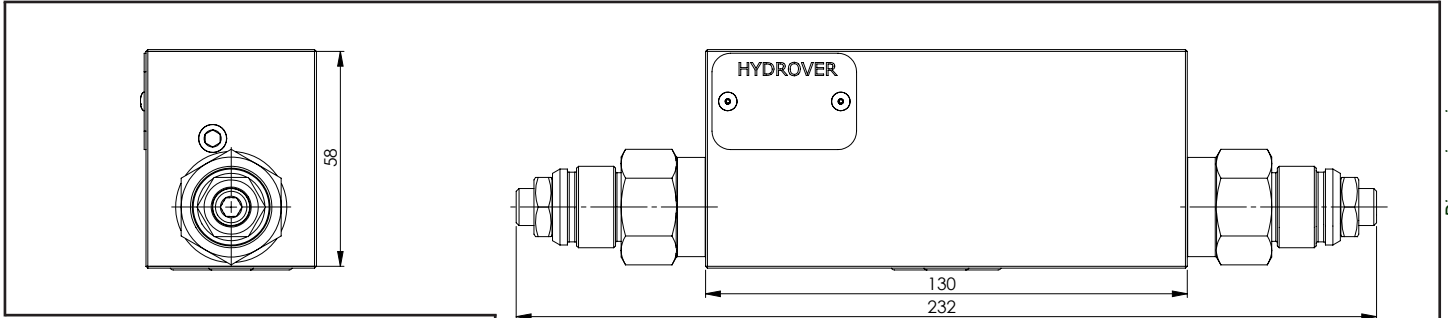
**Counterbalance valve
adjustment pressure range on A ***

2 = 60-210 bar
3 = 100-350 bar

**Counterbalance valve
adjustment type on A**

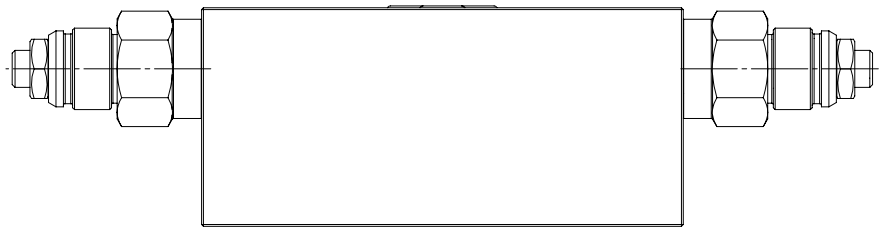
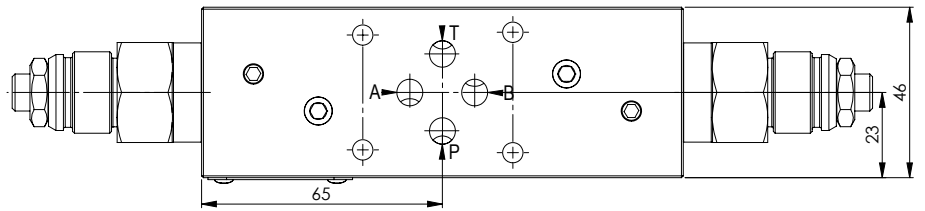
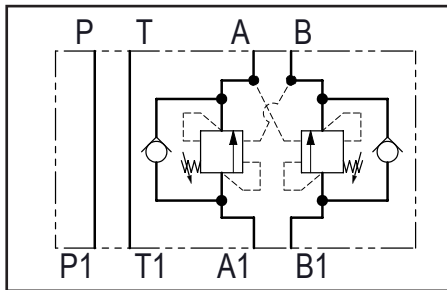
S = Screw

* Omit if not required. To order the product without the counterbalance cartridge valves, omit the adjustment type and pressure range options on A e B: H3924A.
The manifold will still be provided with the corresponding cavities.



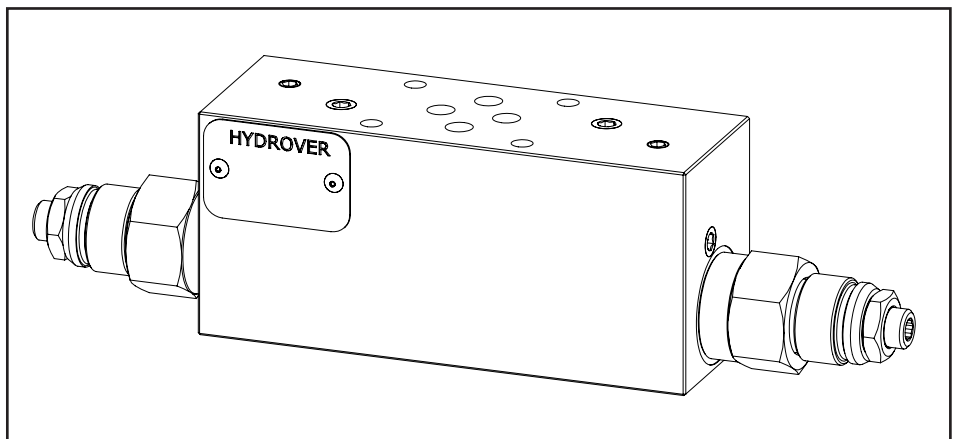
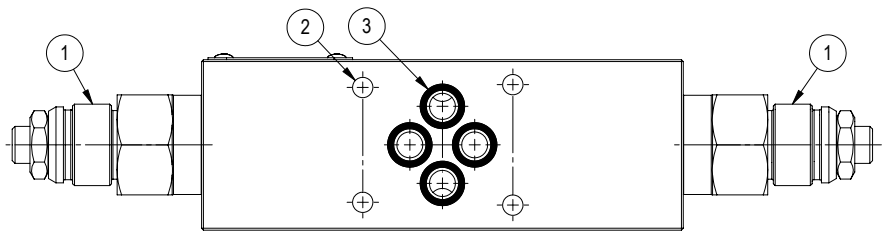
Dimensions in mm

Technical data	
Max. pressure	350 bar
Max. flow	60 lpm *
Weight	2,8 Kg
Manifold material	Steel



N°	Description	Q.ty
1	Bosch Rexroth counterbalance valve VBSN-10A *	2
2	Ø 5,5 through hole for mounting	4
3	OR 108 i. Ø 8,73 cross section 1,78	4

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue





Ordering code

H	3	9	8	4	S	-	-	-	-	-	-	-
---	---	---	---	---	---	---	---	---	---	---	---	---

Hydrover product

Product series

39 series - Cetop 3 modular valves

Product ID

Manifold material

Aluminium

Counterbalance valve adjustment type on A *

Screw

= S

Counterbalance valve adjustment pressure range on A *

70-210 bar

= 2

140-350 bar

= 3

Counterbalance valve

pilot ratio

on B *

3 = 3:1

8 = 8:1

Counterbalance valve adjustment pressure range on B *

2 = 70-210 bar

3 = 140-350 bar

Counterbalance valve adjustment type on B *

S =

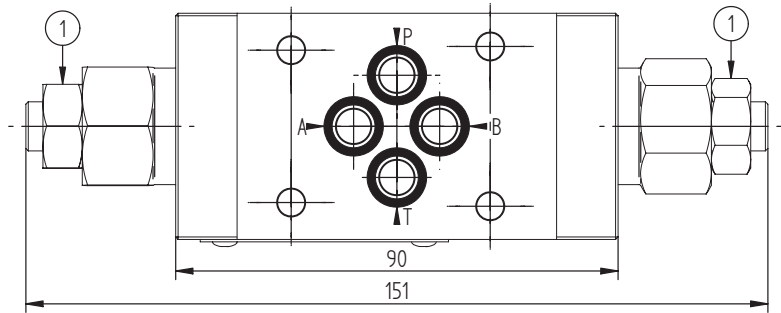
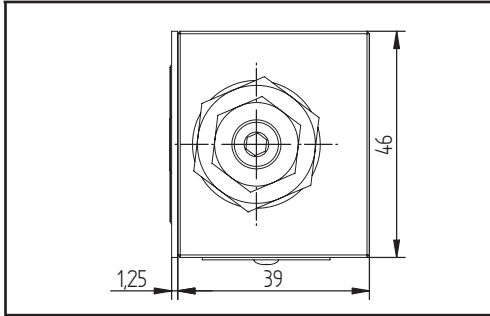
Screw

Counterbalance valve pilot ratio on A *

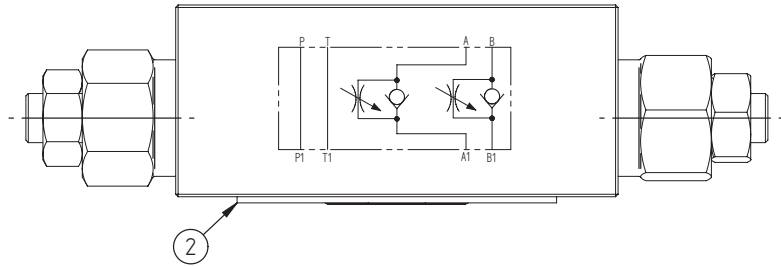
3 = 3:1

8 = 8:1

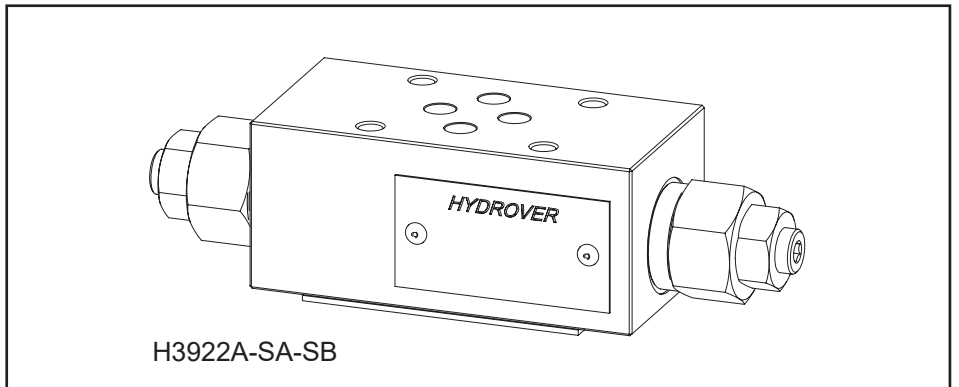
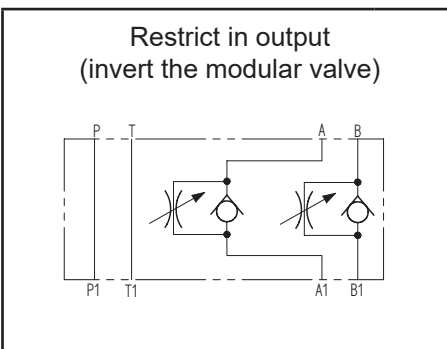
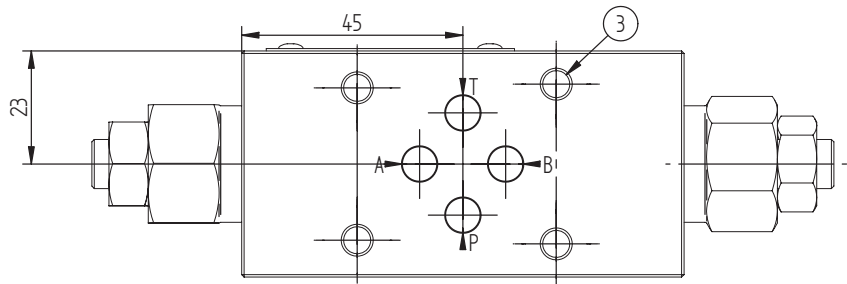
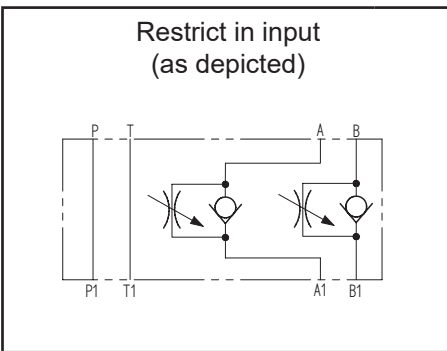
* Omit if not required. To order the product without the counterbalance cartridge valves, omit the adjustment type, pressure range and pilot ratio options: H3984A.
The manifold will still be provided with the corresponding cavities.



Dimensions in mm



Technical data	
Max. pressure	Aluminium: 250 bar Steel: 350 bar
Max. flow	40 lpm *
Weight with 1 valve	Aluminium: 0,7 Kg Steel: 1,4 Kg
Weight with 2 valves	Aluminium: 0,8 Kg Steel: 1,5 Kg
Manifold material	Aluminium o Steel



N°	Description	Q.ty
1	Bosch Rexroth unidirectional flow restrictor STVU-08A * depicted with screw adjustment	1/2
2	Seal plate	4
3	Ø 5,5 through hole for mounting	4

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue



Ordering code

H	3	9	2	2	_	-	_	_	-	_	_
---	---	---	---	---	---	---	---	---	---	---	---

Hydrover product

Product series

39 series - Cetop 3 modular valves

Product ID

Manifold material

Aluminium
Steel

= A
= S

Unidirectional flow restrictor on B

SB = Screw
KB = Knob
TB = Without flow restrictor

Unidirectional flow restrictor on A

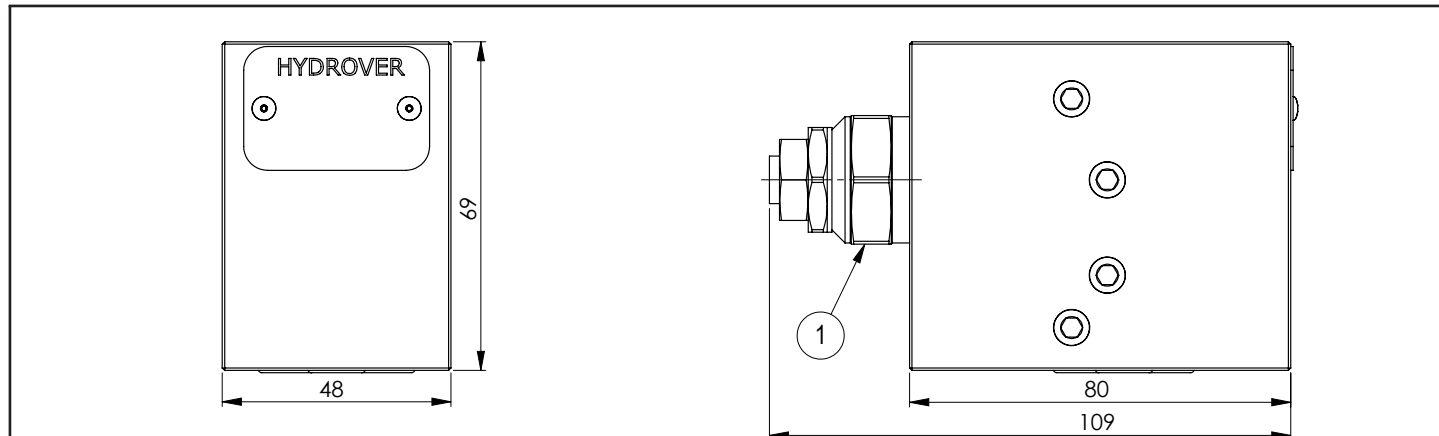
SA = Screw
KA = Knob
TA = Without flow restrictor

To inhibit one of the flow restrictors, substitute the related options with T: eg. H3922A-TA-SB.
In the cavity it will be mounted a short plug.

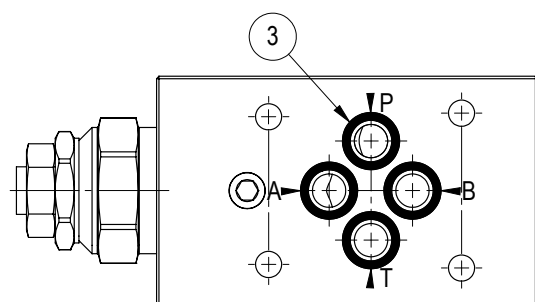
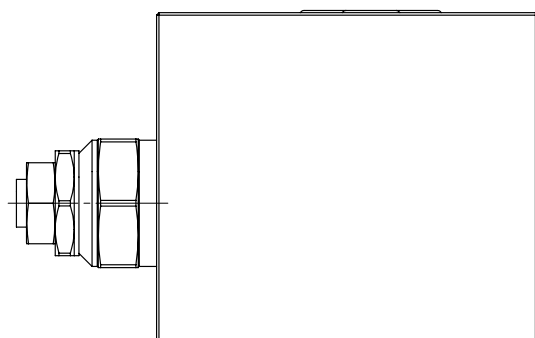
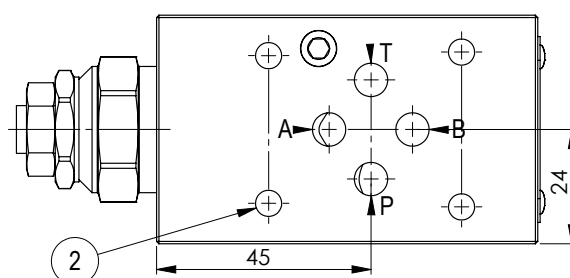
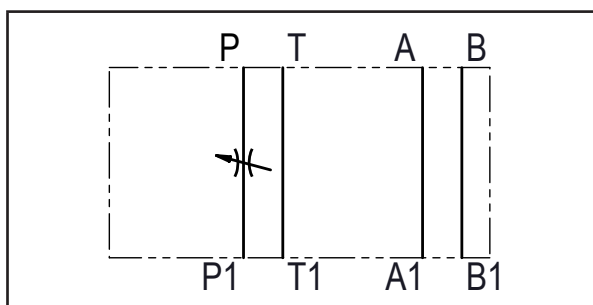
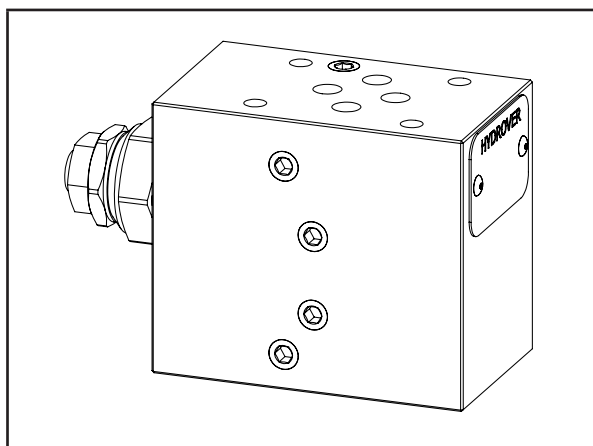
Valve	Cavity	Short plug code
Bosch Rexroth unidirectional flow restrictor STVU-08A	CA-08A-2N	R-800-008

Cetop 3 modular valve with bidirectional flow restrictor on P **H3956**

Dimensions in mm



Technical data	
Max. pressure	250 bar
Max. flow	60 lpm
Weight	0,82 Kg
Manifold material	Aluminium



N°	Description	Q.ty
1	Bosch Rexroth bidirectional flow restrictor OD.21.01-X-36 * depicted with screw adjustment.	1
2	Ø 5,5 through hole for mounting	4
3	OR 108 i. Ø 8,73 cross section 1,78	4

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue

H3956

Ordering code

H	3	9	5	6	A	_	Q
---	---	---	---	---	---	---	---

Hydrover product

Product series

39 series - Cetop 3 modular valves

Product ID

Flow restrictor adjustment type

S =

Screw

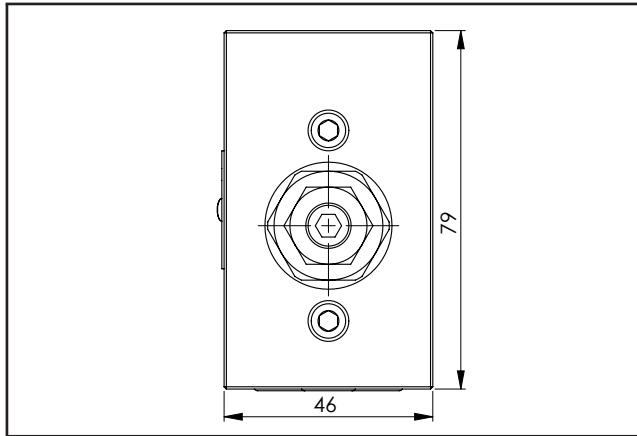
K =

Knob

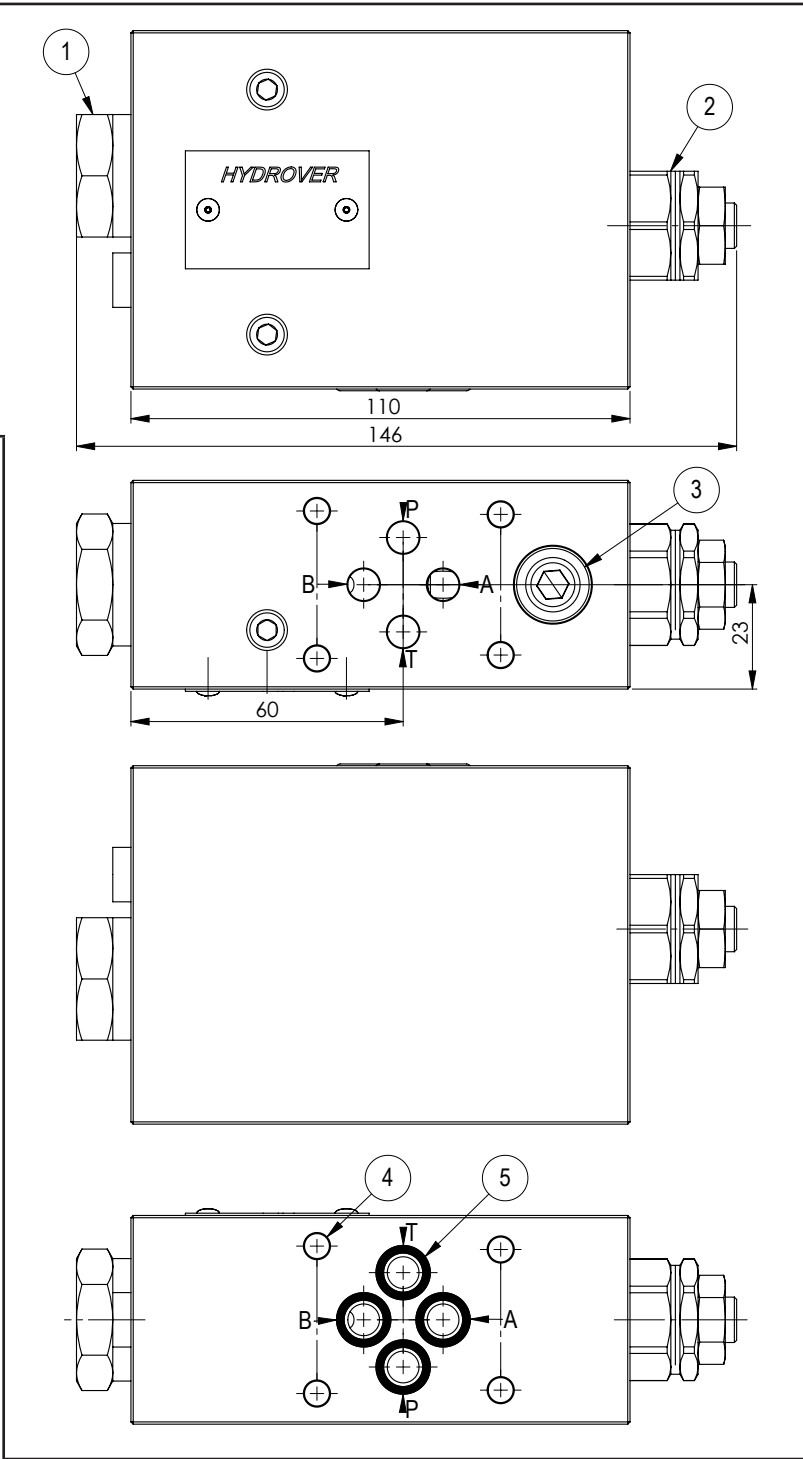
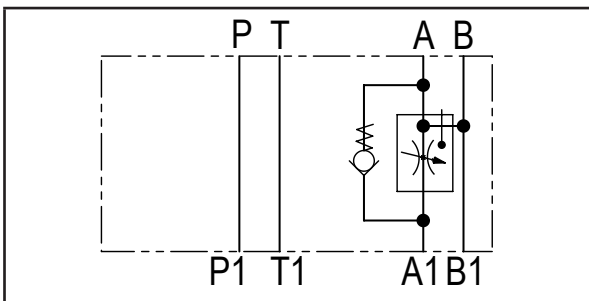
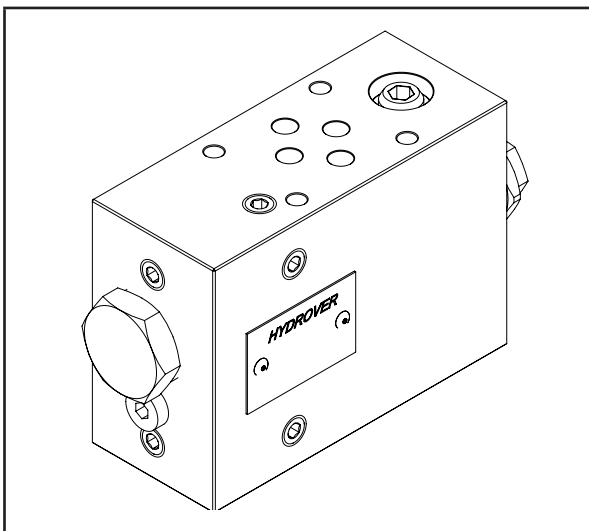
Manifold material

Aluminium

Cetop 3 modular 3 way compensated flow regulator valve on A **H3947**



Technical data	
Max. pressure	250 bar
Max. flow	30 lpm
Weight	1,3 Kg
Manifold material	Aluminium



Dimensions in mm

N°	Description	Q.ty
1	Pressure compensator	1
2	Bosch Rexroth bidirectional flow restrictor OD.21.01-X-56 * depicted with screw adjustment.	1
3	Check valve	4
4	Ø 5,5 through hole for mounting	4
5	OR 108 i. Ø 8,73 cross section 1,78	4

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue



Ordering code

H	3	9	4	7	A	_	_	Q
---	---	---	---	---	---	---	---	---

Hydrover product

Product series

39 series - Cetop 3 modular valves

Product ID

Flow regulator adjustment type

S = Screw
K = Knob

Compensator spring

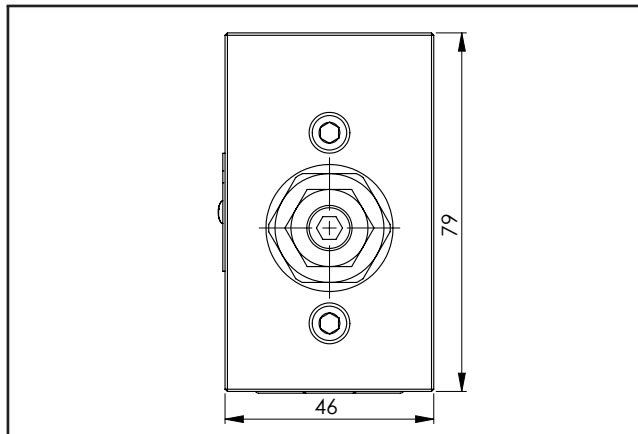
6 = 6 bar (standard)
1 = 12 bar

Manifold material

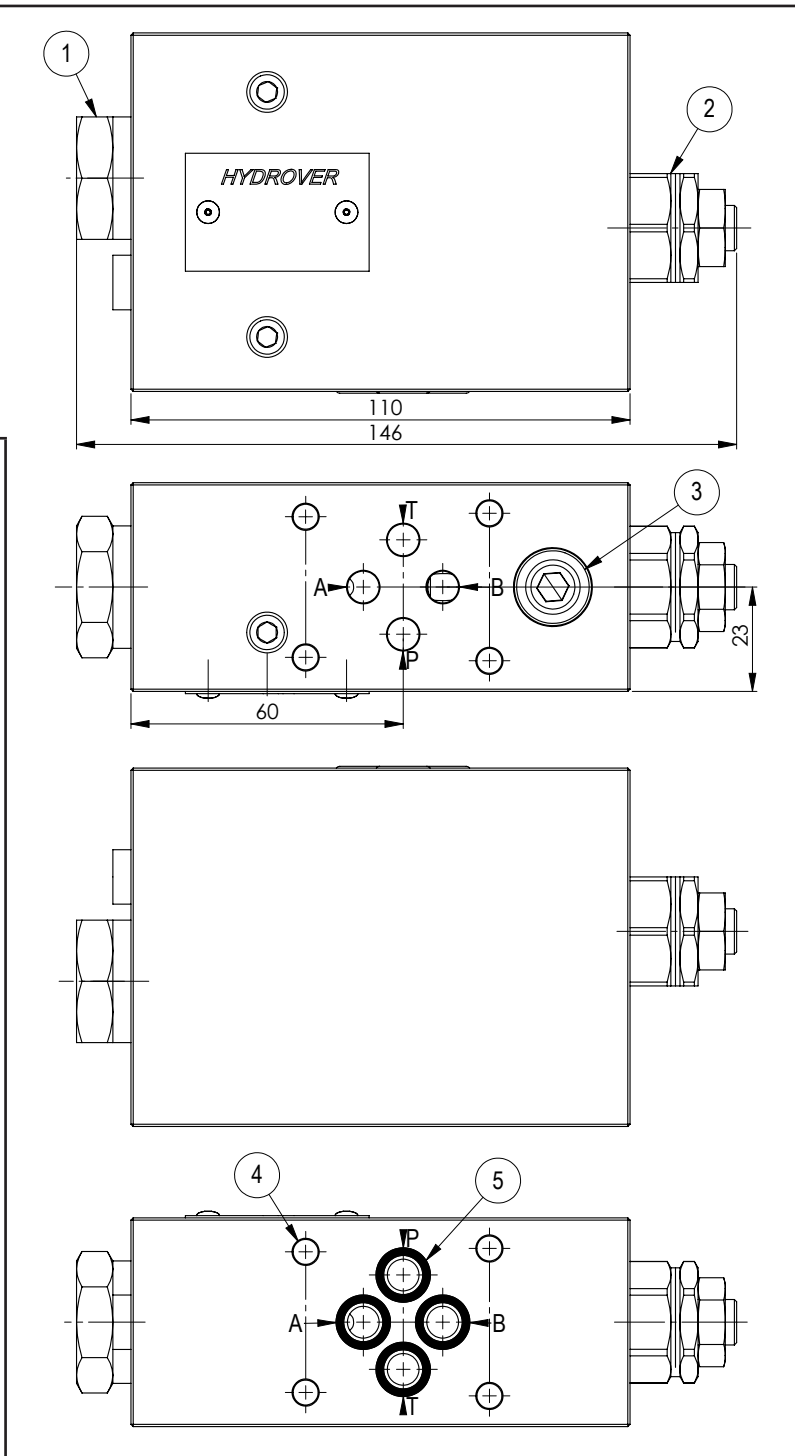
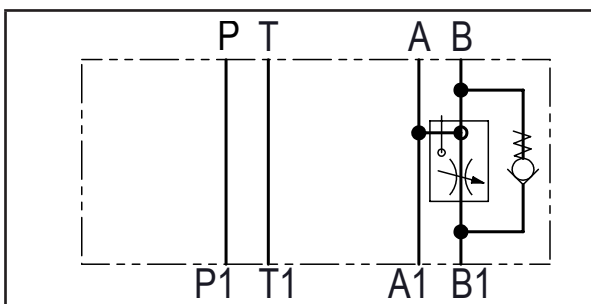
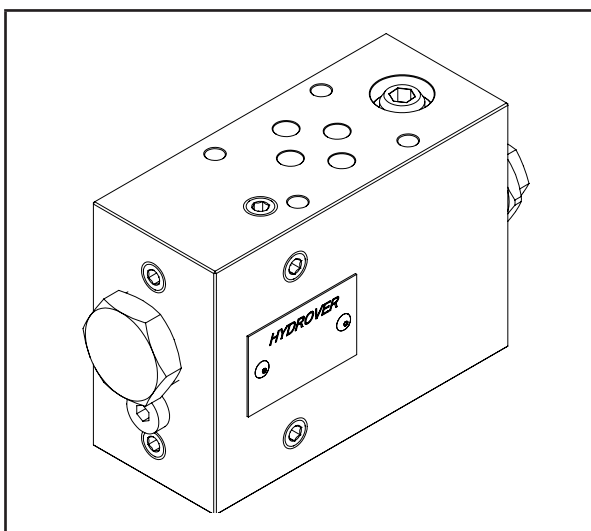
Aluminium

Cetop 3 modular 3 way compensated flow regulator valve on B **H3930**

Dimensions in mm



Technical data	
Max. pressure	250 bar
Max. flow	30 lpm
Weight	1,3 Kg
Manifold material	Aluminium



N°	Description	Q.ty
1	Pressure compensator	1
2	Bosch Rexroth bidirectional flow restrictor OD.21.01-X-56 * depicted with screw adjustment	1
3	Bosch Rexroth check valve	4
4	Ø 5,5 through hole for mounting	4
5	OR 108 i. Ø 8,73 cross section 1,78	4

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue

Ordering code

H	3	9	3	0	A	_	_	Q
---	---	---	---	---	---	---	---	---

Hydrover product

Product series

39 series - Cetop 3 modular valves

Product ID

Flow regulator adjustment type

S = Screw
K = Knob

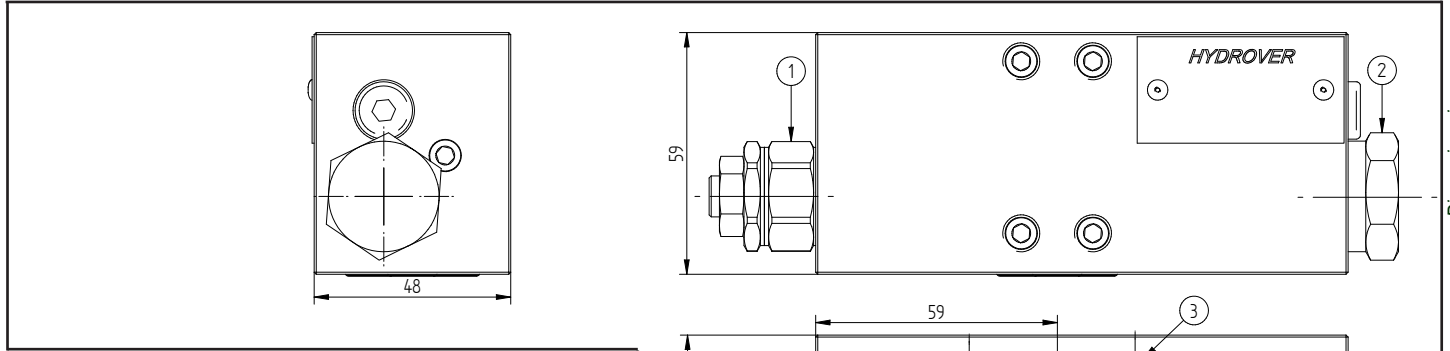
Compensator spring

6 = 6 bar (standard)
1 = 12 bar

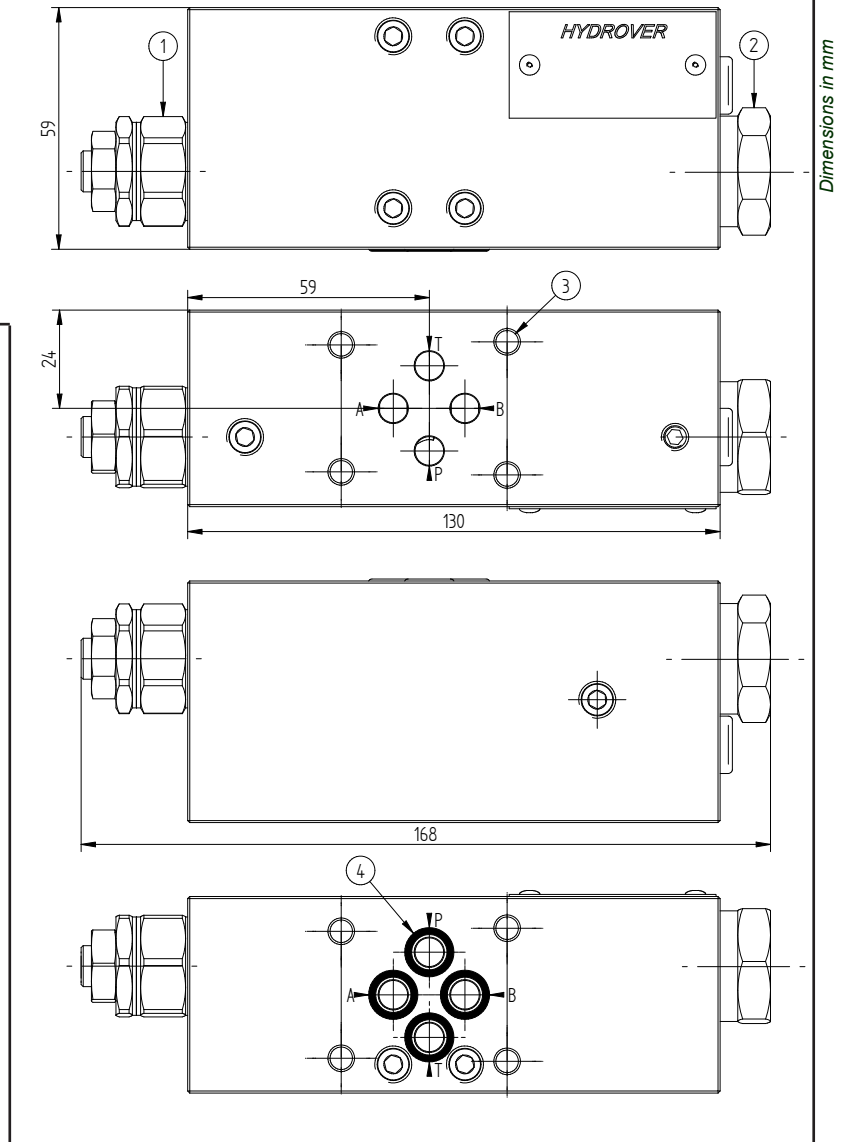
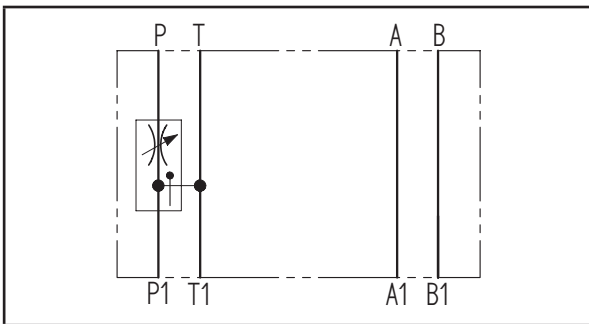
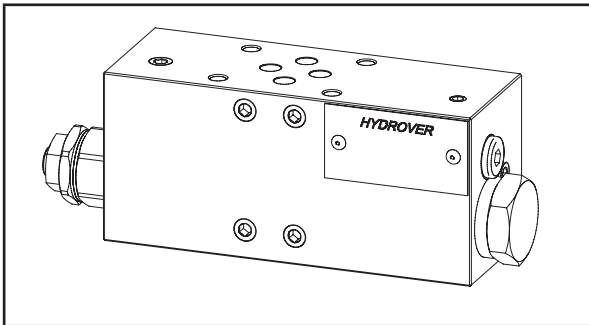
Manifold material

Aluminium

Cetop 3 modular 3 way compensated flow regulator valve on P **H3907**



Technical data	
Max. flow	30 lpm
With Aluminium manifold	
Max. pressure	250 bar
Weight	1,2 Kg
With steel manifold	
Max. pressure	350 bar
Weight	2,8 Kg



Dimensions in mm

N°	Description	Q.ty
1	Bosch Rexroth bidirectional flow restrictor OD.21.01-X-56 * depicted with screw adjustment	1
2	Pressure compensator	1
3	Ø 5,5 through hole for mounting	4
4	OR 108 i. Ø 8,73 cross section 1,78	4

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue

Ordering code

H 3 9 0 7 _ _ _ Q

Hydrover product

Product series

39 series - Cetop 3 modular valves

Product ID

Flow regulator adjustment type

S = Screw
K = Knob

Compensator spring

6 = 6 bar (standard)
1 = 12 bar

Manifold material

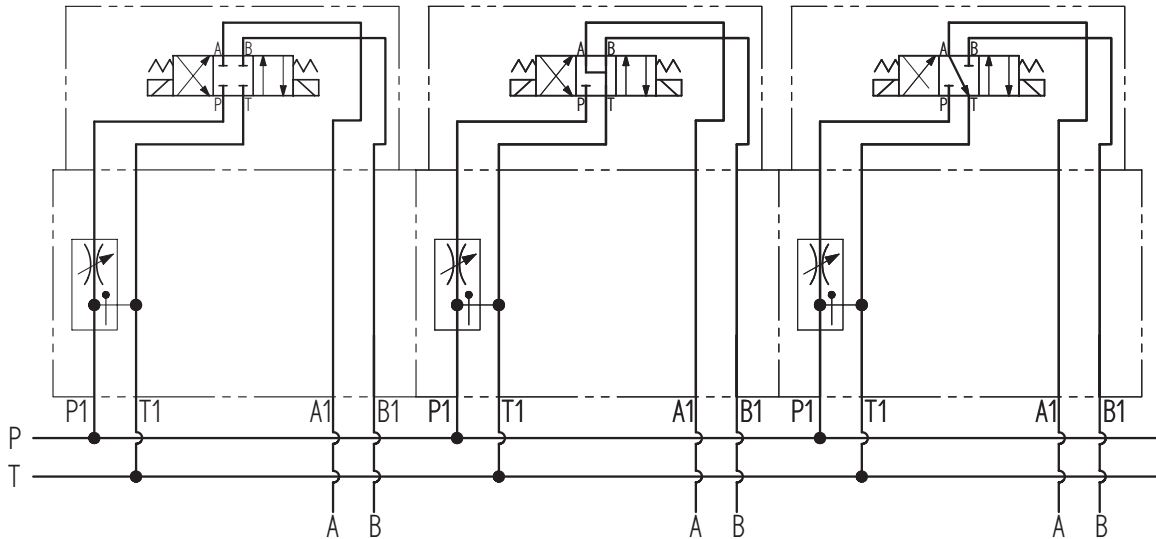
A = Aluminium
S = Steel

Notes:

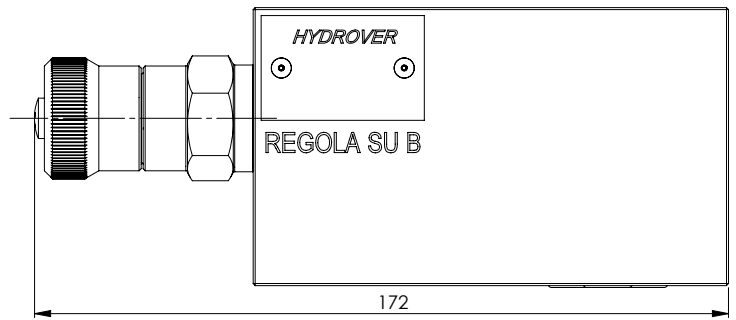
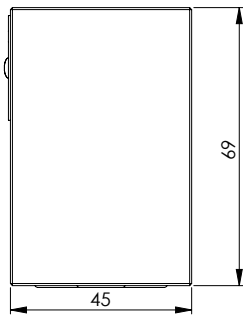
With the 3 way compensated flow regulation it's possible to work to the load pressure plus 4/12 bar (compensator spring) rather than at the maximum pressure valve setting as with the 2 way type.

You can use several modular 3 way compensated flow regulation valves in parallel (see example), but:

- the solenoid valves must have the P closed
- you can't do simultaneous actions
- you can't close completely one or more flow regulators



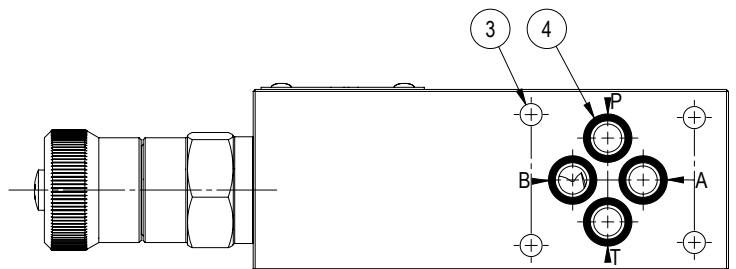
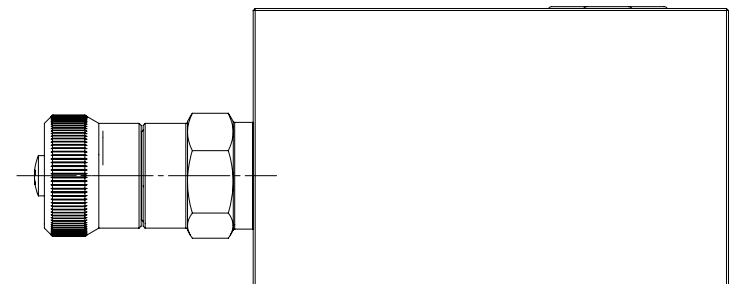
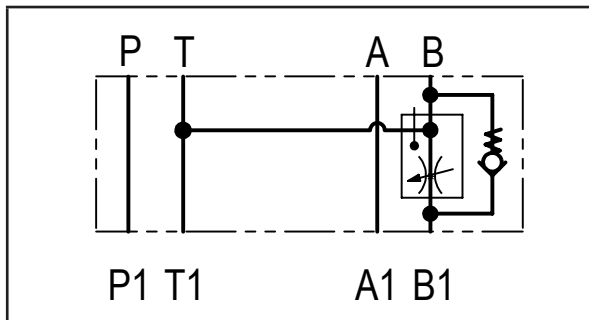
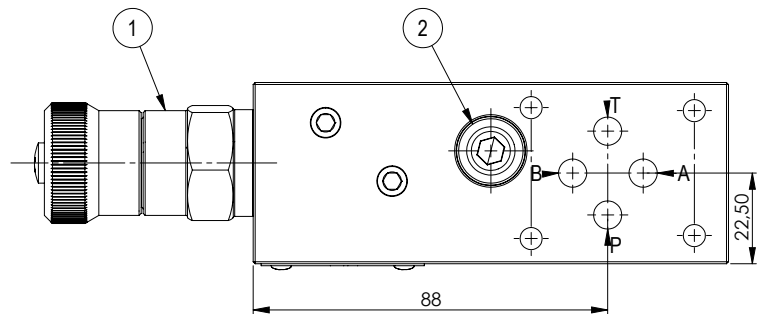
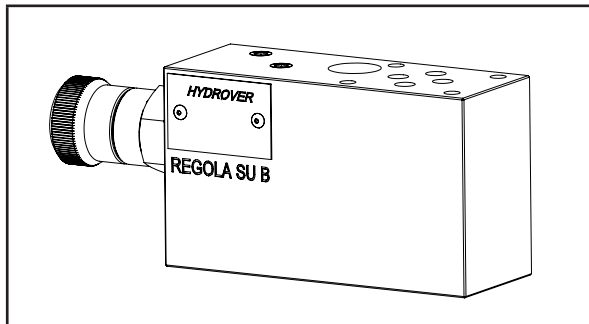
Cetop 3 modular 3 way compensated priority flow regulator valve on B **H3961**



Dimensions in mm

Technical data

Max. pressure	250 bar
Max. flow	60 lpm *
Regulated max. flow	30 lpm *
Weight	1,1 Kg
Manifold material	Aluminium



N°	Description	Q.ty
1	Bosch Rexroth 3 way compensated flow regulator 04.04.02.40.85.40 - VRFD-10A-M-40*	1
2	Bosch Rexroth check valve	1
3	Ø 5,5 through hole for mounting	4
4	OR 108 i. Ø 8,73 cross section 1,78	4

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue



Ordering code

H	3	9	6	1	A	-	_	_
---	---	---	---	---	---	---	---	---

Hydrover product

Product series

39 series - Cetop 3 modular valves

Product ID

Flow regulator range*

0,2 - 30 lpm

3=

Flow regulator adjustment type*

Calibrated knob

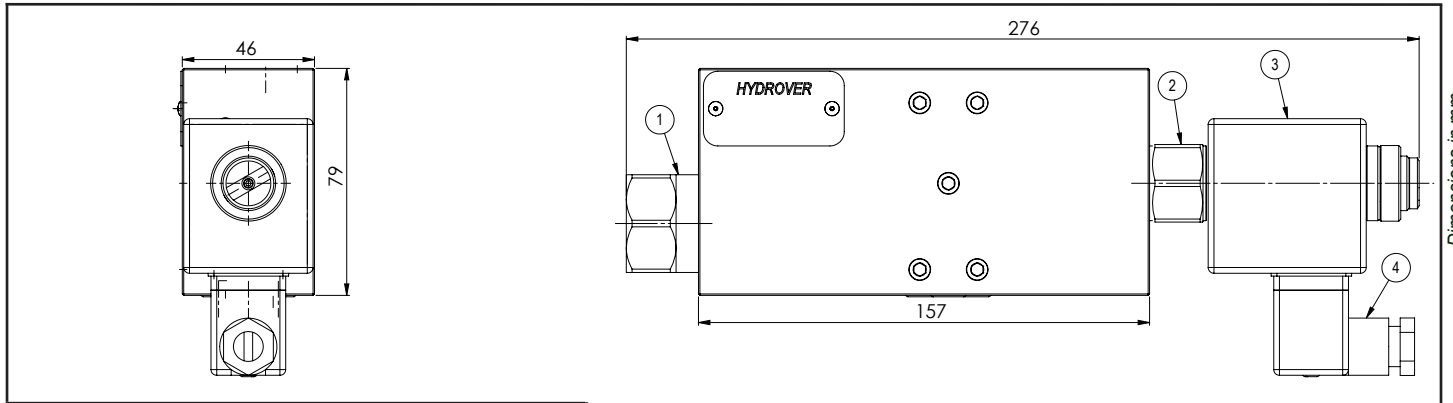
C=

Manifold material

Aluminium

Product available on request also on P or A.

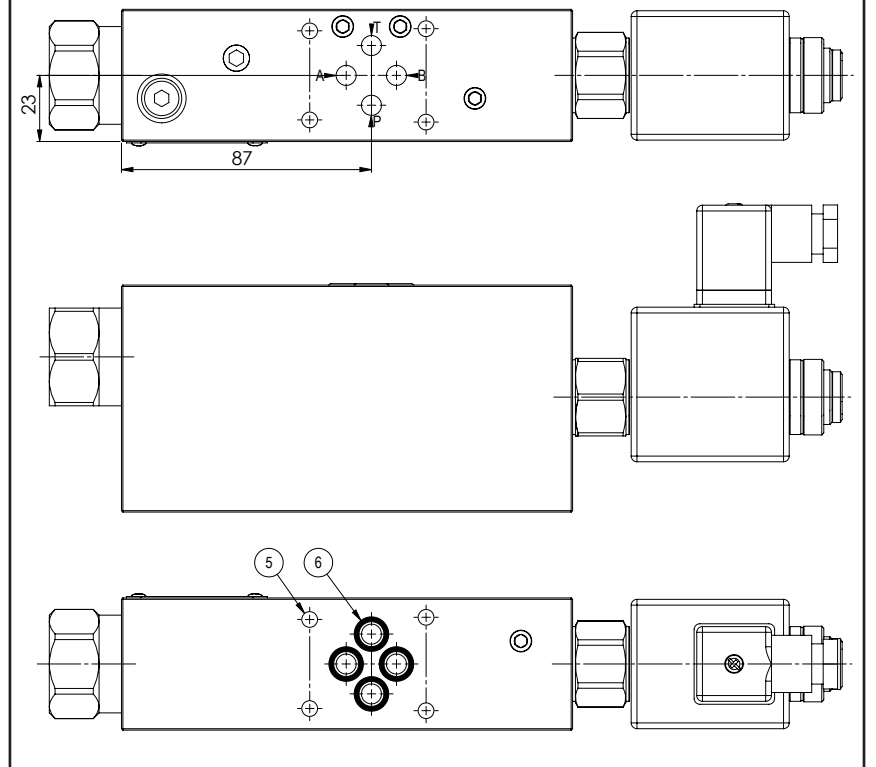
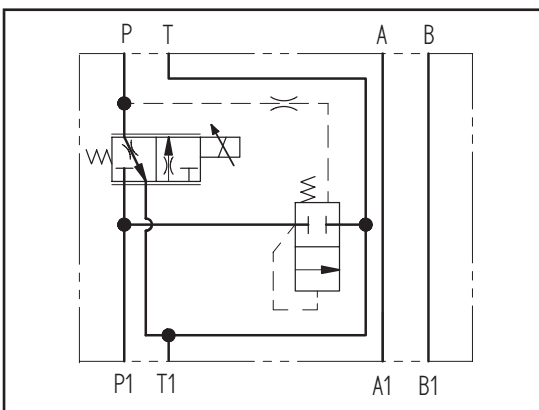
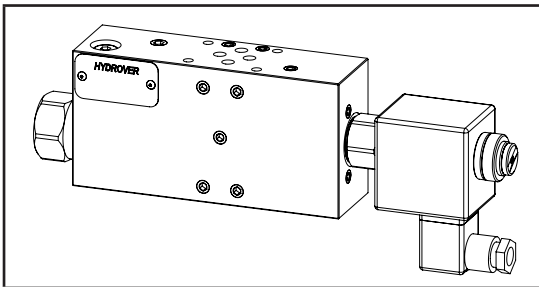
* Omit if not required. To order the product without the flow regulator cartridge valve, omit the flow regulator adjustment type and flow range options: H3961A.
The manifold will still be provided with the corresponding cavity.

Cetop 3 modular 3 way compensated proportional flow regulator valve on P **H3912**

Dimensions in mm

Technical data

Max. pressure	210 bar
Input max. flow	65 lpm
Weight	2,2 Kg
Manifold material	Aluminium



N°	Description	Q.ty
1	Pressure compensator	1
2	Bosch Rexroth proportional solenoid valve VEP-5A-2Q-09 / OD.92.05.77-Y-Z *	1
3	Bosch Rexroth coil S5-356 - CLASS H DIN 43650 ISO 4400 *	1
4	Connector DIN 43650 ISO 4400	1
5	Ø 5,5 through hole for mounting	4
6	OR 108 i. Ø 8,73 cross section 1,78	4

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue



Ordering code

H	3	9	1	2	A	_	_	_	_	-	_	_	_
---	---	---	---	---	---	---	---	---	---	---	---	---	---

Hydrover product

Product series

39 series - Cetop 3 modular valves

Product ID

Manifold material

Aluminium

Compensator spring

5.5 bar (standard)	= 6
12.5 bar	= 1
19 bar	= 2

Proportional solenoid valve coil connection *

1 = DIN 43650 ISO 4400

Proportional solenoid valve coil voltage *

OB =	12V DC
OC =	24V DC

Proportional solenoid valve max. flow *

1 =	20 lpm
2 =	30 lpm
3 =	40 lpm

To evaluate the max. flow refer to **VEP-5A-2Q-09 / OD.92.05.77-Y-Z** proportional solenoid valve catalogue and to the compensator spring.

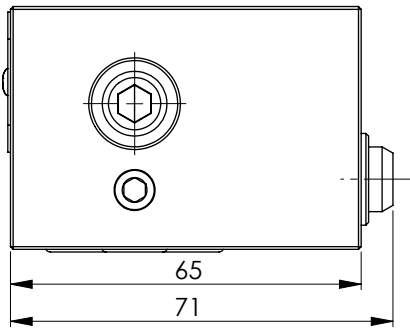
Proportional solenoid valve manual override *

E0 =	Without
EV =	Screw

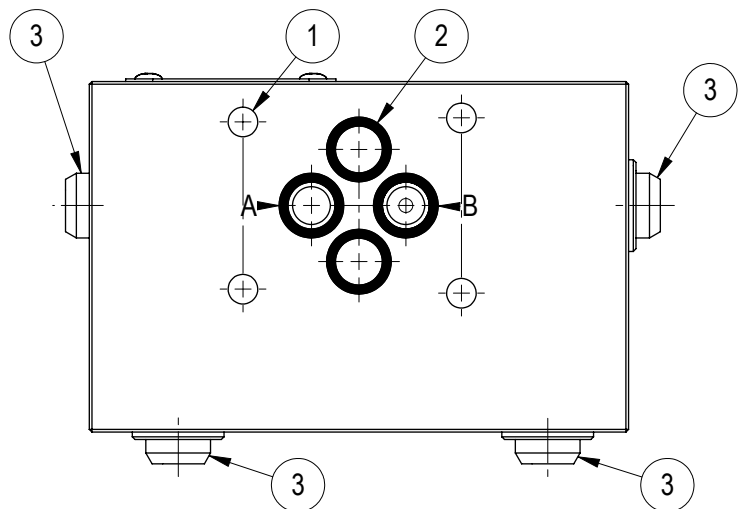
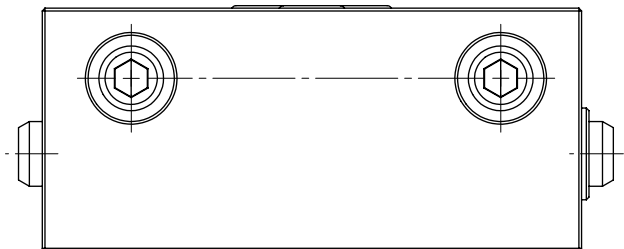
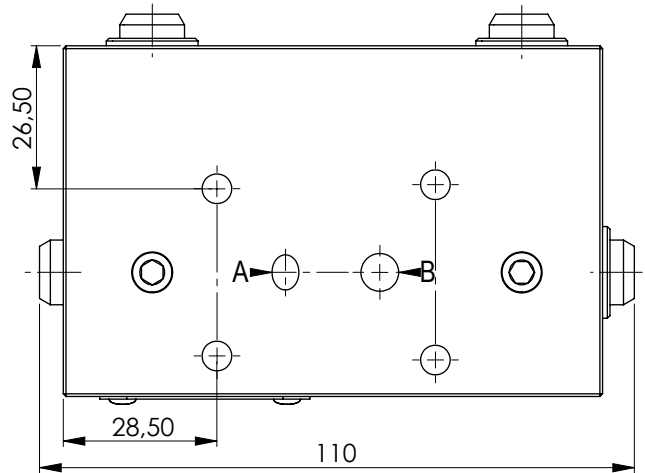
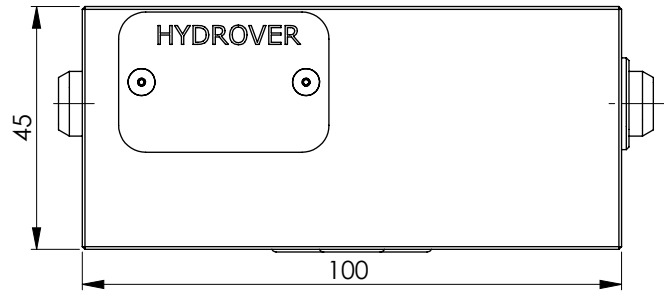
* Omit if not required. For example, to order the product without the proportional solenoid cartridge valve, omit the coil connection, coil voltage, max. flow and manual override options: H3912A6.
The manifold will still be provided with the corresponding cavity.

Cetop 3 modular bridge of wheatstone rectifier for 2 way flow regulator **H3991**

Dimensions in mm

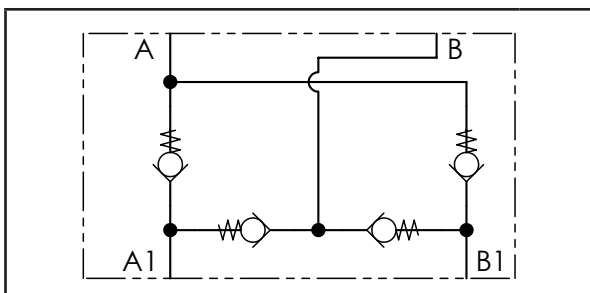
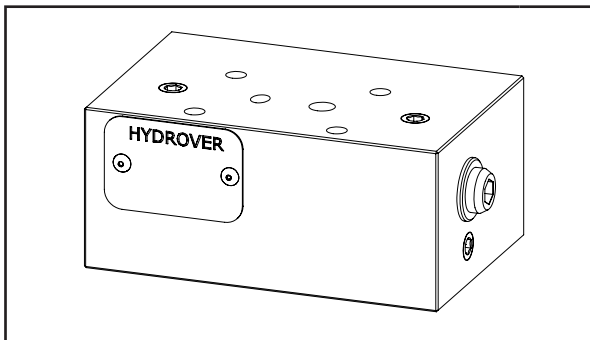


Please note that the standard width of a Cetop 3 modular valve is 45 mm. This one is 71 mm. Consequently, the potential station on the check valve side must be empty.



Technical data

Max. pressure	250 bar
Max. flow	15 lt/1
Weight	0,9 Kg
Manifold material	Aluminium



N°	Description	Q.ty
1	Ø 5,5 through hole for mounting	4
2	OR 108 i. Ø 8,73 cross section 1,78	4
3	Bosch Rexroth check valve	4



Ordering code

H	3	9	9	1	A
---	---	---	---	---	---

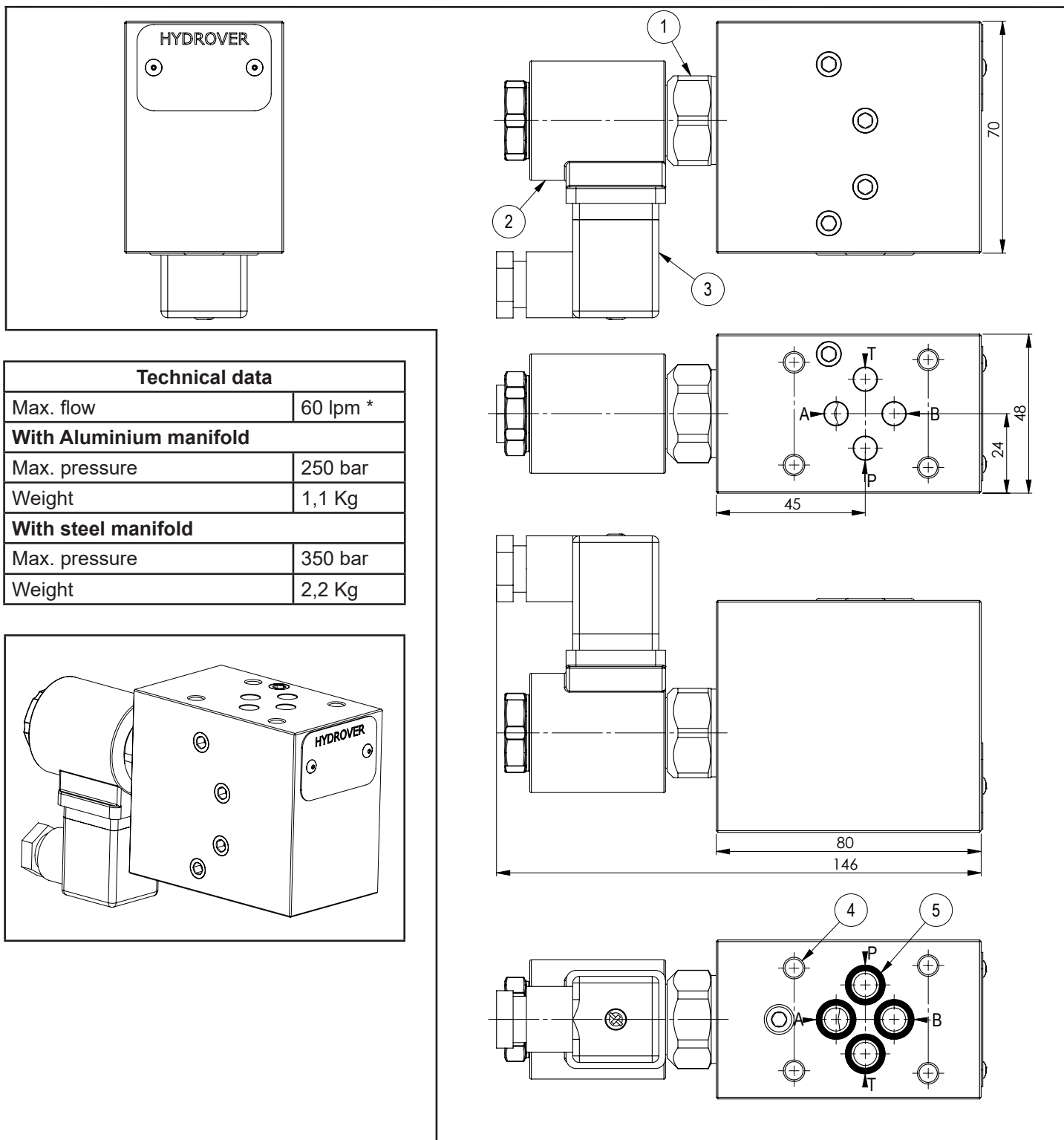
Hydrover product

Manifold material
Aluminium

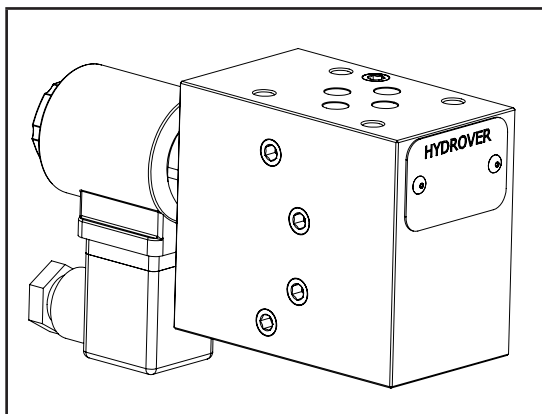
Product series

39 series - Cetop 3 modular valves

Product ID



Technical data	
Max. flow	60 lpm *
With Aluminium manifold	
Max. pressure	250 bar
Weight	1,1 Kg
With steel manifold	
Max. pressure	350 bar
Weight	2,2 Kg



N°	Description	Q.ty
1	Bosch Rexroth solenoid valve VEI-16-10A-NC OD.15-X-36-Y-000000 (normally closed) or VEI-16-10A-NA OD.15-X-36-Y-000000 (normally open) depicted without manual override *	1
2	Bosch Rexroth coil D36 - CLASS H DIN 43650 ISO 4400 *	1
3	Connector DIN 43650 ISO 4400	1
4	Ø 5,5 through hole for mounting	4
5	OR 108 i. Ø 8,73 cross section 1,78	4

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue

Ordering code

H 3 9 3 4 _ - _ - - _ - _ -

Hydrover product

Product series

39 series - Cetop 3 modular valves

Product ID

Manifold material

Aluminium

= A

Steel

= S

Solenoid valve spool type *

Normally open

= NA

Normally closed

= NC

Normally open double lock

= 2A

Normally closed double lock

= 2C

Solenoid valve coil connection *

1 = DIN 43650 ISO 4400

Solenoid valve coil voltage *

OB = 12V DC

OC = 24V DC

OD = 48V DC

OU = 110V RAC

AH = 230V RAC

Solenoid valve manual override *

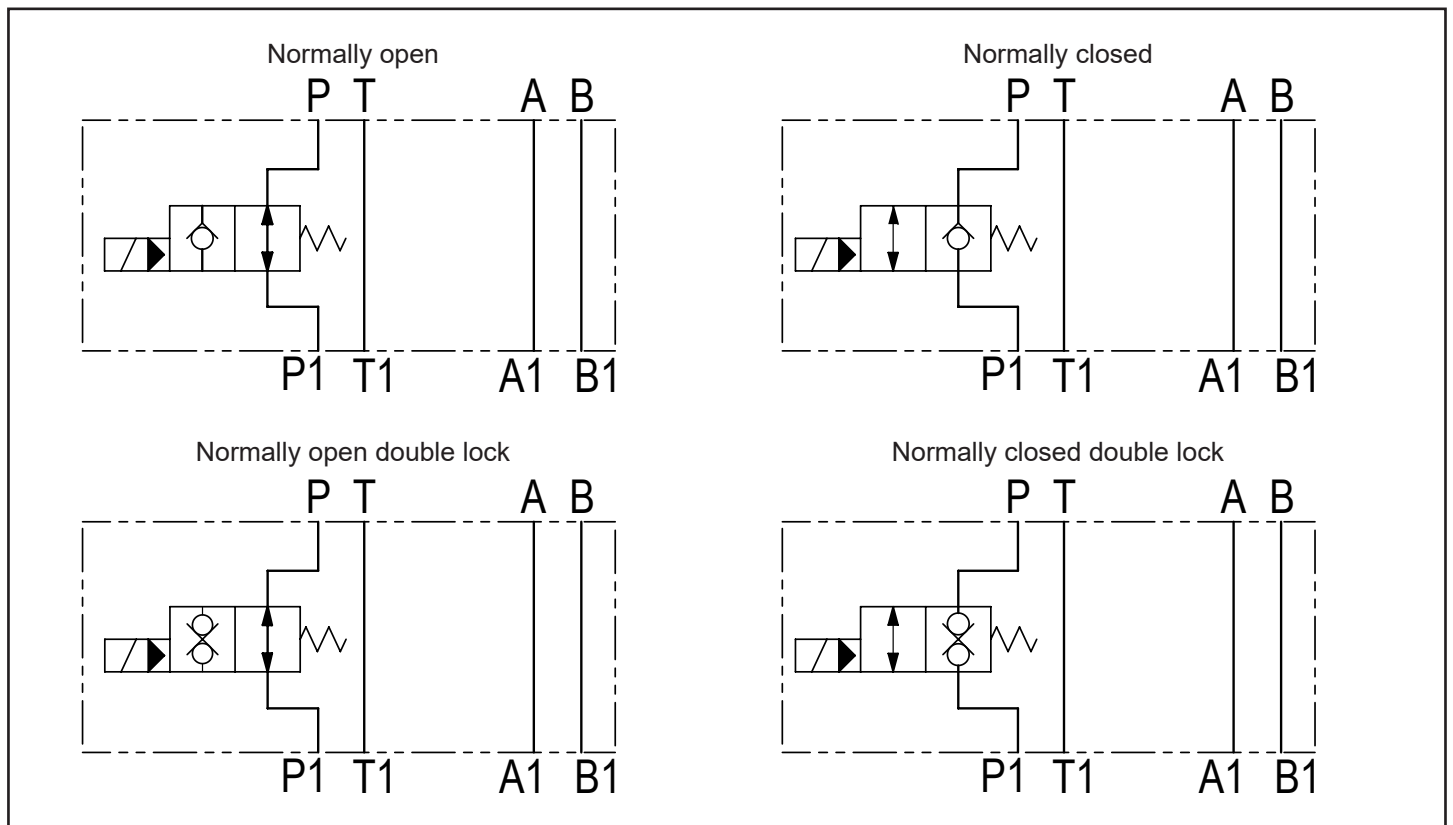
E0 = Without

EP = Push (NA, 2A)

EV = Screw (NC, 2C)

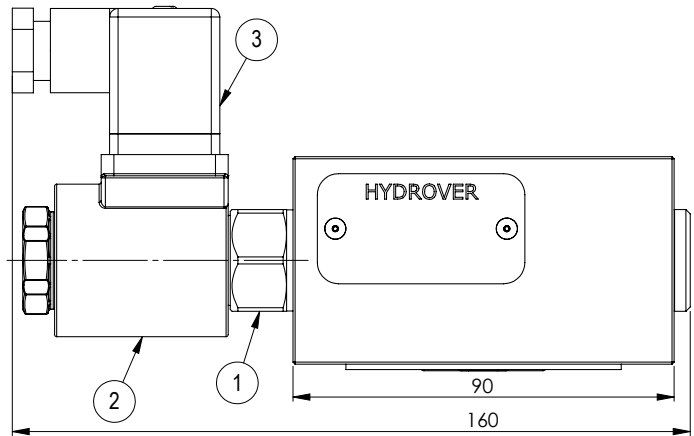
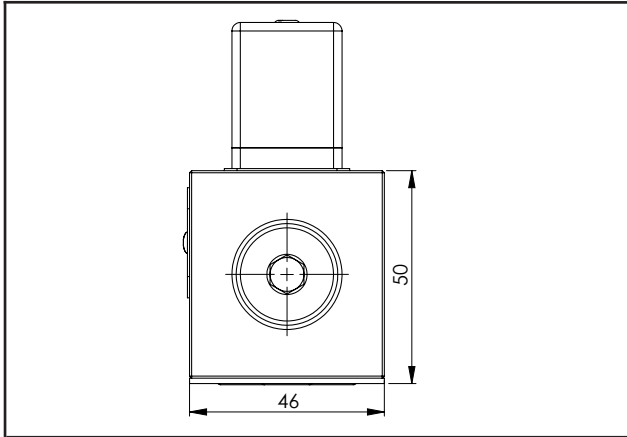
EG = Push and twist (NA, 2A)

* Omit if not required. For example, to order the product without coil, omit the solenoid valve coil connection and coil voltage options: H3934A-NC-E0.

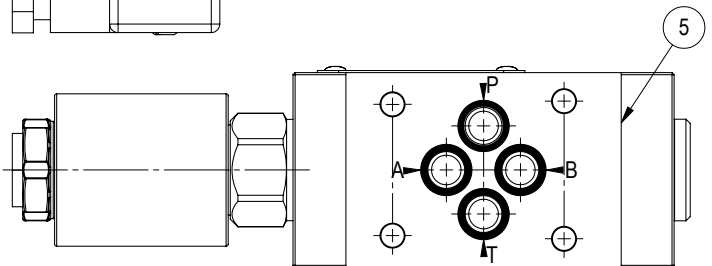
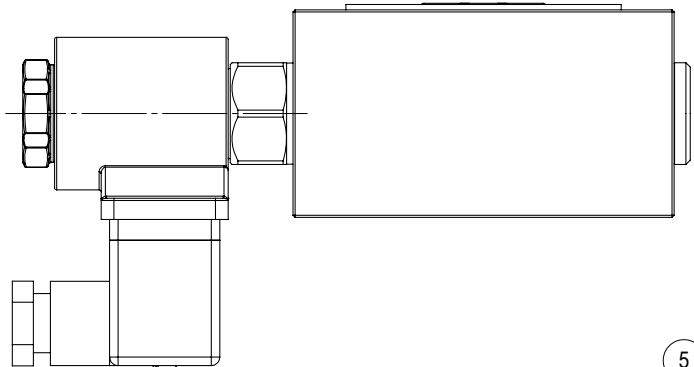
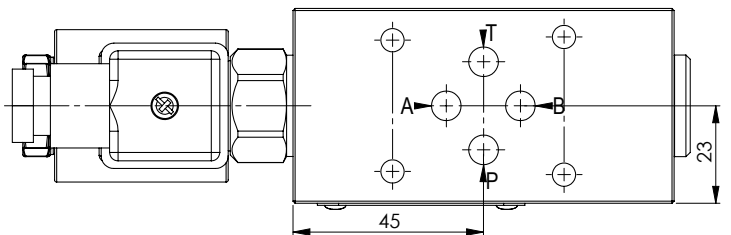
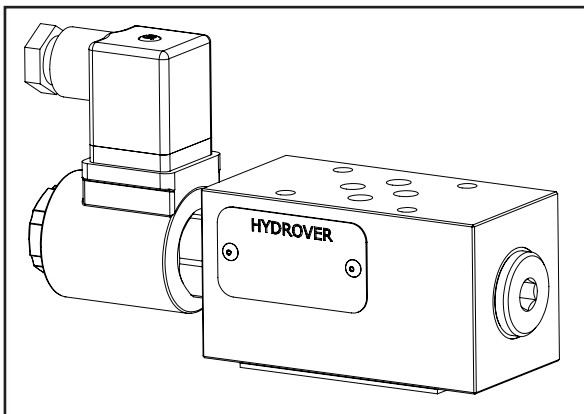


Cetop 3 modular poppet type solenoid operated directional valve
between A1 and A / 40 lpm

H3965



Technical data	
Max. pressure	250 bar
Max. flow	40 lpm *
Weight	1 Kg
Manifold material	Aluminium



Dimensions in mm

N°	Description	Q.ty
1	Bosch Rexroth solenoid valve VEI-16-08A-NC OD.15-X-18-Y-000000 (normally closed) or VEI-16-08A-NA OD.15-X-18-Y-000000 (normally open) depicted without manual override *	1
2	Bosch Rexroth coil D36 - CLASS H DIN 43650 ISO 4400 *	1
3	Connector DIN 43650 ISO 4400	1
4	Ø 5,5 through hole for mounting	4
5	Seal plate	1

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue

Ordering code

H 3 9 6 5 A - - - - -

Hydrover product

Product series

39 series - Cetop 3 modular valves

Product ID

Manifold material

Aluminium

Solenoid valve spool type *

- Normally open = NA
- Normally closed = NC
- Normally open double lock = 2A
- Normally closed double lock = 2C

Solenoid valve coil connection *

1 = DIN 43650 ISO 4400

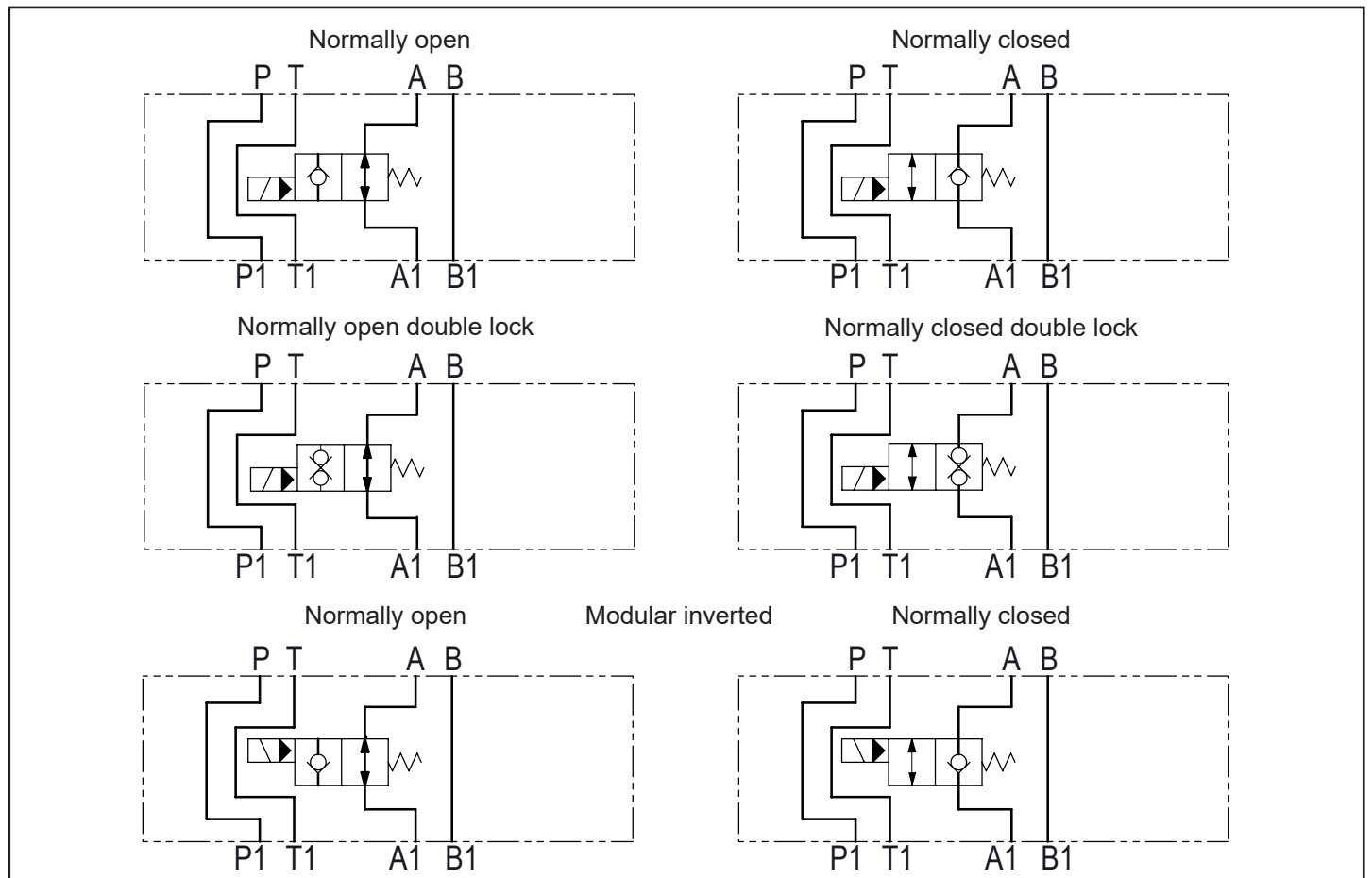
Solenoid valve coil voltage *

- OB = 12V DC
- OC = 24V DC
- OD = 48V DC
- OU = 110V RAC
- AH = 230V RAC

Solenoid valve manual override *

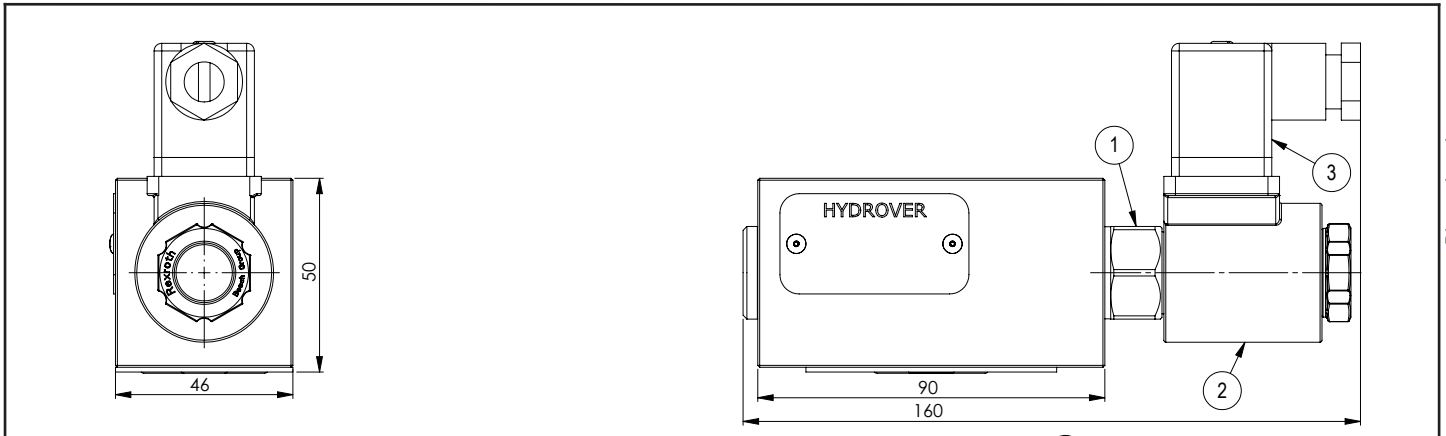
- E0 = Without
- EP = Push (NA, 2A)
- EV = Screw (NC, 2C)
- EG = Push and twist (NA, 2A)

* Omit if not required. For example, to order the product without coil, omit the solenoid valve coil connection and coil voltage options: H3965A-NC-E0.



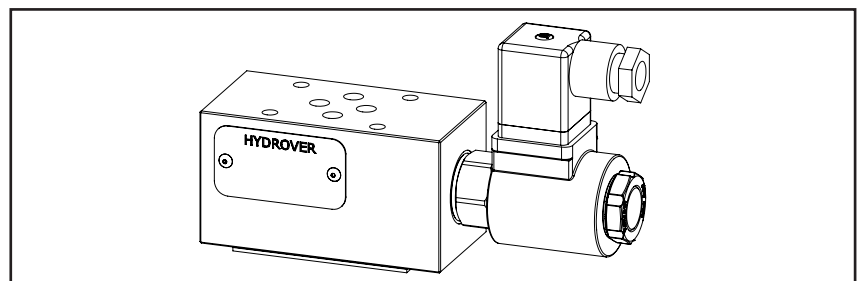
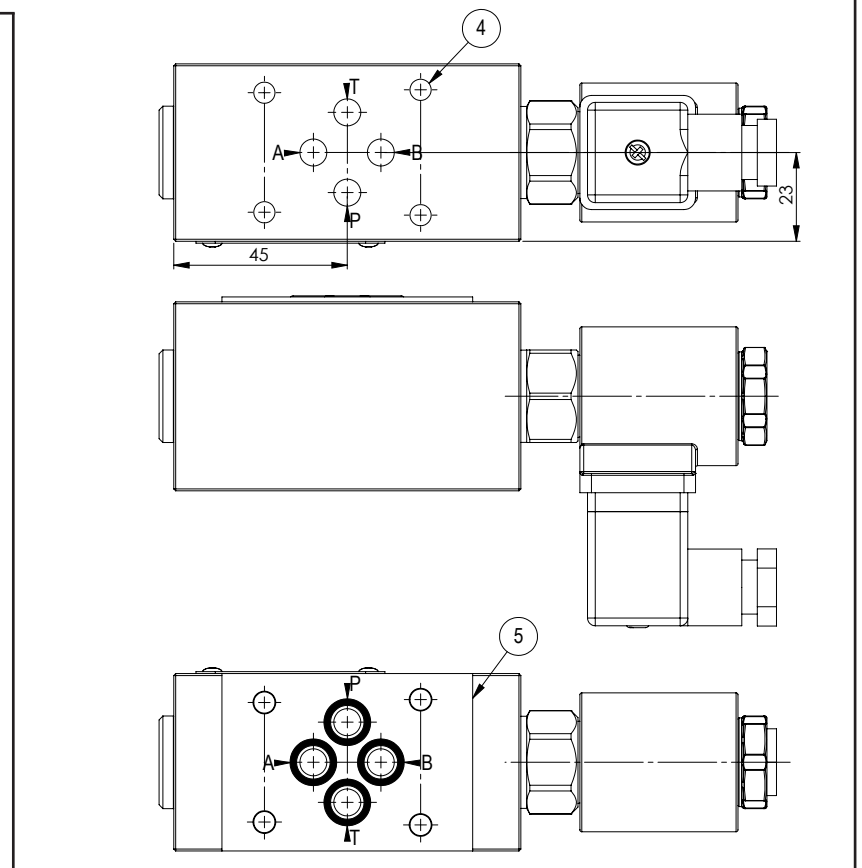
Cetop 3 modular poppet type solenoid operated directional valve
between B1 and B / 40 lpm

H3966



Dimensions in mm

Technical data	
Max. pressure	250 bar
Max. flow	40 lpm *
Weight	1 Kg
Manifold material	Aluminium



N°	Description	Q.ty
1	Bosch Rexroth solenoid valve VEI-16-08A-NC OD.15-X-18-Y-000000 (normally closed) or VEI-16-08A-NA OD.15-X-18-Y-000000 (normally open) depicted without manual override *	1
2	Bosch Rexroth coil D36 - CLASS H DIN 43650 ISO 4400 *	1
3	Connector DIN 43650 ISO 4400	1
4	Ø 5,5 through hole for mounting	4
5	Seal plate	1

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue

Ordering code

H 3 9 6 6 A - - - - -

Hydrover product

Product series

39 series - Cetop 3 modular valves

Product ID

Manifold material

Aluminium

Solenoid valve spool type *

- Normally open = NA
- Normally closed = NC
- Normally open double lock = 2A
- Normally closed double lock = 2C

Solenoid valve coil connection *

1 = DIN 43650 ISO 4400

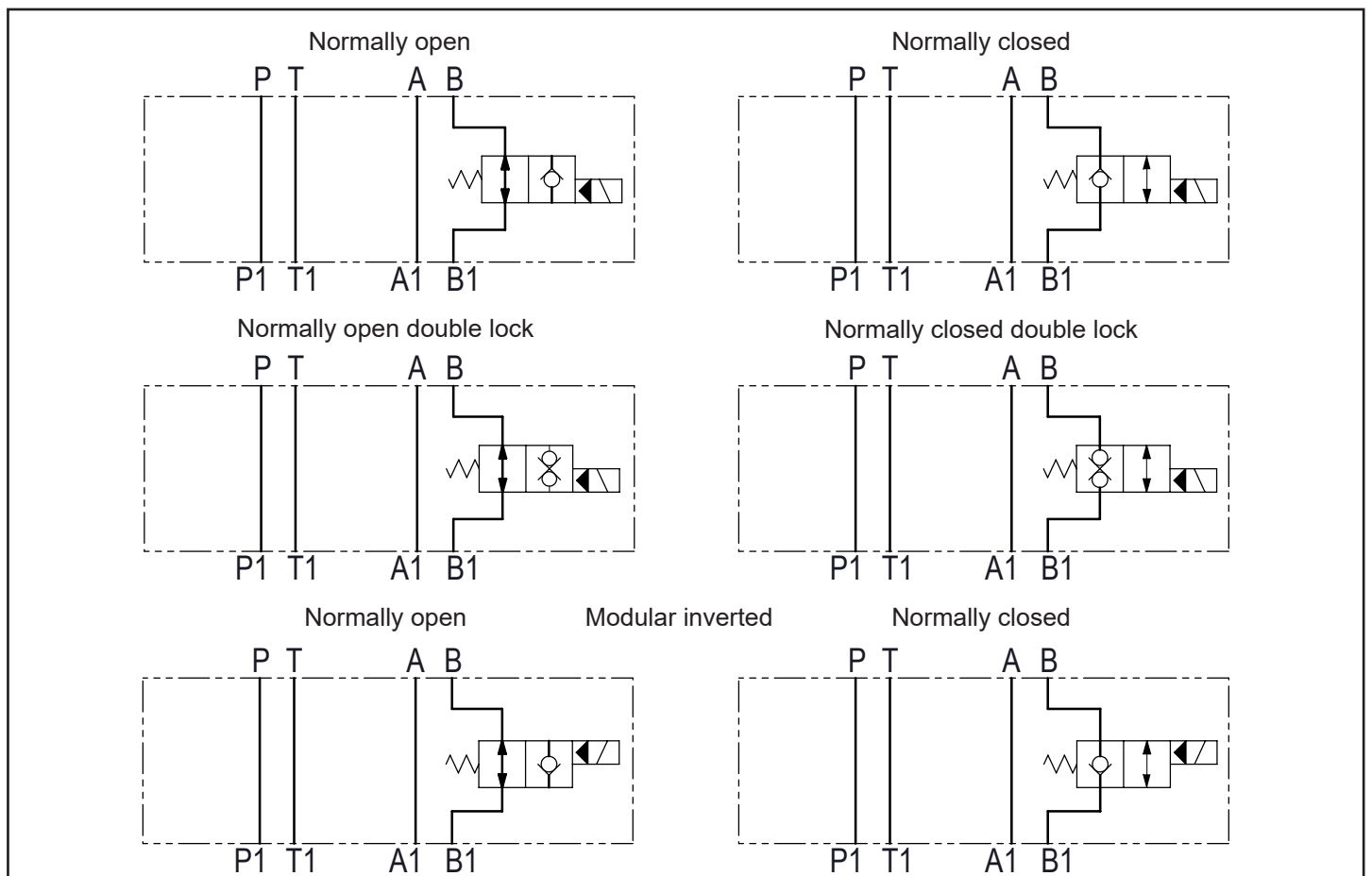
Solenoid valve coil voltage *

- OB = 12V DC
- OC = 24V DC
- OD = 48V DC
- OU = 110V RAC
- AH = 230V RAC

Solenoid valve manual override *

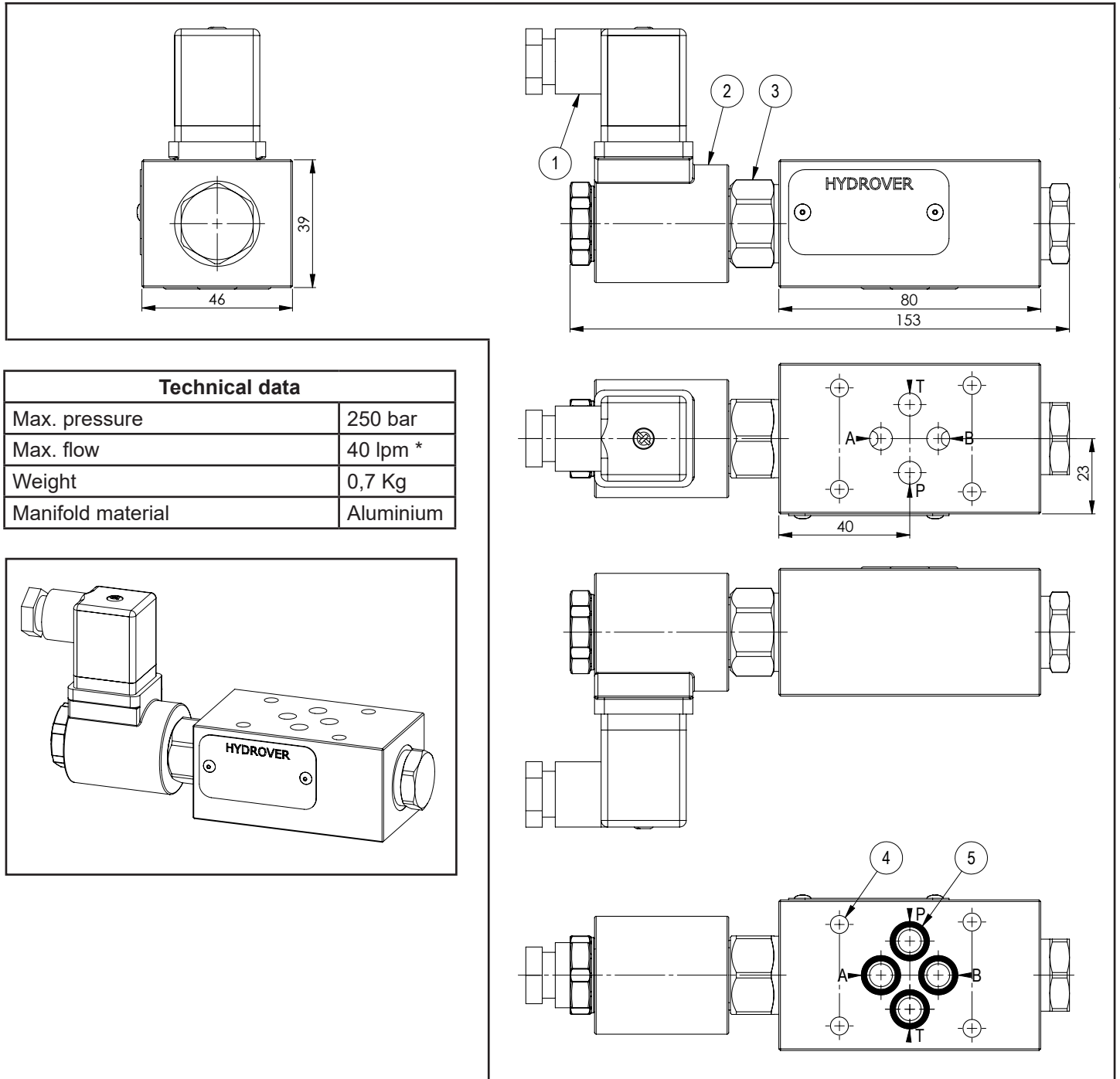
- E0 = Without
- EP = Push (NA, 2A)
- EV = Screw (NC, 2C)
- EG = Push and twist (NA, 2A)

* Omit if not required. For example, to order the product without coil, omit the solenoid valve coil connection and coil voltage options: H3966A-NC-E0.



Cetop 3 modular poppet type solenoid operated directional valve
between A and B / Float

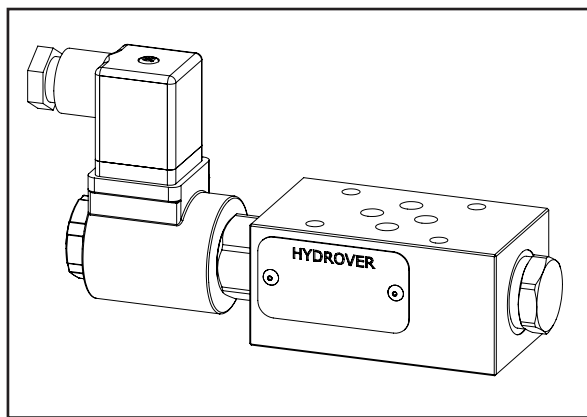
H3980



Dimensions in mm

Technical data

Max. pressure	250 bar
Max. flow	40 lpm *
Weight	0,7 Kg
Manifold material	Aluminium



N°	Description	Q.ty
1	Connector DIN 43650 ISO 4400	1
2	Bosch Rexroth coil D36 - CLASS H DIN 43650 ISO 4400 *	1
3	Bosch Rexroth solenoid valve VEI-16-08A-NC OD.15-31-18-Y-000000 (normally closed) or VEI-16-08A-NA OD.15-32-18-Y-000000 (normally open) depicted without manual override *	1
4	Ø 5,5 through hole for mounting	4
5	OR 108 i. Ø 8,73 cross section 1,78	1

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue

Ordering code

H 3 9 8 0 A - - - - -

Hydrover product

Product series

39 series - Cetop 3 modular valves

Product ID

Manifold material

Aluminium

Solenoid valve spool type *

Normally open double lock

= 2A

Normally closed double lock

= 2C

Solenoid valve coil connection *

1 = DIN 43650 ISO 4400

Solenoid valve coil voltage *

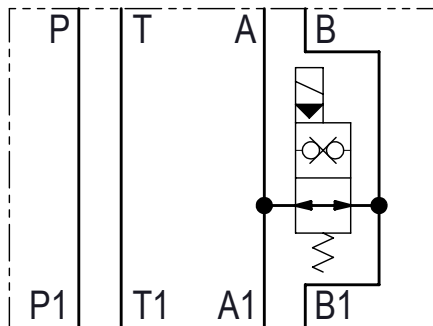
OB = 12V DC
 OC = 24V DC
 OD = 48V DC
 OU = 110V RAC
 AH = 230V RAC

Solenoid valve manual override *

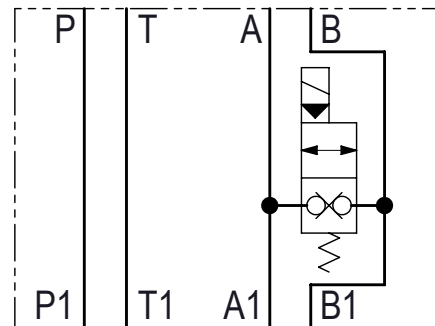
E0 = Without
 EP = Push (2A)
 EV = Screw (2C)
 EG = Push and twist (2A)

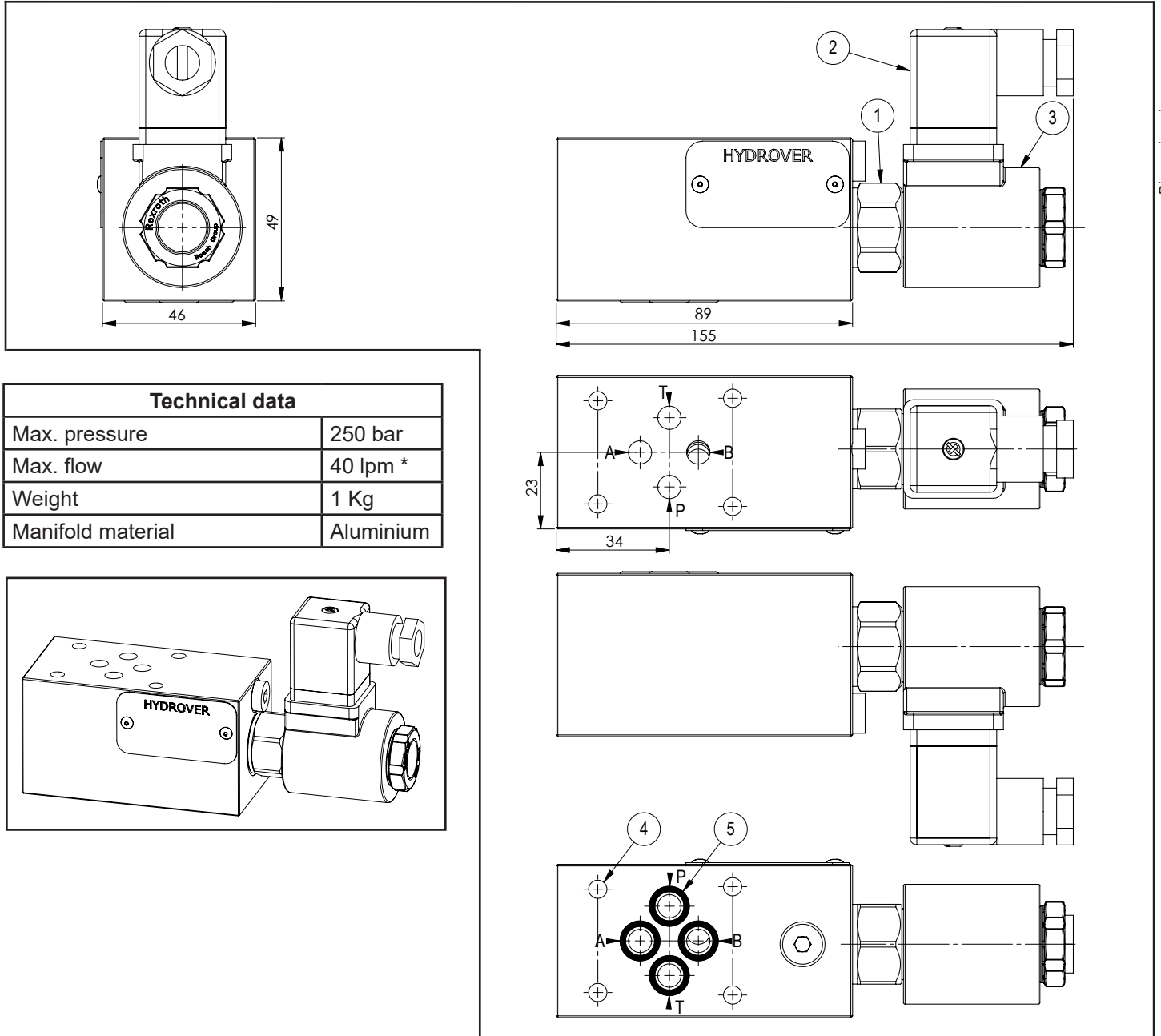
* Omit if not required. For example, to order the product without coil, omit the solenoid valve coil connection and coil voltage options: H3980A-2C-E0.

Normally open double lock



Normally closed double lock

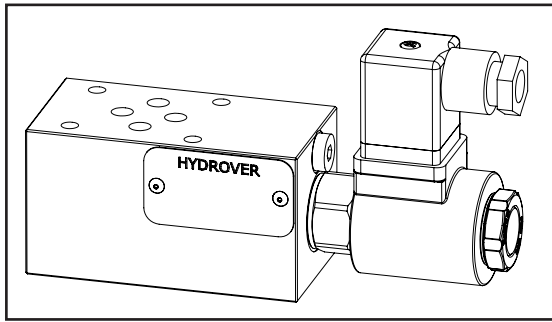




Dimensions in mm

Technical data

Max. pressure	250 bar
Max. flow	40 lpm *
Weight	1 Kg
Manifold material	Aluminium



N°	Description	Q.ty
1	Bosch Rexroth solenoid valve VEI-16-08A-NC OD.15-X-18-Y-000000 (normally closed) or VEI-16-08A-NA OD.15-X-18-Y-000000 (normally open) depicted without manual override *	1
2	Connector DIN 43650 ISO 4400	1
3	Bosch Rexroth coil D36 - CLASS H DIN 43650 ISO 4400 *	1
4	Ø 5,5 through hole for mounting	4
5	OR 108 i. Ø 8,73 cross section 1,78	4

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue

Ordering code

H 3 9 9 8 A - - - - -

Hydrover product

Product series

39 series - Cetop 3 modular valves

Product ID

Manifold material

Aluminium

Solenoid valve spool type *

- Normally open = NA
- Normally closed = NC
- Normally open double lock = 2A
- Normally closed double lock = 2C

Solenoid valve coil connection *

1 = DIN 43650 ISO 4400

Solenoid valve coil voltage *

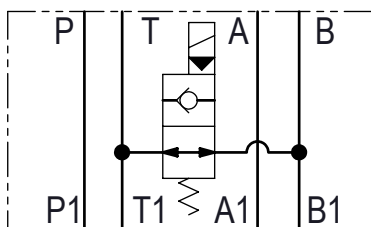
- OB = 12V DC
- OC = 24V DC
- OD = 48V DC
- OU = 110V RAC
- AH = 230V RAC

Solenoid valve manual override *

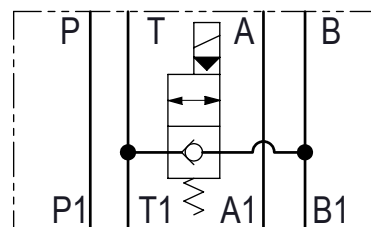
- E0 = Without
- EP = Push (NA, 2A)
- EV = Screw (NC, 2C)
- EG = Push and twist (NA, 2A)

* Omit if not required. For example, to order the product without coil, omit the solenoid valve coil connection and coil voltage options: H3998A-NC-E0.

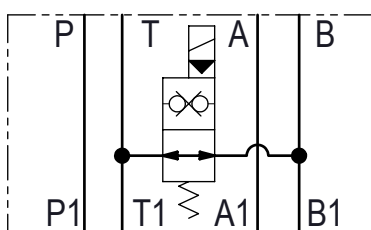
Normally open



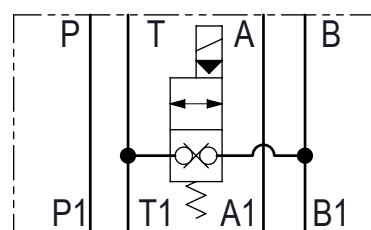
Normally closed

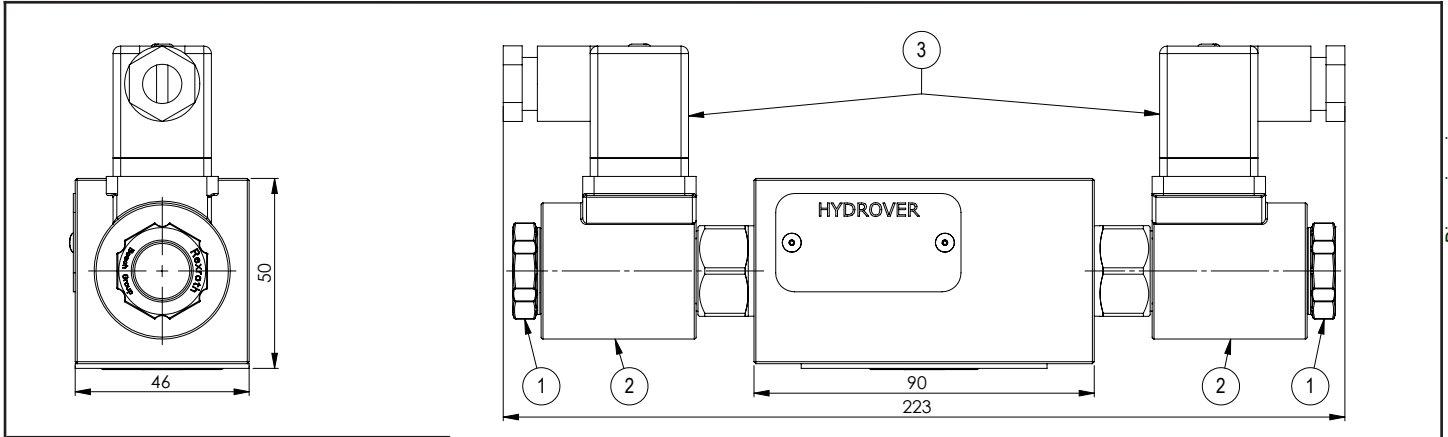


Normally open double lock



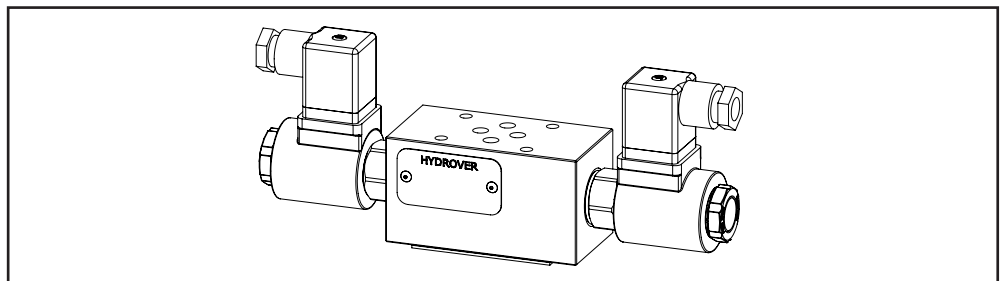
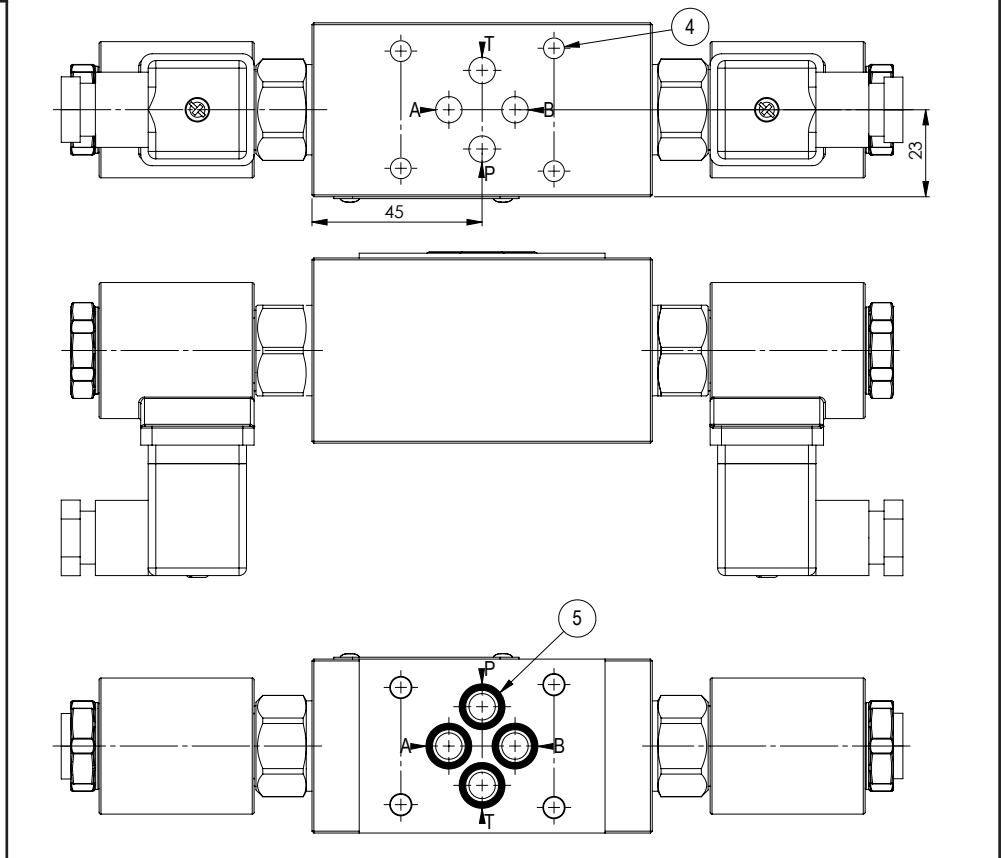
Normally closed double lock





Dimensions in mm

Technical data	
Max. flow	40 lpm *
With Aluminium manifold	
Max. pressure	250 bar
Weight	1,3 Kg
With steel manifold	
Max. pressure	350 bar
Weight	2,2 Kg



N°	Description	Q.ty
1	Bosch Rexroth solenoid valve VEI-16-08A-NC OD.15-X-18-Y-000000 (normally closed) or VEI-16-08A-NA OD.15-X-18-Y-000000 (normally open) depicted without manual override *	2
2	Bosch Rexroth coil D36 - CLASS H DIN 43650 ISO 4400 *	2
3	Connector DIN 43650 ISO 4400	2
4	Ø 5,5 through hole for mounting	4
5	Seal plate	1

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue

Ordering code

H	3	9	5	9	-	-	-	-	-	-	-
---	---	---	---	---	---	---	---	---	---	---	---

Hydrover product

Product series

39 series - Cetop 3 modular valves

Product ID

Manifold material

Aluminium = A

Steel = S

Solenoid valves spool type *

Normally open = NA

Normally closed = NC

Normally open double lock = 2A

Normally closed double lock = 2C

Solenoid valves coil connection *

1 = DIN 43650 ISO 4400

Solenoid valves coil voltage *

OB = 12V DC

OC = 24V DC

OD = 48V DC

OU = 110V RAC

AH = 230V RAC

Solenoid valves manual override *

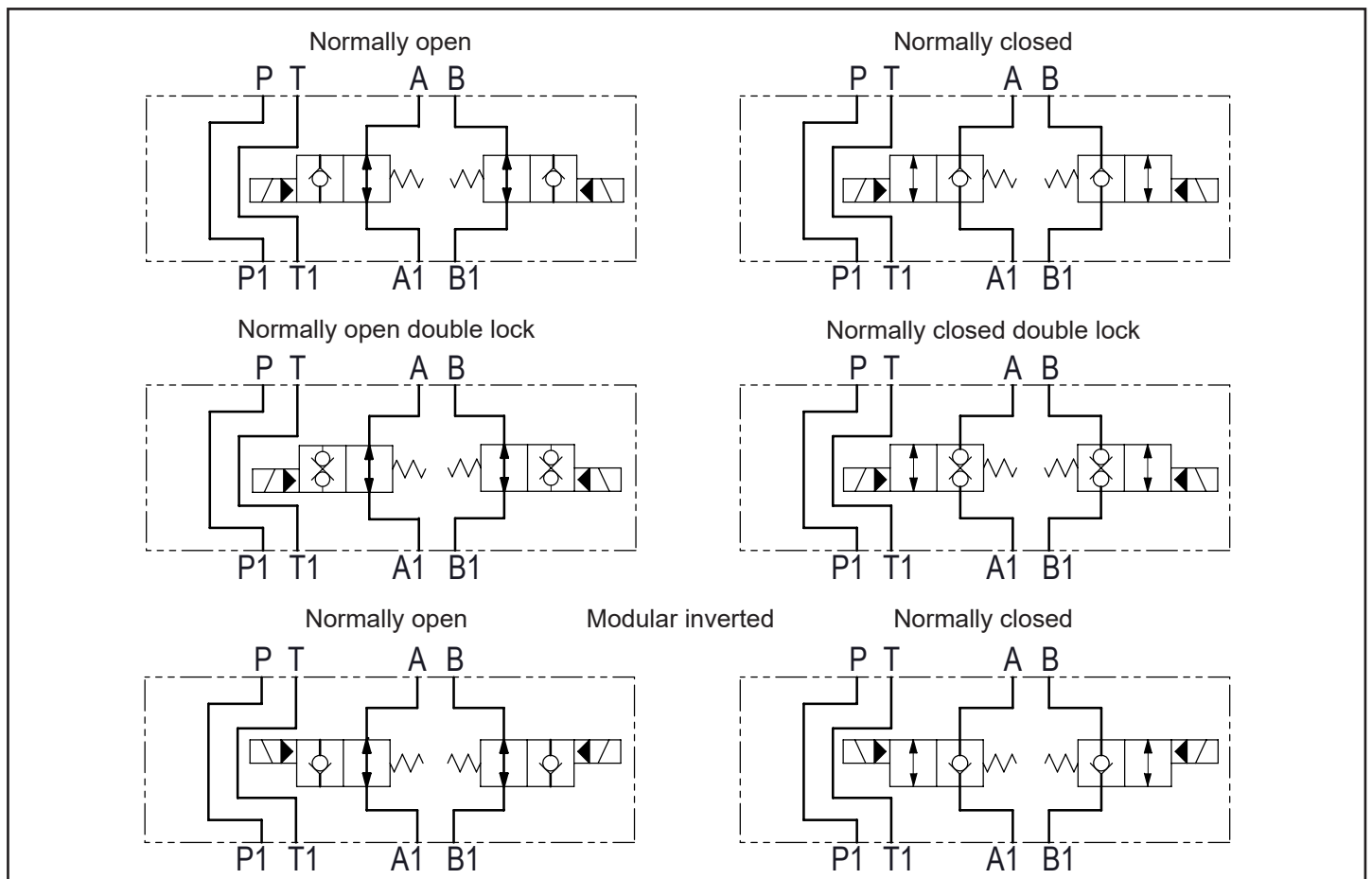
E0 = Without

EP = Push (NA, 2A)

EV = Screw (NC, 2C)

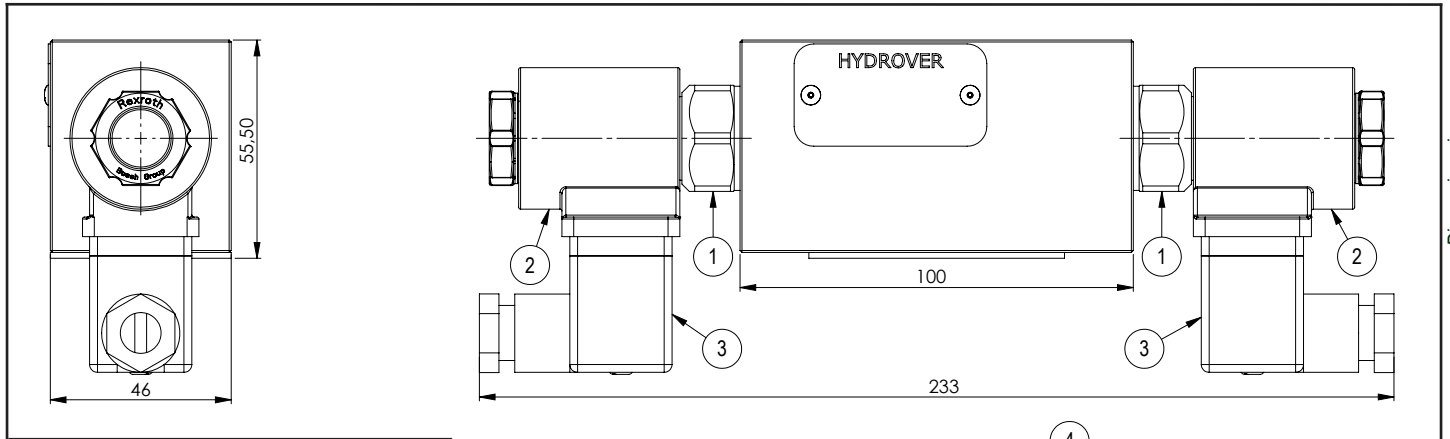
EG = Push and twist (NA, 2A)

* Omit if not required. For example, to order the product without coils, omit the solenoid valves coil connection and coil voltage options: H3959A-NC-E0.



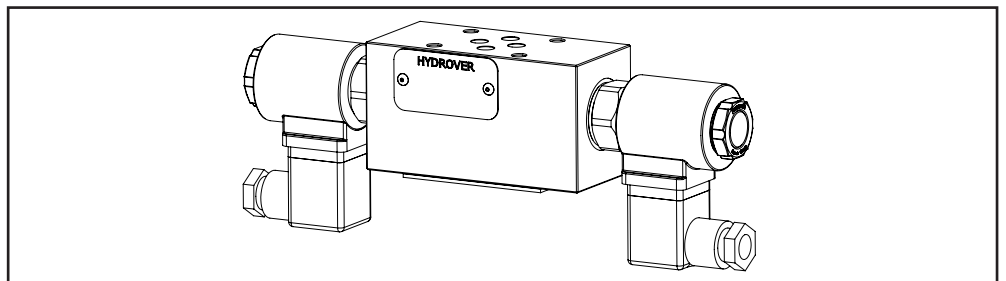
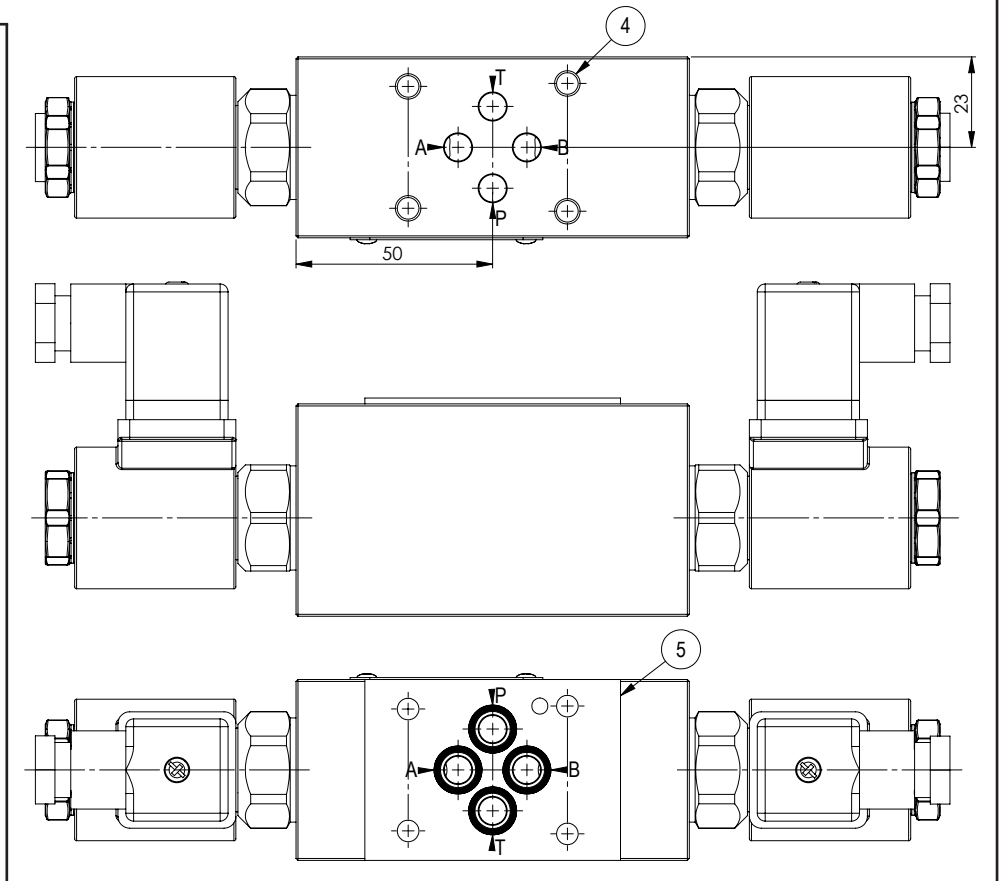
Cetop 3 modular poppet type solenoid operated directional valves
between A1 and A / B1 and B / 60 lpm

H3972



Dimensions in mm

Technical data	
Max. flow	60 lpm *
With Aluminium manifold	
Max. pressure	250 bar
Weight	1,2 Kg
With steel manifold	
Max. pressure	350 bar
Weight	2,4 Kg



N°	Description	Q.ty
1	Bosch Rexroth solenoid valve VEI-16-10A-NC OD.15-X-36-Y-000000 (normally closed) or VEI-16-10A-NA OD.15-X-36-Y-000000 (normally open) *	2
2	Bosch Rexroth coil D36 - CLASS H DIN 43650 ISO 4400 *	2
3	Connector DIN 43650 ISO 4400	2
4	Ø 5,5 through hole for mounting	4
5	Seal plate	1

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue

Ordering code



Hydrover product

Product series

39 series - Cetop 3 modular valves

Product ID

Manifold material

Aluminium

= A

Steel

= S

Solenoid valves spool type *

Normally open

= NA

Normally closed

= NC

Normally open double lock

= 2A

Normally closed double lock

= 2C

Solenoid valves coil connection *

1 = DIN 43650 ISO 4400

Solenoid valve coil voltage *

OB = 12V DC

OC = 24V DC

OD = 48V DC

OU = 110V RAC

AH = 230V RAC

Solenoid valves manual override *

Without

E0 =

EP =

Push (NA, 2A)

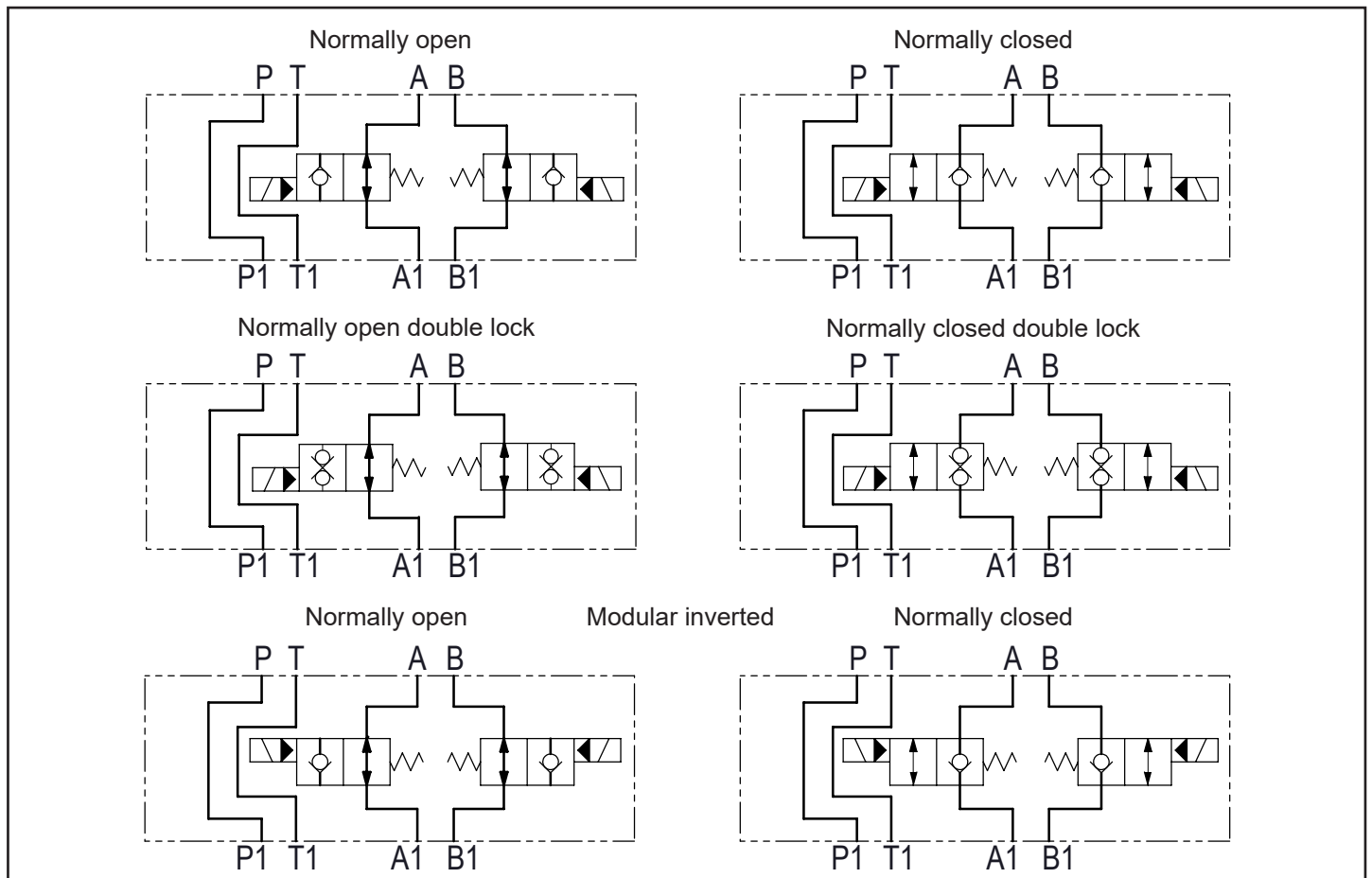
EV =

Screw (NC, 2C)

EG =

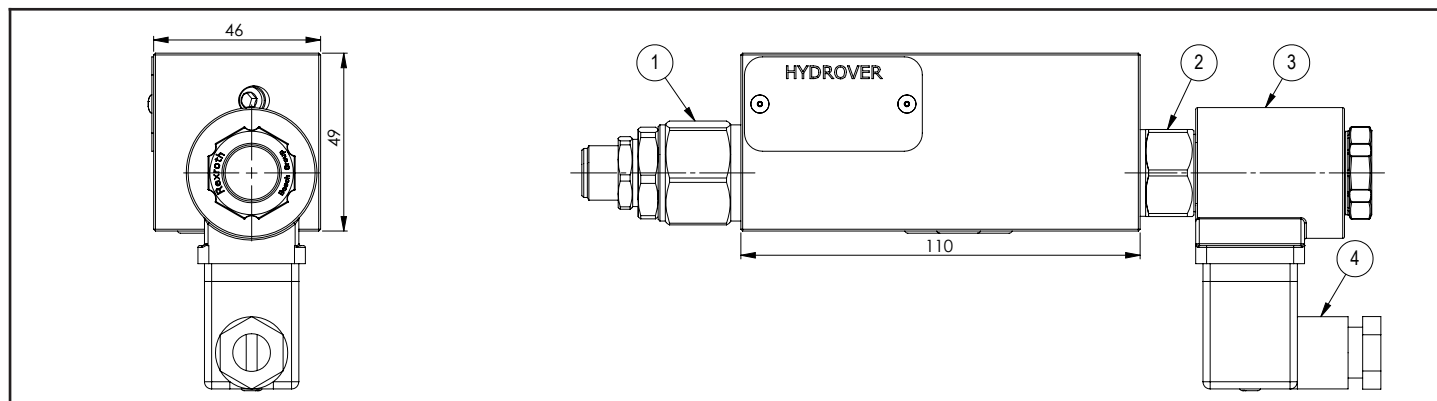
Push and twist (NA, 2A)

* Omit if not required. For example, to order the product without coils, omit the solenoid valves coil connection and coil voltage options: H3972A-NC-E0.

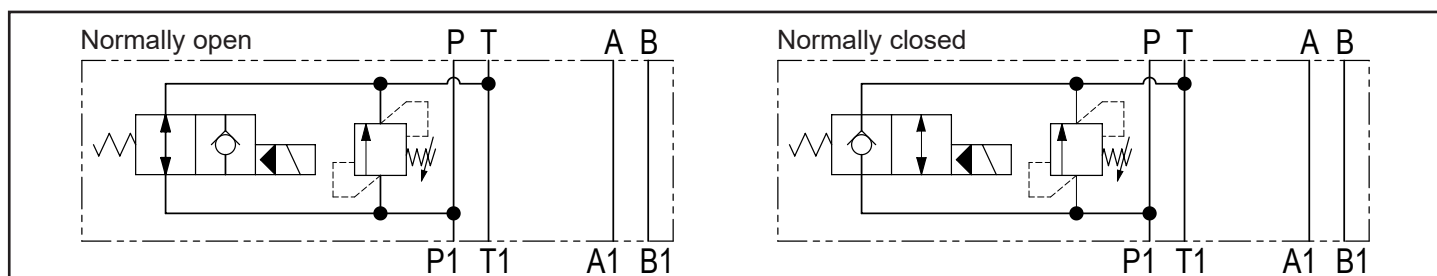
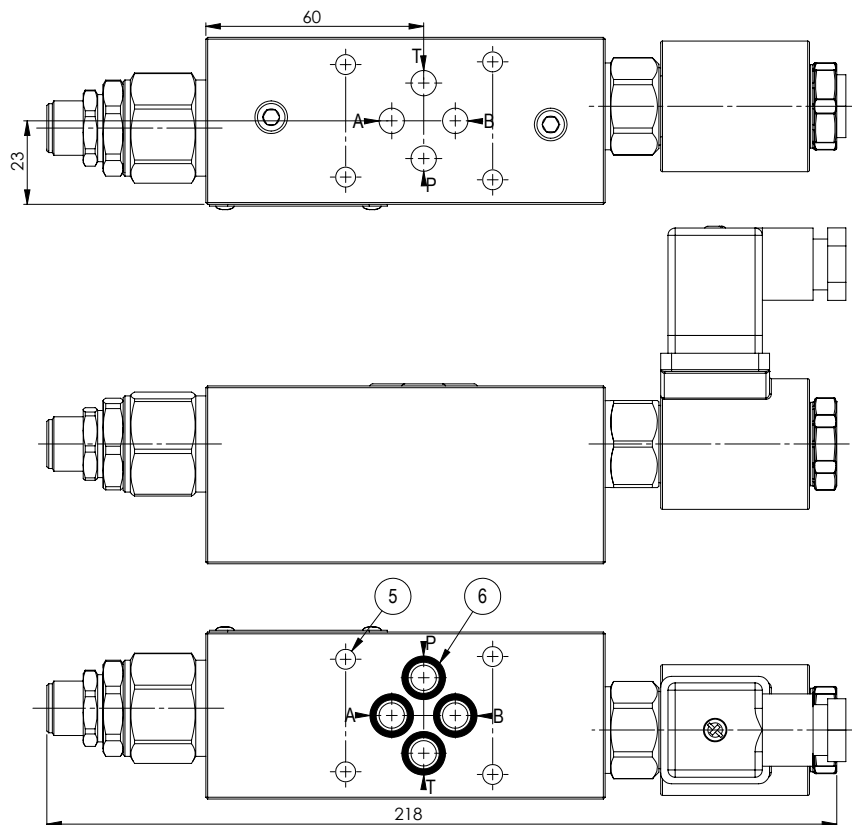
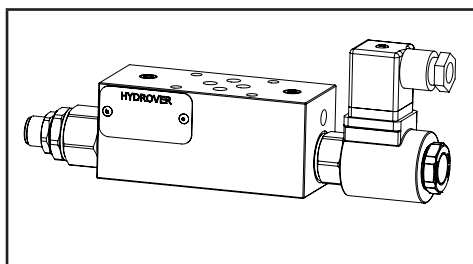


Cetop 3 modular bypass and relief valve / 35 lpm **H3933**

Dimensions in mm



Technical data	
Max. pressure	250 bar
Max. flow	35 lpm *
Weight	1,2 Kg
Manifold material	Aluminium



N°	Description	Q.ty
1	Bosch Rexroth solenoid valve VEI-16-08A-NC OD.15.05.18-Y-000000 (normally closed) or VEI-16-08A-NA OD.15.06.18-Y-000000 (normally open) depicted without manual override *	1
2	Bosch Rexroth coil D36 - CLASS H DIN 43650 ISO 4400 *	1
3	Bosch Rexroth relief valve VMD1.040 *	1
4	Connector DIN 43650 ISO 4400	1
5	Ø 5,5 through hole for mounting	4
6	OR 108 i. Ø 8,73 cross section 1,78	4

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue

H3933

Ordering code

H 3 9 3 3 A - - - - - - - - - -

Hydrover product

Product series
39 series - Cetop 3 modular valves

Product ID

Manifold material
Aluminium

Relief valve adjustment type *
Screw = S

Relief valve pressure range *
25-120 bar = 1
40-200 bar = 2
200-350 bar = 3

Solenoid valve coil connection *
1 = DIN 43650
ISO 4400

Solenoid valve coil voltage *
OB = 12V DC
OC = 24V DC
OD = 48V DC
OU = 110V RAC
AH = 230V RAC

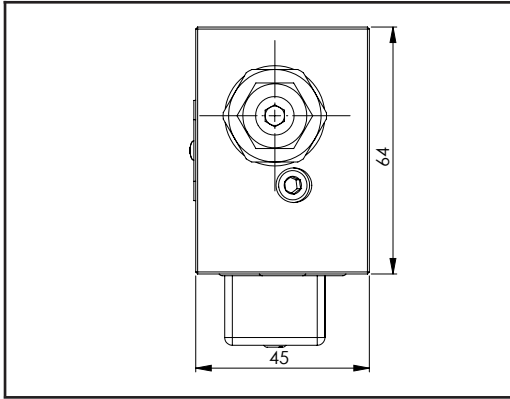
Solenoid valve manual override *
E0 = Without
EP = Push (NA)
EV = Screw (NC)
EG = Push and twist (NA)

Solenoid valve spool type *
NA = Normally open
NC = Normally closed

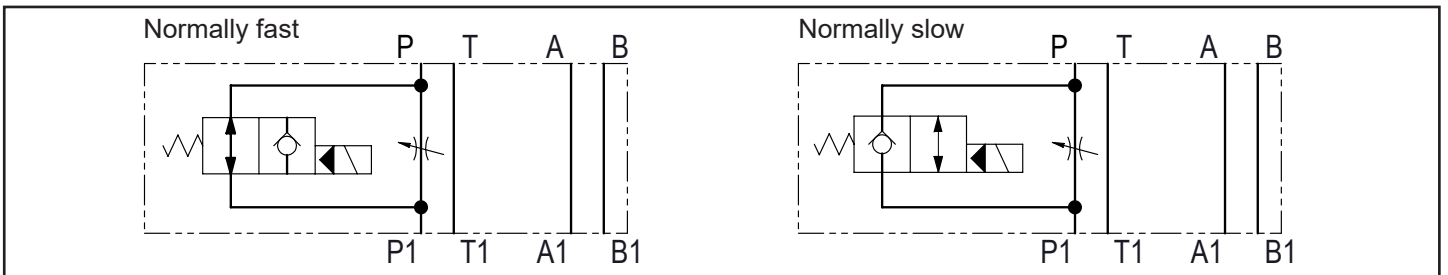
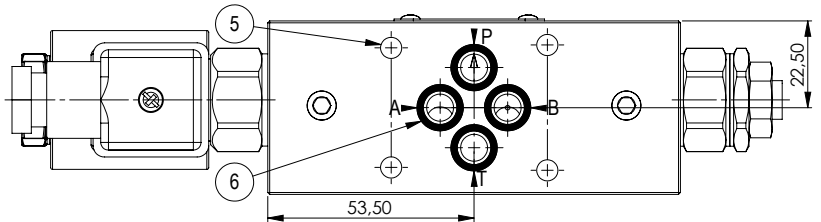
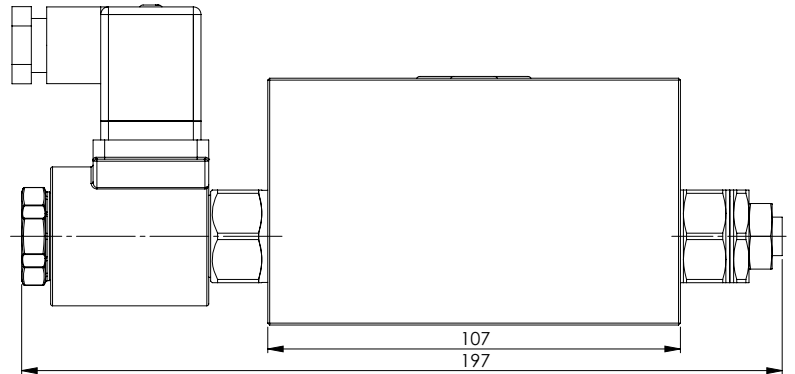
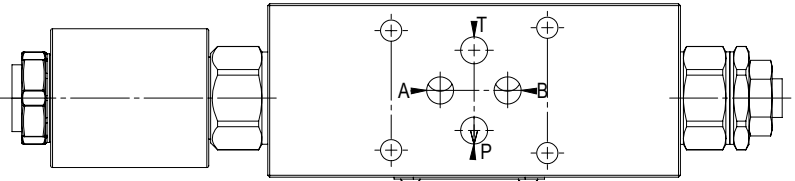
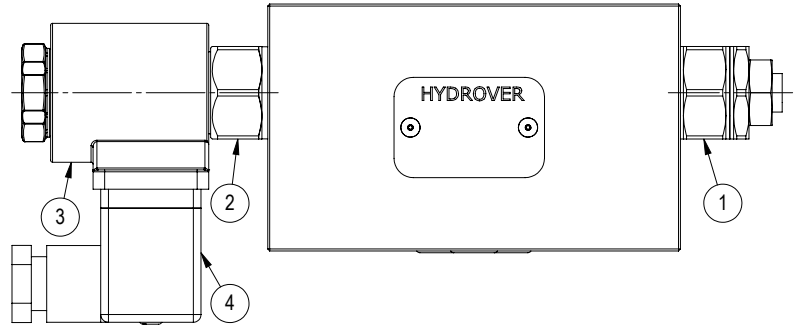
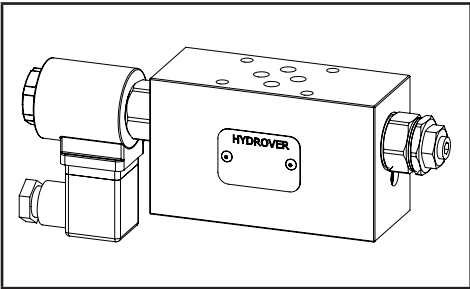
* Omit if not required. For example, to order the product without the relief cartridge valve, omit the relief valve adjustment type and pressure range options: H3933A-E0-OC1.
The manifold will still be provided with the corresponding cavity.
To inhibit a function, replace the related valve options with TL: eg H3933A-TL-E0-OC1.
In the cavity it will be mounted a long plug.

Valve	Cavity	Long plug code
Solenoid valve VEI-16-8A OD.15.05.18-Y-000000 or VEI-16-8A OD.15.06.18-Y-000000	CA-08A-2N	0489A2005600000
Pressure relief valve VMD1.040	CA-10A-2N	0489A2008500000

Dimensions in mm



Technical data	
Max. pressure	250 bar
Max. flow	35 lpm *
Weight	1,2 Kg
Manifold material	Aluminium



N°	Description	Q.ty
1	Bosch Rexroth bidirectional flow restrictor OD.21.01-X-56 * depicted with screw adjustment	1
2	Bosch Rexroth solenoid valve VEI-16-08A-NC OD.15.05.18-Y-000000 (normally slow) or VEI-16-08A-NA OD.15.06.18-Y-000000 (normally fast) depicted without manual override *	1
3	Bosch Rexroth coil D36 - CLASS H DIN 43650 ISO 4400 *	1
4	Connector DIN 43650 ISO 4400	1
5	Ø 5,5 through hole for mounting	4
6	OR 108 i. Ø 8,73 cross section 1,78	4

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue



Ordering code

H 3 9 1 0 4 A - _ Q - _ _ - _ _ - _ _

Hydrover product

Product series

39 series - Cetop 3 modular valves

Product ID

Manifold material

Aluminium

Restrictor adjustment type

Screw = S
Knob = K

Slow or fast in normal position *

Normally slow = NL
Normally fast = NR

Solenoid valve coil connection *

1 = DIN 43650
ISO 4400

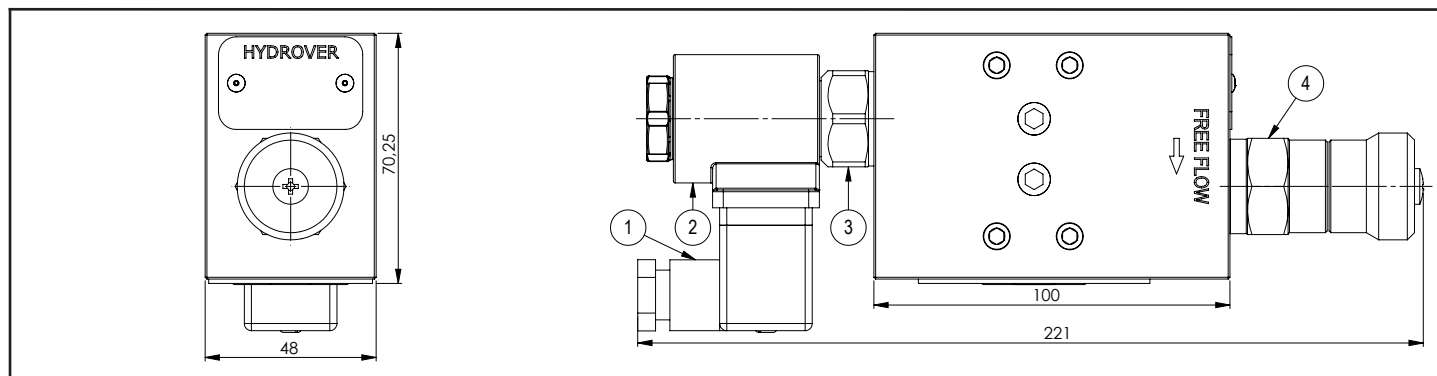
Solenoid valve coil voltage *

OB = 12V DC
OC = 24V DC
OD = 48V DC
OU = 110V RAC
AH = 230V RAC

Solenoid valve manual override *

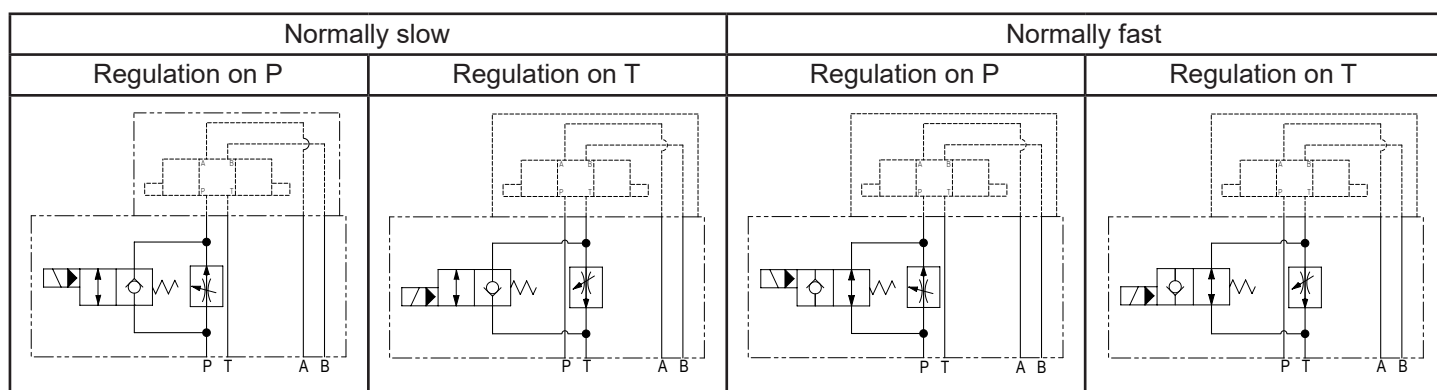
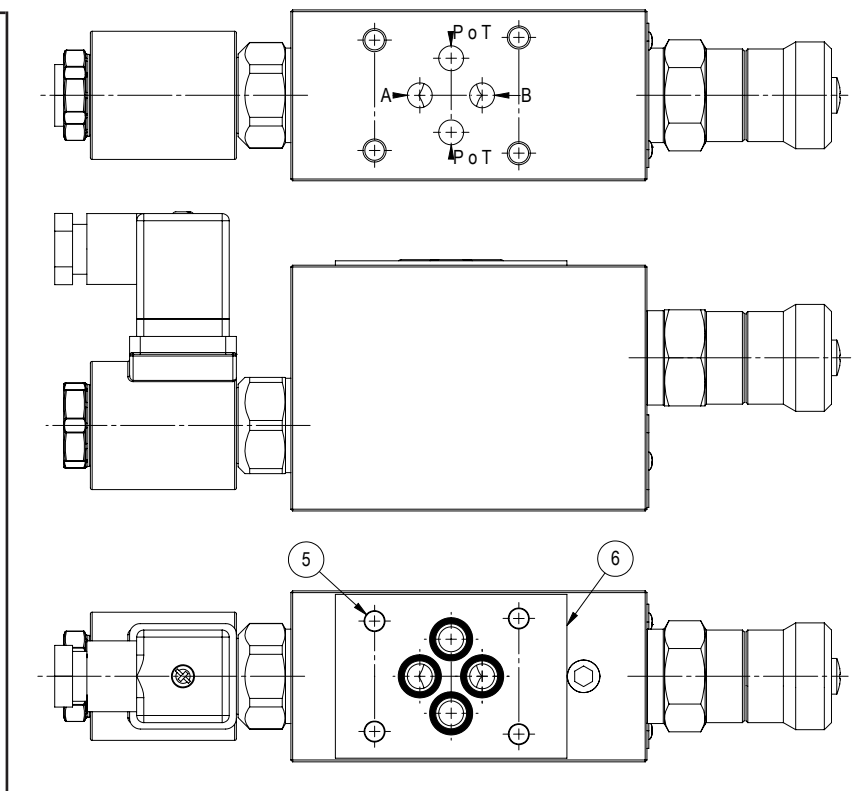
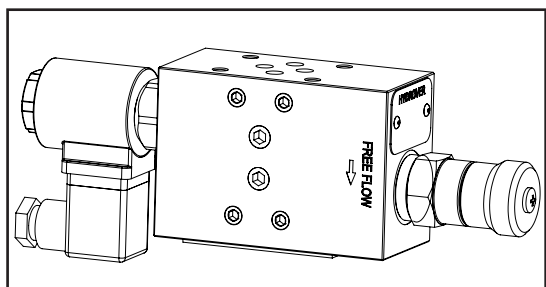
E0 = Without
EP = Push (NR)
EV = Screw (NL)
EG = Push and twist (NR)

* Omit if not required. For example, to order the product without the relief cartridge valve, omit the relief valve adjustment type and pressure range options: H39104A-SQ.
The manifold will still be provided with the corresponding cavity.



Dimensions in mm

Technical data	
Max. pressure	250 bar
Max. flow	50 lpm *
Regulated max. flow	30 lpm *
Weight	1,5 Kg
Manifold material	Aluminium



N°	Description	Q.ty
1	Connector DIN 43650 ISO 4400	1
2	Bosch Rexroth coil D36 - CLASS H DIN 43650 ISO 4400 *	1
3	Bosch Rexroth solenoid valve for fast slow function OD.15.05.36-Y-000000 (normally slow) or OD.15.06.36-Y-000000 (normally fast) depicted without manual override *	1
4	Bosch Rexroth 2 way compensated flow regulator 04.02.02.40.85-Z *	1
5	Ø 5,5 through hole for mounting	4
6	Seal plate	1

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue

Ordering code

H 3 9 3 1 A - C _ - _ - _ - _ - _

Hydrover product

Product series

39 series - Cetop 3 modular valves

Product ID

Manifold material

Aluminium

Flow regulator adjustment type

Calibrated knob

Flow regulator range

0,1 - 20 lpm = 2
0,2 - 30 lpm = 3

Slow or fast in normal position *

Normally slow = NL
Normally fast = NR

Solenoid valve coil connection *

1 = DIN 43650
ISO 4400

Solenoid valve coil voltage *

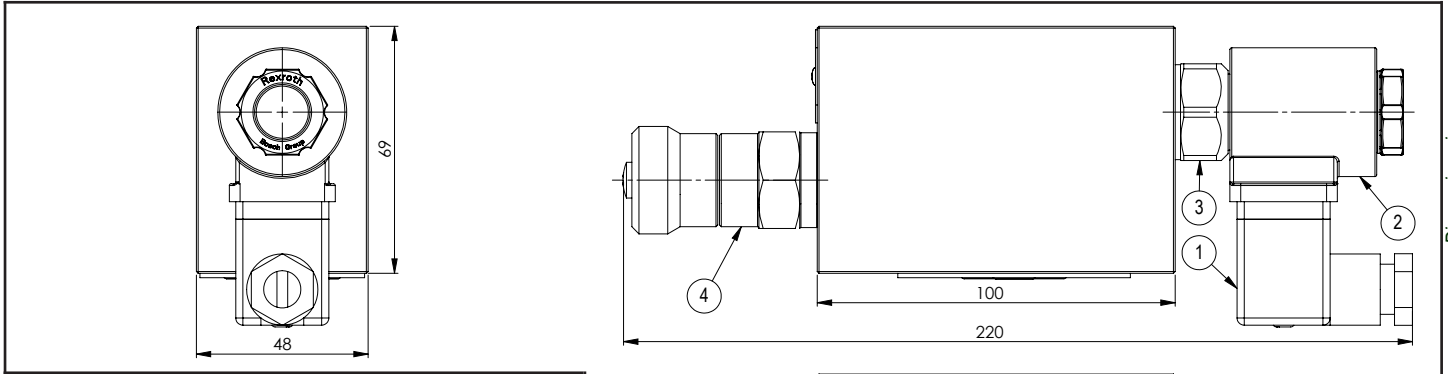
OB = 12V DC
OC = 24V DC
OD = 48V DC
OU = 110V RAC
AH = 230V RAC

Solenoid valve manual override *

E0 = Without
EP = Push (NR)
EV = Screw (NL)
EG = Push and twist (NR)

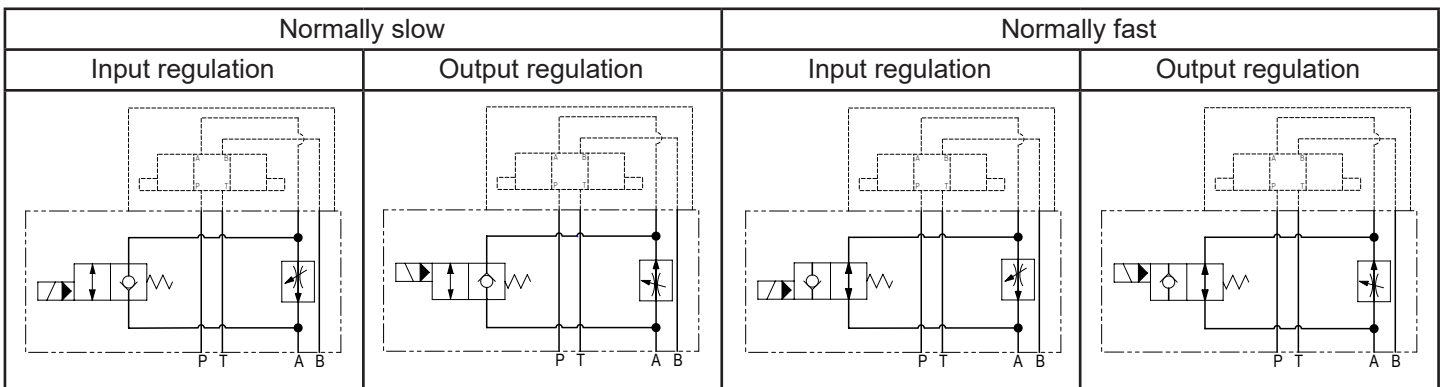
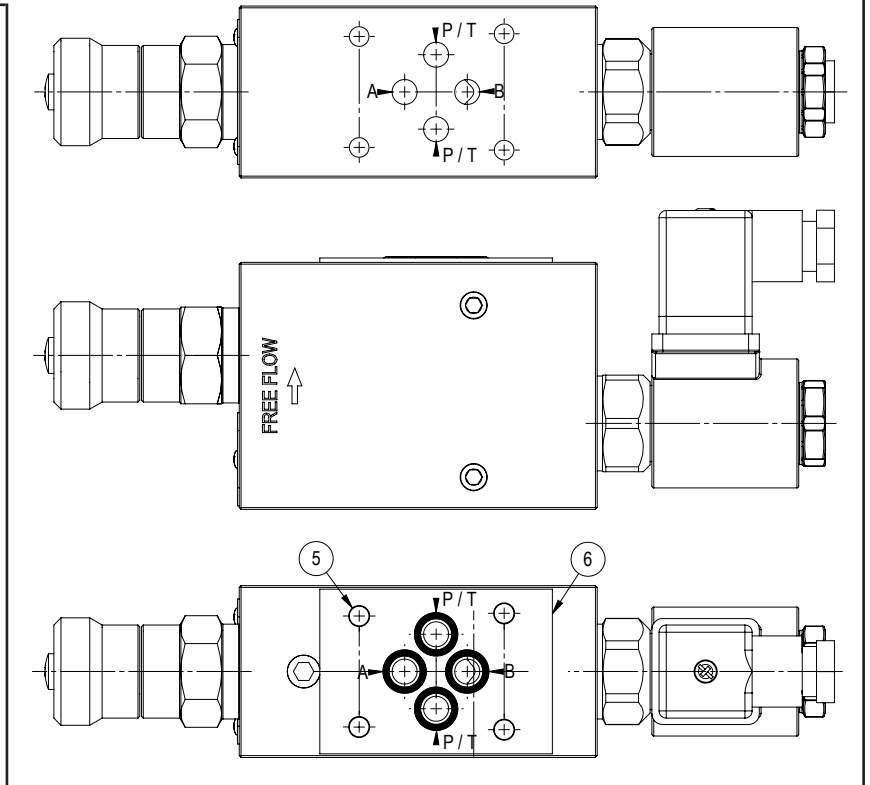
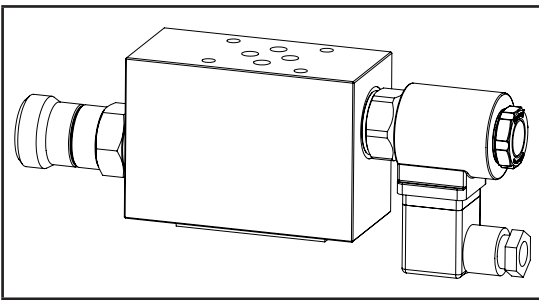
* Omit if not required. To order the product without the fast slow solenoid cartridge valve, omit the slow fast in normal position, manual override, coil voltage and coil connection options: H3931A-C2.
The manifold will still be provided with the corresponding cavity.
To inhibit the fast slow speed function, replace the related solenoid valve options with TL: eg H3931A-C2-TL.
In the cavity it will be mounted a long plug.

Valve	Cavity	Long plug code
Solenoid valve OD.15.05.36-Y-000000 or OD.15.06.36-Y-000000	CA-10A-2N	0489A200850000



Dimensions in mm

Technical data	
Max. pressure	250 bar
Max. flow	50 lpm *
Regulated max. flow	30 lpm *
Weight	1,5 Kg
Manifold material	Aluminium



N°	Description	Q.ty
1	Connector DIN 43650 ISO 4400	1
2	Bosch Rexroth coil D36 - CLASS H DIN 43650 ISO 4400 *	1
3	Bosch Rexroth solenoid valve for fast slow function OD.15.05.36-Y-000000 (normally slow) or OD.15.06.36-Y-000000 (normally fast) depicted without manual override *	1
4	Bosch Rexroth 2 way compensated flow regulator 04.02.02.40.85-Z *	1
5	Ø 5,5 through hole for mounting	4
6	Seal plate	1

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue

Ordering code

H 3 9 6 0 A - C _ - _ - _ - _ - _ - _

Hydrover product

Product series

39 series - Cetop 3 modular valves

Product ID

Manifold material

Aluminium

Flow regulator adjustment type

Calibrated knob

Flow regulator range

0,1 - 20 lpm

= 2

0,2 - 30 lpm

= 3

Slow or fast in normal position *

Normally slow

= NL

Normally fast

= NR

Solenoid valve coil connection *

1 = DIN 43650
ISO 4400

Solenoid valve coil voltage *

OB = 12V DC
OC = 24V DC
OD = 48V DC
OU = 110V RAC
AH = 230V RAC

Solenoid valve manual override *

E0 = Without
EP = Push (NR)
EV = Screw (NL)
EG = Push and twist (NR)

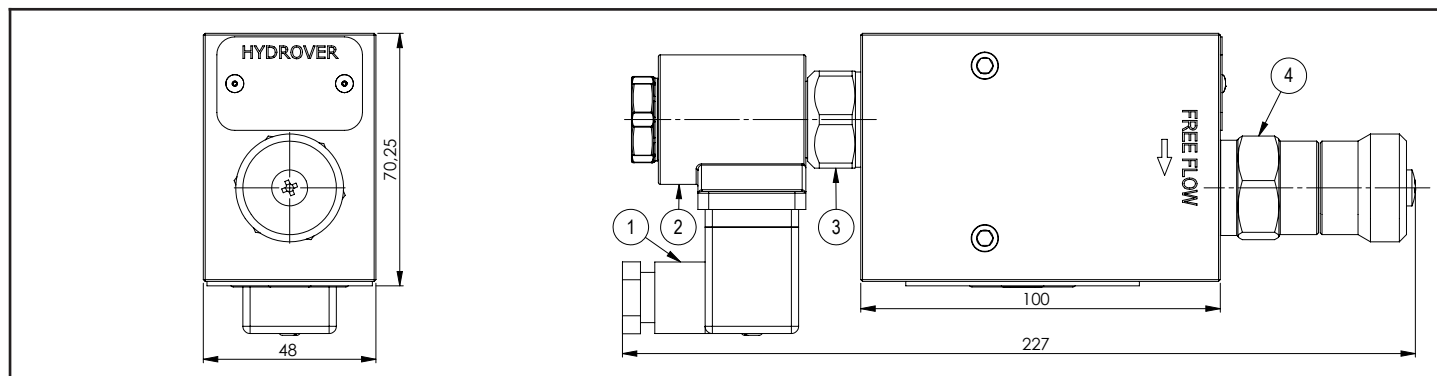
* Omit if not required. For example, to order the product without the fast slow solenoid cartridge valve, omit the solenoid valve manual override, coil voltage and coil connection options: H3960A-C2.

The manifold will still be provided with the corresponding cavity.

To inhibit the fast slow speed function, replace the related solenoid valve options with TL: eg H3960A-C2-TL.

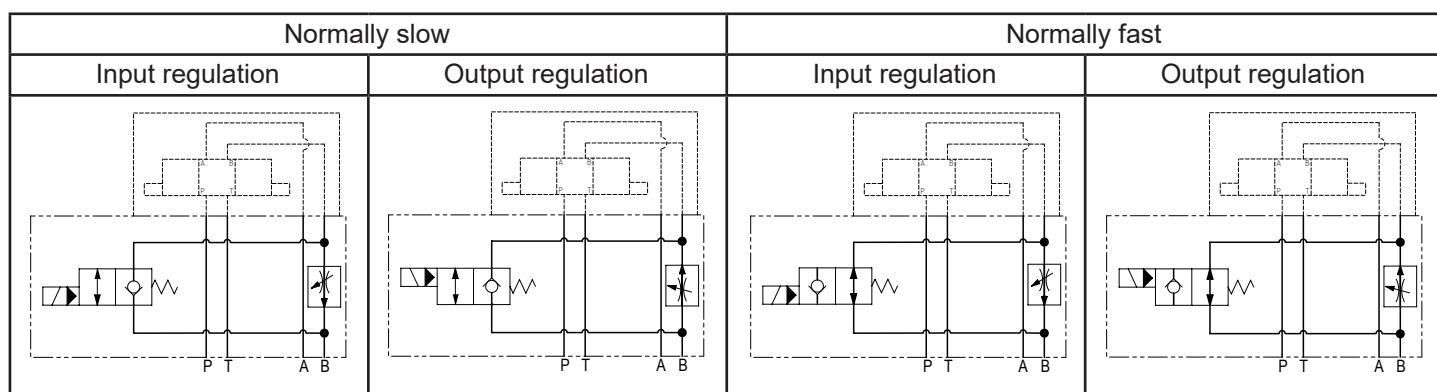
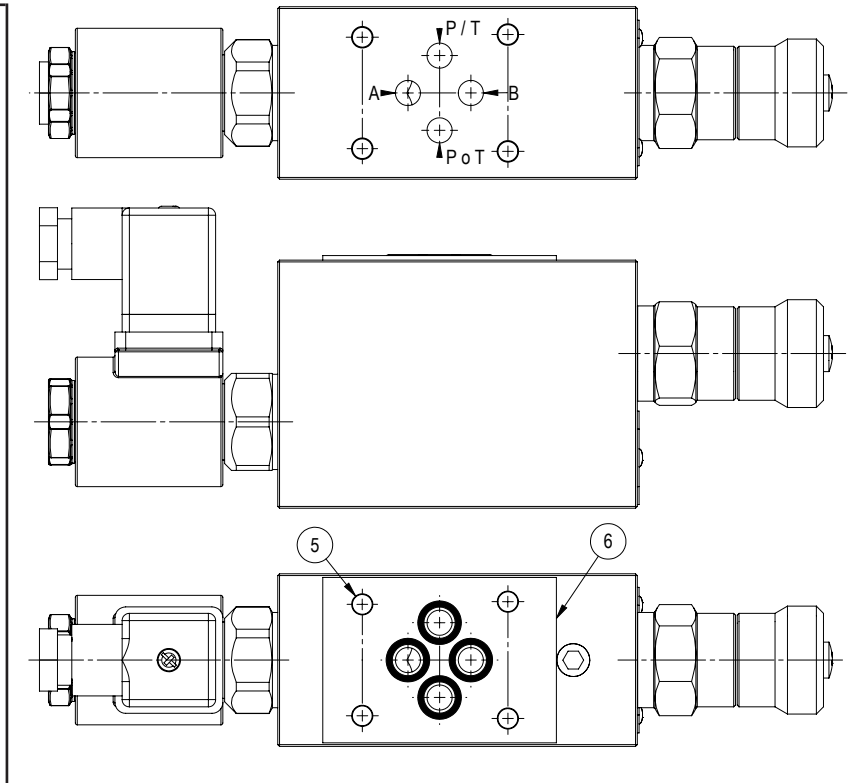
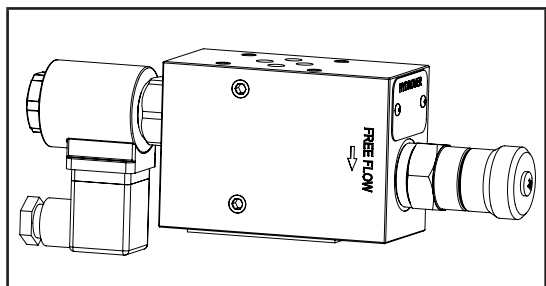
In the cavity it will be mounted a long plug.

Valve	Cavity	Long plug code
Solenoid valve OD.15.05.36-Y-000000 or OD.15.06.36-Y-000000	CA-10A-2N	0489A200850000



Dimensions in mm

Technical data	
Max. pressure	250 bar
Max. flow	50 lpm *
Regulated max. flow	30 lpm *
Weight	1,5 Kg
Manifold material	Aluminium



N°	Description	Q.ty
1	Connector DIN 43650 ISO 4400	1
2	Bosch Rexroth coil D36 - CLASS H DIN 43650 ISO 4400 *	1
3	Bosch Rexroth solenoid valve for fast slow function OD.15.05.36-Y-000000 (normally slow) or OD.15.06.36-Y-000000 (normally fast) depicted without manual override *	1
4	Bosch Rexroth 2 way compensated flow regulator 04.02.02.40.85-Z *	1
5	Ø 5,5 through hole for mounting	4
6	Seal plate	1

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue

Ordering code

H 3 9 3 2 A - C _ - _ - _ - _ - _

Hydrover product

Product series

39 series - Cetop 3 modular valves

Product ID

Manifold material

Aluminium

Flow regulator adjustment type

Calibrated knob

Flow regulator range

0,1 - 20 lpm

= 2

0,2 - 30 lpm

= 3

Slow or fast in normal position *

Normally slow

= NL

Normally fast

= NR

Solenoid valve coil connection *

1 = DIN 43650
ISO 4400

Solenoid valve coil voltage *

OB = 12V DC
OC = 24V DC
OD = 48V DC
OU = 110V RAC
AH = 230V RAC

Solenoid valve manual override *

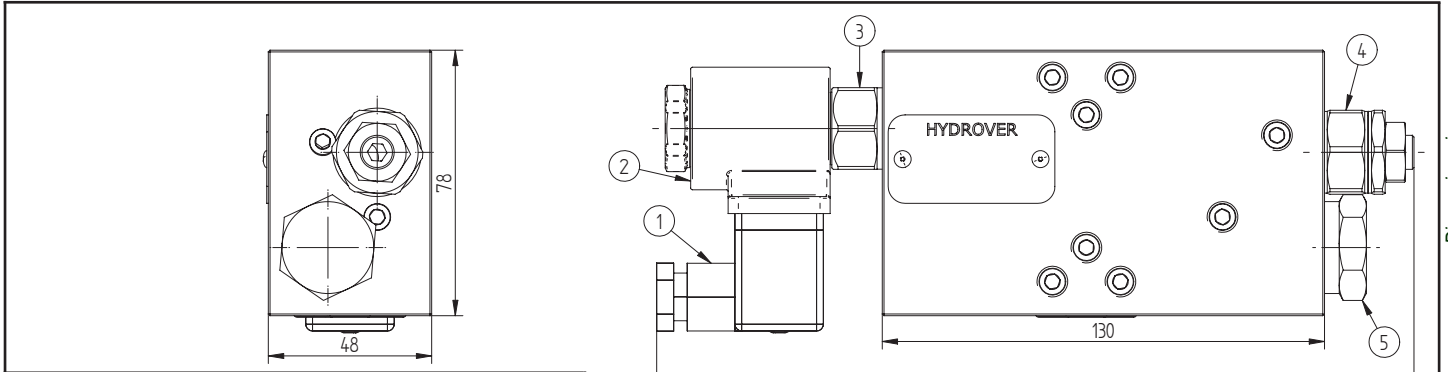
E0 = Without
EP = Push (NR)
EV = Screw (NL)
EG = Push and twist (NR)

* Omit if not required. For example, to order the product without the fast slow solenoid cartridge valve, omit the solenoid valve manual override, coil voltage and coil connection options: H3932A-C2.
The manifold will still be provided with the corresponding cavity.
To inhibit the fast slow speed function, replace the related solenoid valve options with TL: eg H3932A-C2-TL.
In the cavity it will be mounted a long plug.

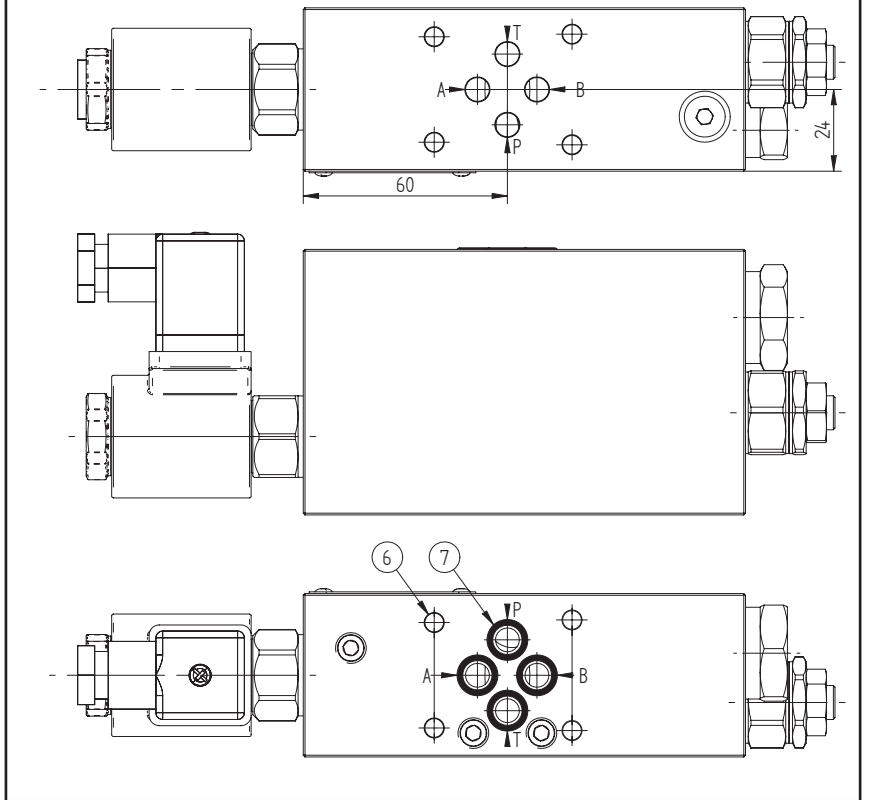
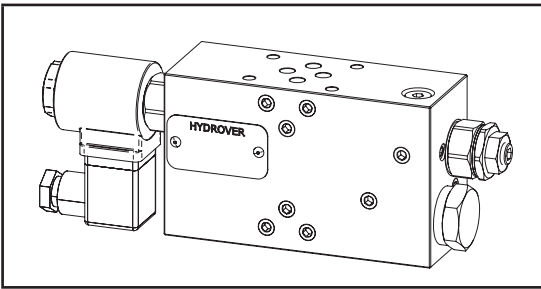
Valve	Cavity	Long plug code
Solenoid valve OD.15.05.36-Y-000000 or OD.15.06.36-Y-000000	CA-10A-2N	0489A200850000

Modular Cetop 3 3 way compensated flow regulator valve on P with fast slow speed

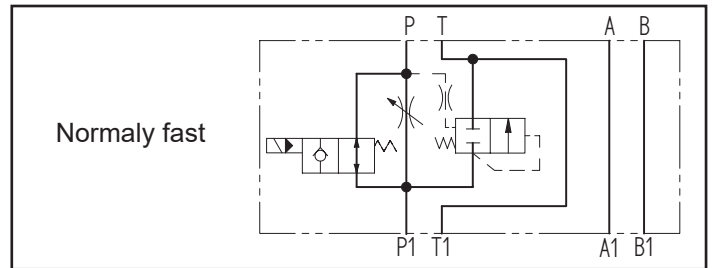
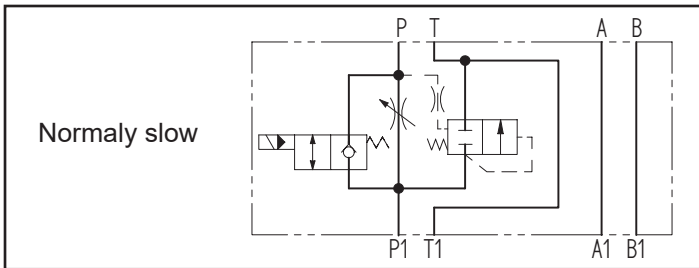
H3927



Technical data	
Max. pressure	210 bar
Max. flow	35 lpm
Weight	1,8 Kg
Manifold material	Aluminium



Dimensions in mm



N°	Description	Q.ty
1	Connector DIN 43650 ISO 4400	1
2	Bosch Rexroth coil D36 - CLASS H DIN 43650 ISO 4400 *	1
3	Bosch Rexroth solenoid valve for fast slow function VEI-16-08A-NC OD.15.05.18-Y-000000 (normally slow) or VEI-16-08A-NA OD.15.06.18-Y-000000 (normally fast) depicted without manual override *	1
4	Bosch Rexroth bidirectional flow restrictor OD.21.01-X-56 * depicted with screw adjustment	1
5	Pressure compensator	1
6	Ø 5,5 through hole for mounting	4
7	OR 108 i. Ø 8,73 cross section 1,78	4

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue

Ordering code

H 3 9 2 7 A _ _ Q - _ _ - _ _ - _ _

Hydrover product

Product series

39 series - Cetop 3 modular valves

Product ID

Manifold material

Aluminium

Compensator spring

6 bar (standard) = 6
12 bar = 1

Flow regulator adjustment type

Screw = S
Knob = K

Slow or fast in normal position *

Normally slow = NL
Normally fast = NR

Solenoid valve coil connection *

1 = DIN 43650
ISO 4400

Solenoid valve coil voltage *

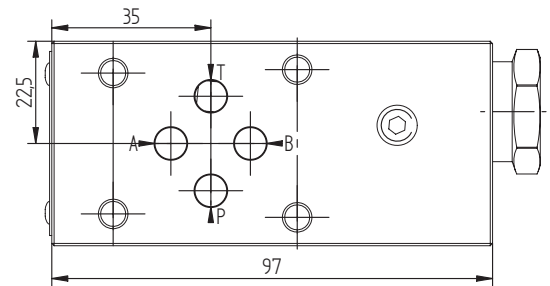
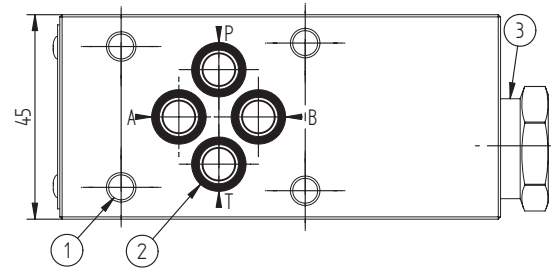
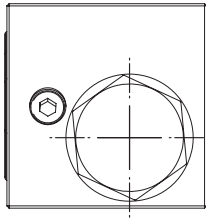
OB = 12V DC
OC = 24V DC
OD = 48V DC
OU = 110V RAC
AH = 230V RAC

Solenoid valve manual override *

E0 = Without
EP = Push (NR)
EV = Screw (NL)
EG = Push and twist (NR)

* Omit if not required. For example, to order the product without the fast slow solenoid cartridge valve, omit the solenoid valve manual override, coil voltage and coil connection options: H3927A4SQ.
The manifold will still be provided with the corresponding cavity.
To inhibit the fast slow speed function, replace the related solenoid valve options with TL: eg H3927A4SQ-TL.
In the cavity it will be mounted a long plug.

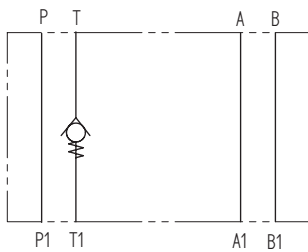
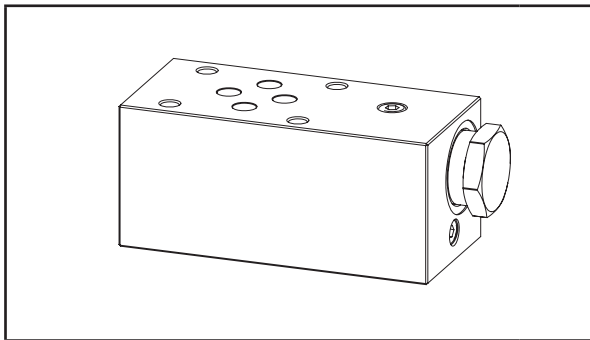
Valve	Cavity	Long plug code
Solenoid valve VEI-16-08A-NC OD.15.05.18-Y-000000 or VEI-16 08A-NA OD.15.06.18-Y-000000	CA-08A-2N	0489A2005600000



Dimensions in mm

Technical data

Max. pressure	250 bar
Max. flow	50 lpm
Weight	0,7 Kg
Manifold material	Aluminium



N°	Description	Q.ty
1	Ø 5,5 through hole for mounting	4
2	OR 108 i. Ø 8,73 cross section 1,78	4
3	Bosch Rexroth check valve	1



Ordering code

H	3	9	1	0	A
---	---	---	---	---	---

Hydrover product

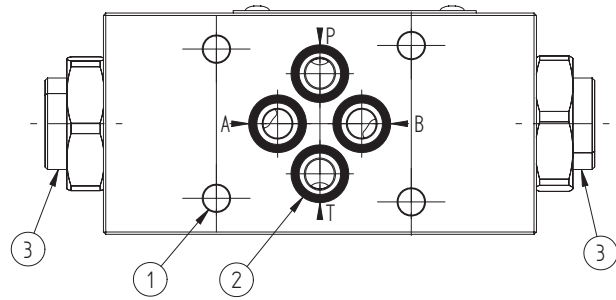
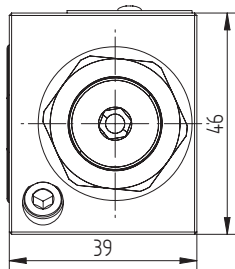
Manifold material
Aluminium

Product series

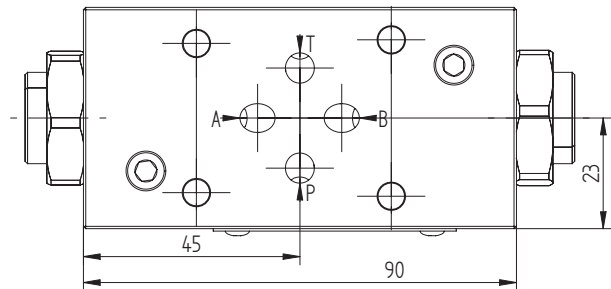
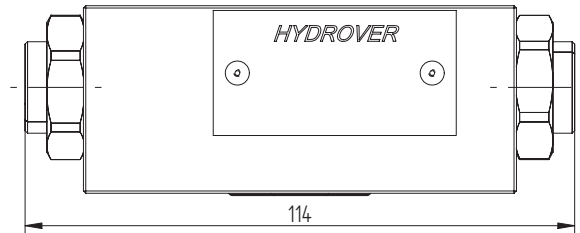
39 series - Cetop 3 modular valves

Product ID

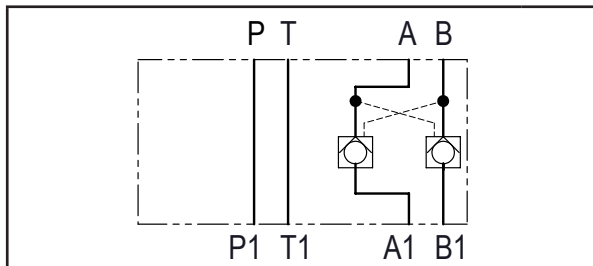
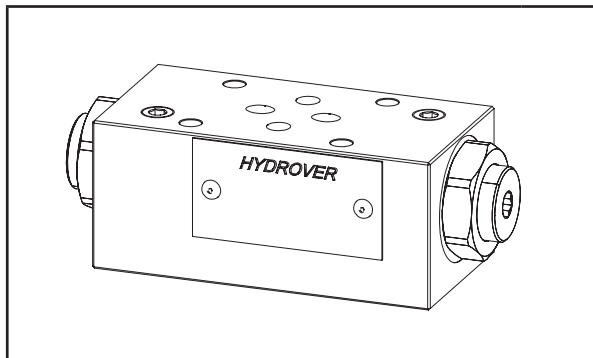
Cetop 3 modular piloted operated check valves on A e B / pilot ratio 7:1 **H3928**



Dimensions in mm



Technical data	
Max. flow	30 lpm
With Aluminium manifold	
Max. pressure	250 bar
Weight	0,6 Kg
With steel manifold	
Max. pressure	350 bar
Weight	1,2 Kg



N°	Description	Q.ty
1	Ø 5,5 through hole for mounting	4
2	OR 108 i. Ø 8,73 cross section 1,78	4
3	Bosch Rexroth check valve	2

H3928

Ordering code

H	3	9	2	8	_	_
---	---	---	---	---	---	---

Hydrover product

Product series

39 series - Cetop 3 modular valves

Product ID

Cracking pressure

3 bar

8 bar

Manifold material

Aluminium

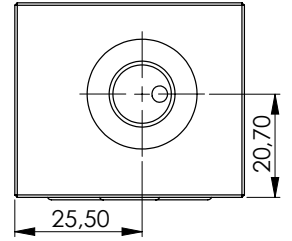
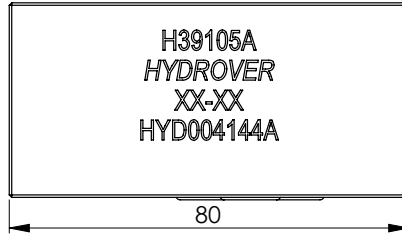
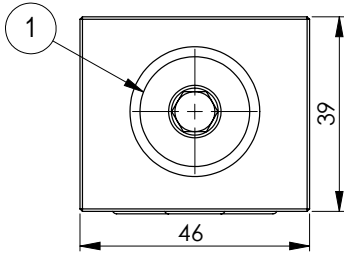
Steel

3 =

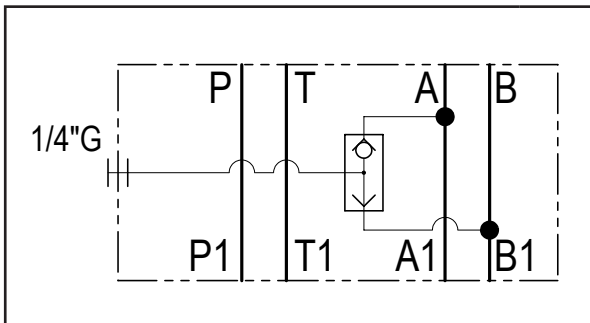
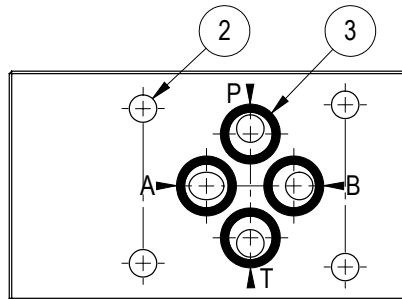
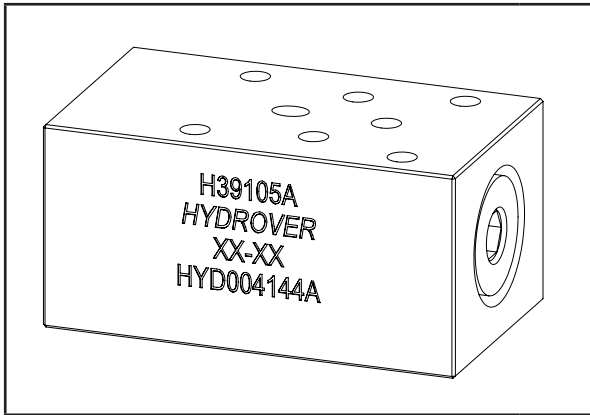
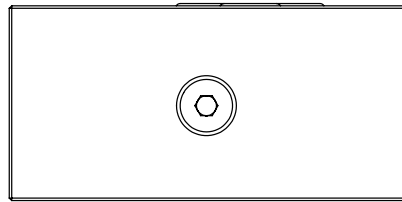
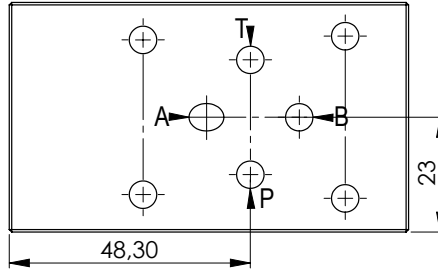
8 =

A =

S =



Technical data	
Max. flow shuttle valve	5 lpm
Max. flow A / B / P / T	40 lpm
Max. pressure	Aluminium: 250 bar
	Steel: 350 bar
Weight	Aluminium: 0,4 Kg
	Steel: 1 Kg
Manifold material	Aluminium or Steel
Shuttle valve port	1/4" G



N°	Description	Q.ty
1	Sealed shuttle valve under 3/8" G plug	1
2	Ø 5,5 through hole for mounting	4
3	OR 108 i. Ø 8,73 cross section 1,78	4



Codice d'ordinazione

H	3	9	1	0	5	_
---	---	---	---	---	---	---

Hydrover product

Product series

39 series - Cetop 3 modular valves

Manifold material

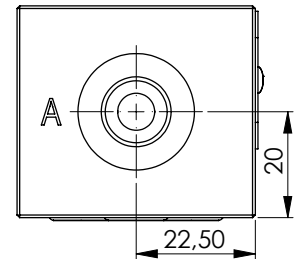
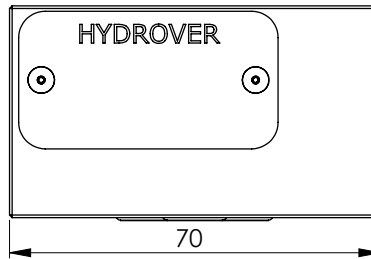
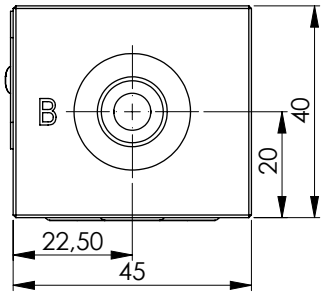
Aluminium

Steel

A =

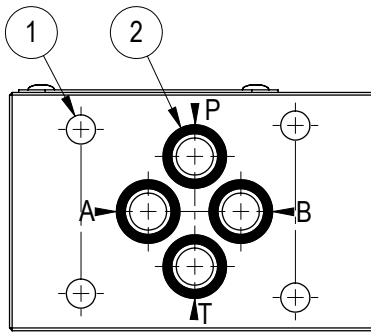
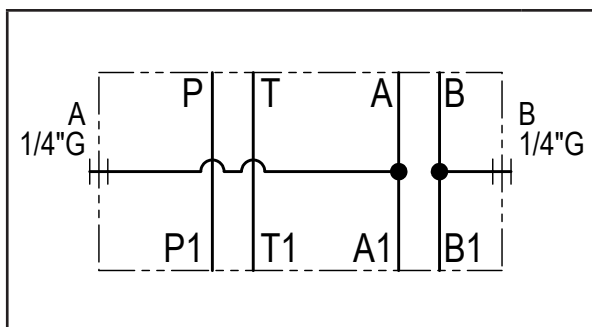
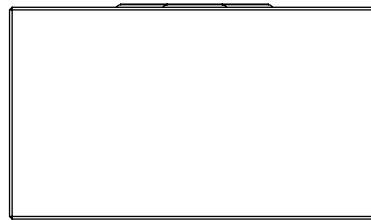
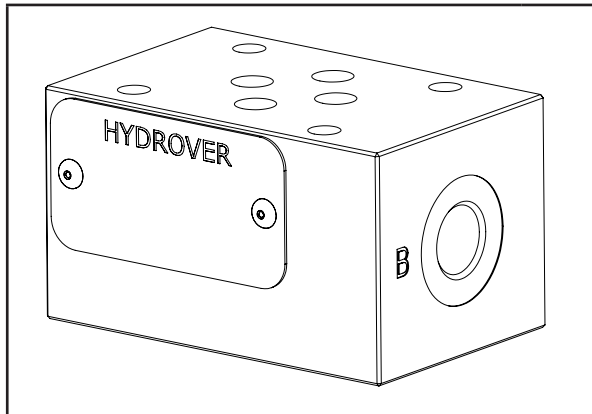
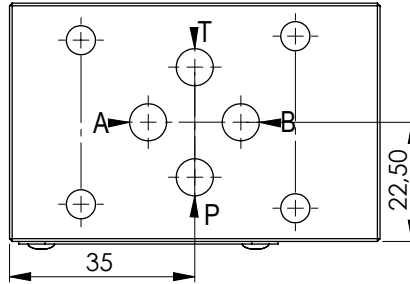
S =

Product ID



Dimensions in mm

Technical data		
Max. pressure	Aluminium:	250 bar
	Steel:	350 bar
Weight	Aluminium:	0,3 Kg
	Steel:	0,9 Kg
Manifold material	Aluminium or Steel	
A / B ports	1/4" G	



N°	Description	Q.ty
1	Ø 5,5 through hole for mounting	4
2	OR 108 i. Ø 8,73 cross section 1,78	4



Ordering code

H	3	9	7	3	_
---	---	---	---	---	---

Hydrover product

Product series

39 series - Cetop 3 modular valves

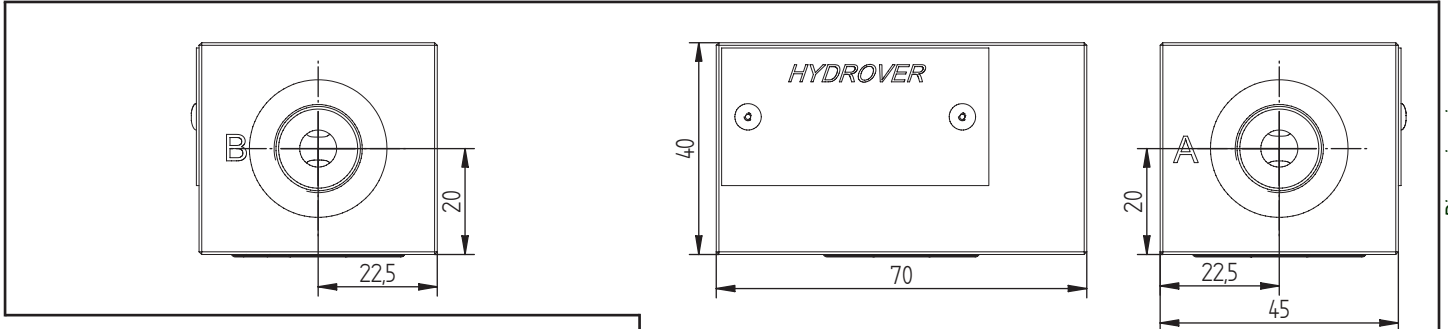
A =
S =

Manifold material

Aluminium
Steel

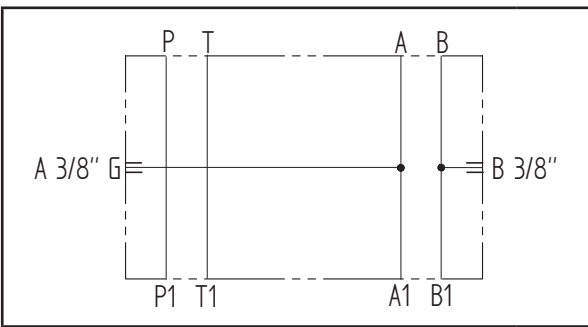
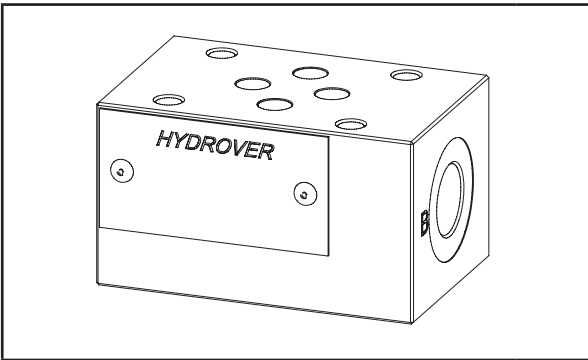
Product ID

Cetop 3 modular manifold with side additional A-B ports 3/8" G

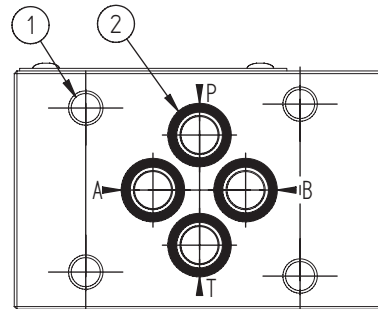
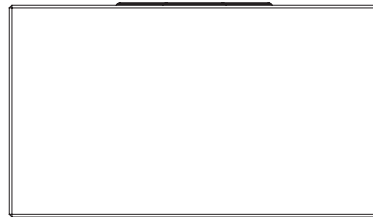
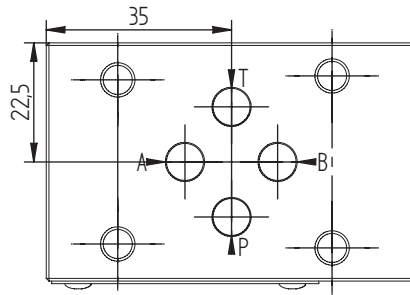


Dimensions in mm

Technical data		
Max. pressure	Aluminium:	250 bar
	Steel:	350 bar
Weight	Aluminium:	0,3 Kg
	Steel:	0,9 Kg
Manifold material	Aluminium o Steel	
A / B ports	3/8" G	



N°	Description	Q.ty
1	Ø 5,5 through hole for mounting	4
2	OR 108 i. Ø 8,73 cross section 1,78	4





Ordering code

H	3	9	1	3	_
---	---	---	---	---	---

Hydrover product

Product series

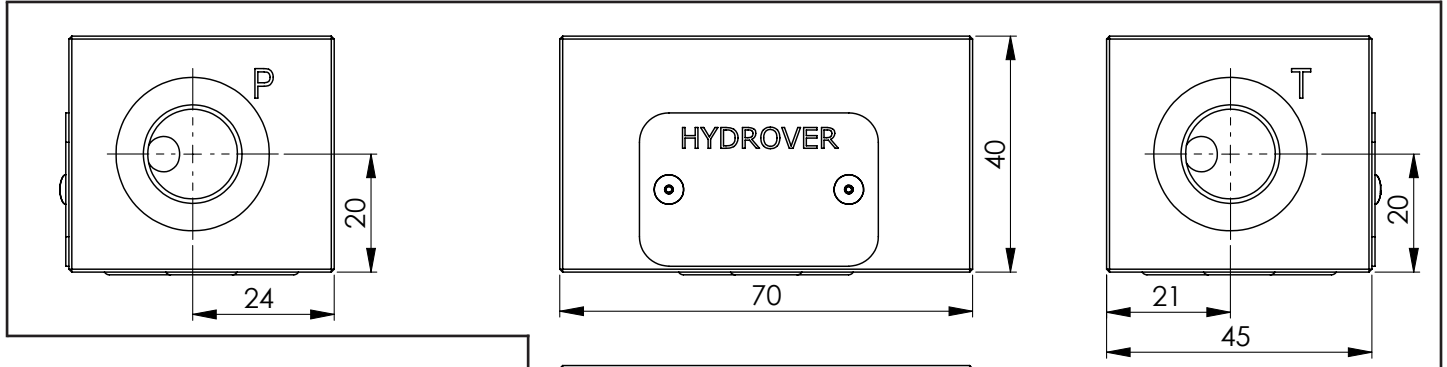
39 series - Cetop 3 modular valves

A =
S =

Manifold material

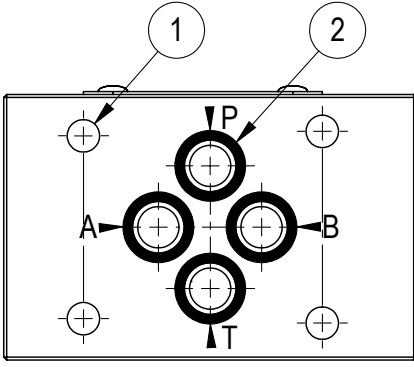
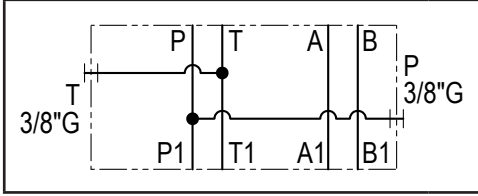
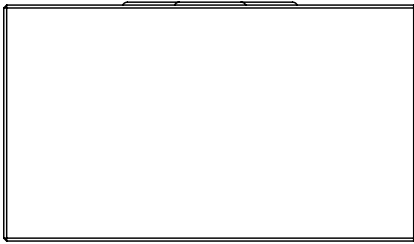
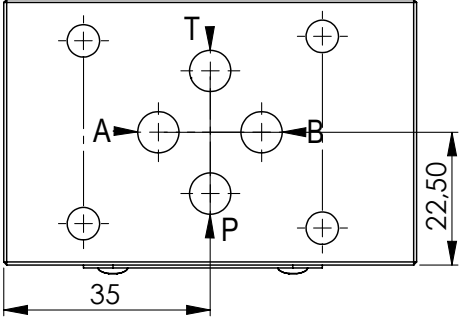
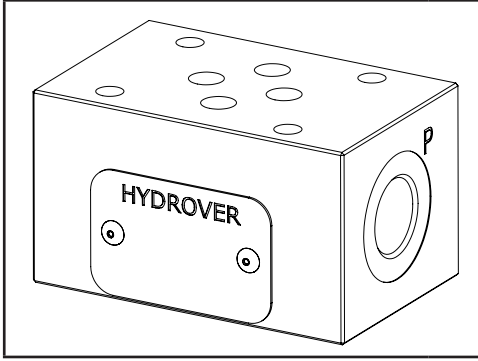
Aluminium
Steel

Product ID



Dimensions in mm

Technical data	
Max. pressure	250 bar
Weight	0,3 Kg
Manifold material	Alluminio
P / T ports	3/8" G



N°	Description	Q.ty
1	Ø 5,5 through hole for mounting	4
2	OR 108 i. Ø 8,73 cross section 1,78	4



Ordering code

H	3	9	8	7	A
---	---	---	---	---	---

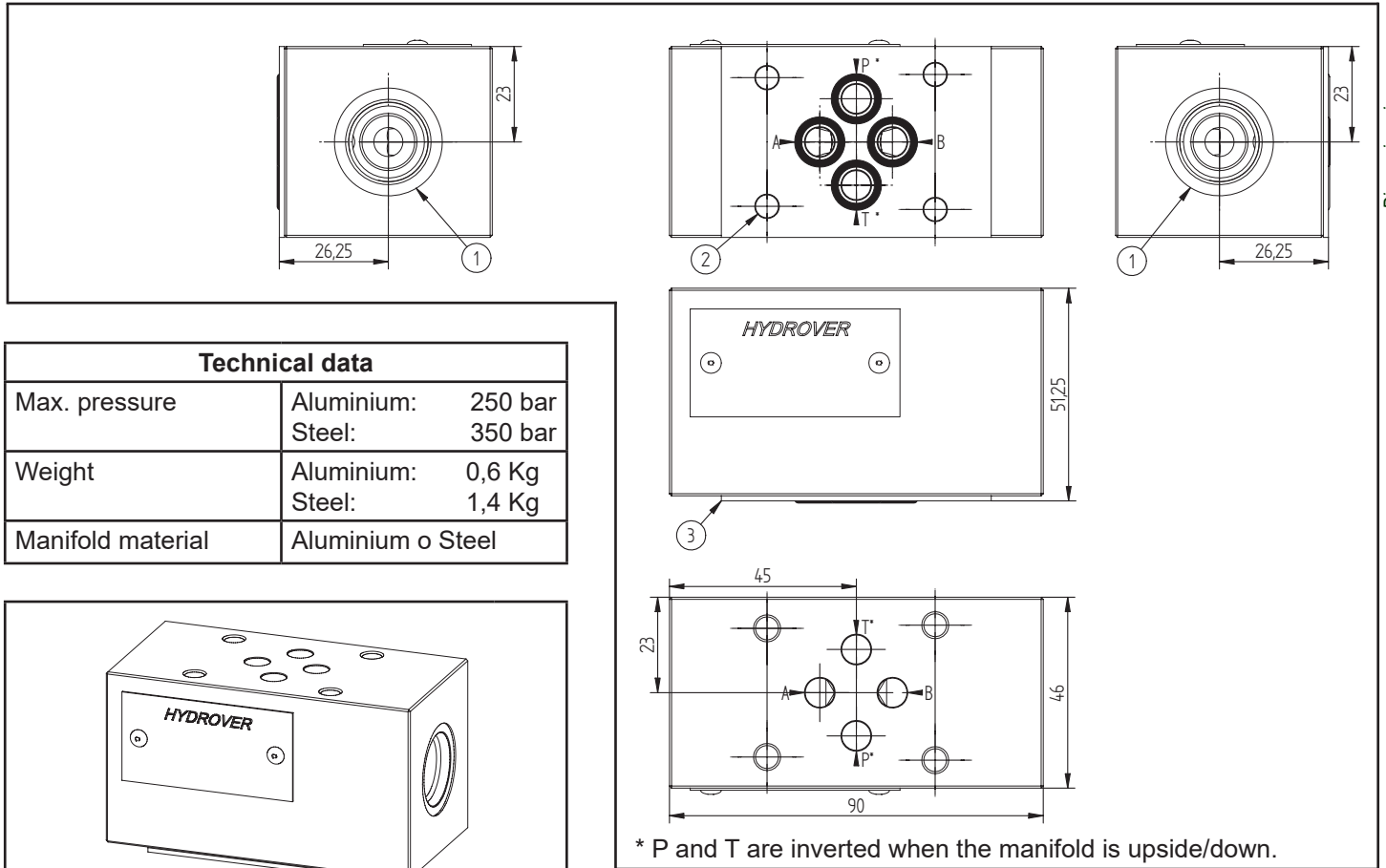
Hydrover product

Manifold material
Aluminium

Product series

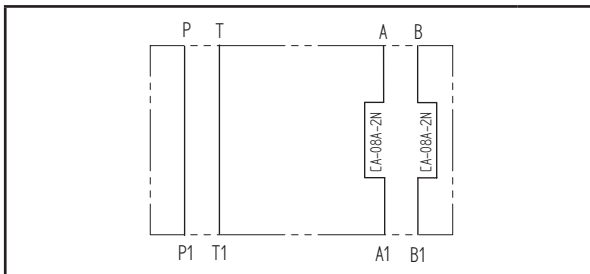
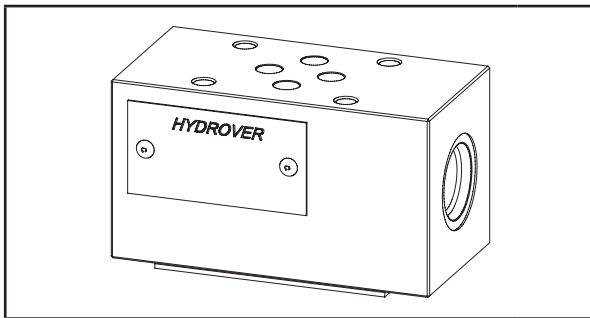
39 series - Cetop 3 modular valves

Product ID



Dimensions in mm

Technical data		
Max. pressure	Aluminium:	250 bar
	Steel:	350 bar
Weight	Aluminium:	0,6 Kg
	Steel:	1,4 Kg
Manifold material	Aluminium o Steel	



N°	Description	Q.ty
1	Cavity CA-08A-2N	2
2	∅ 5,5 through hole for mounting	4
3	Seal plate	1

This Cetop 3 modular manifold have two CA-08A-2N cavities.
 With a few valves, solenoid valves and plugs, you can configurare on A and/or B a high quantity of functions.

Ordering code

H 3 9 0 2 _

Hydrover product

Product series

39 series - Cetop 3 modular valves

Manifold material

Aluminium

Steel

Product ID

Diagram example with manifold in normal position

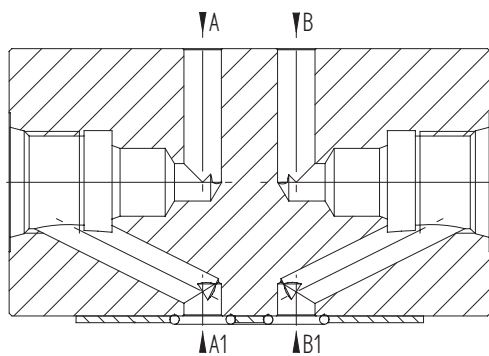
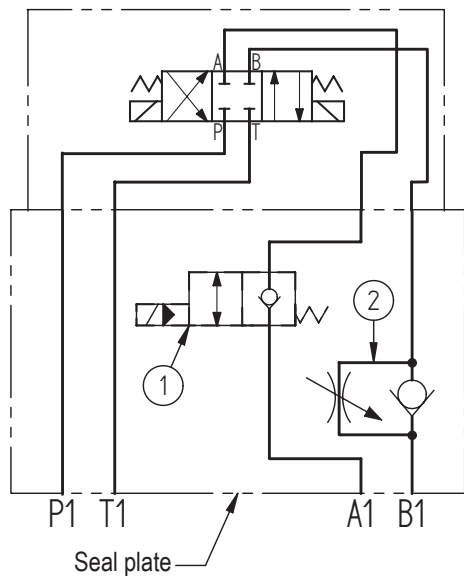
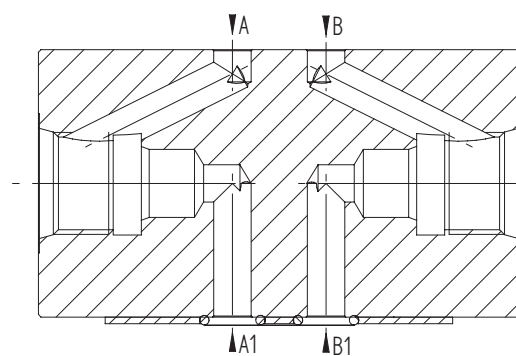
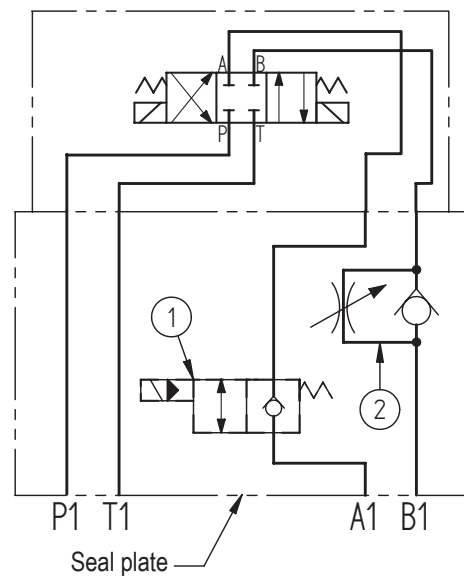
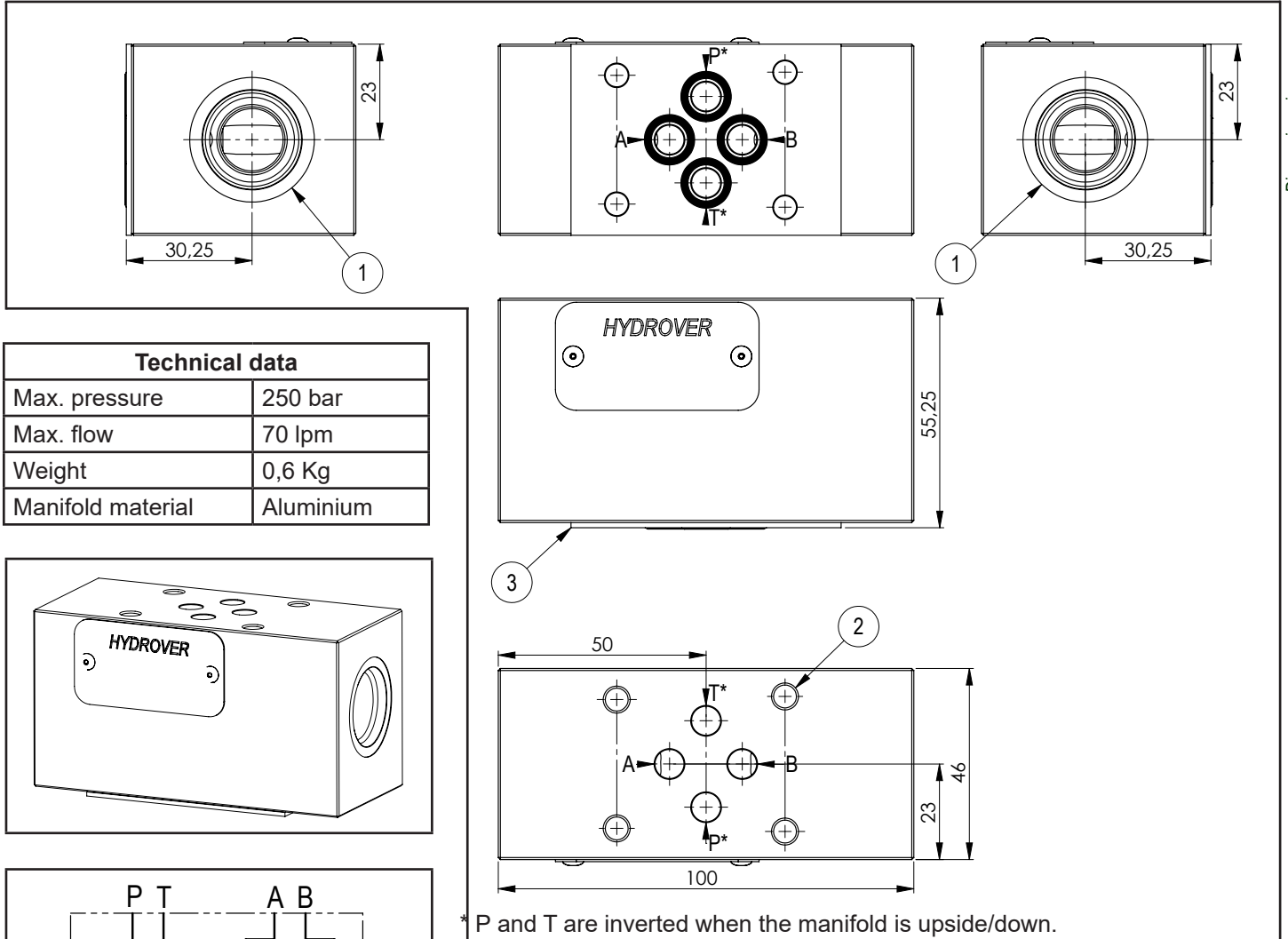


Diagram example with manifold in inverted position

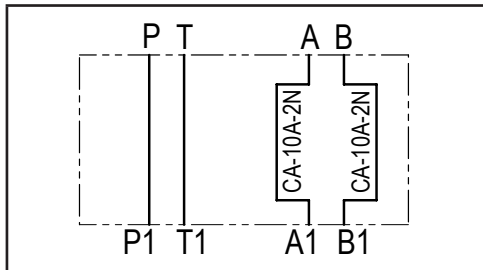
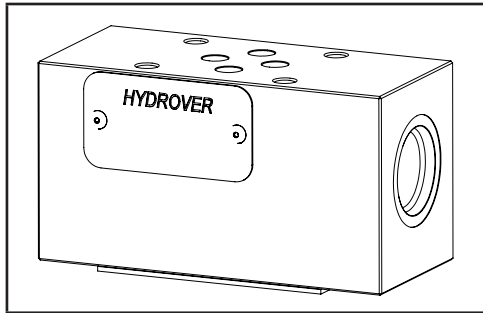


N°	Description	Q.ty
1	Bosch Rexroth solenoid valve VEI-16-08A-NA OD.15.06.18-Y-000000	1
2	Bosch Rexroth unidirectional flow restrictor STVU-08A	1

Dimensions in mm



Technical data	
Max. pressure	250 bar
Max. flow	70 lpm
Weight	0,6 Kg
Manifold material	Aluminium



This Cetop 3 modular manifold have two CA-10A-2N cavities. With a few valves, solenoid valves and plugs, you can configurare on A and/or B a high quantity of functions.

N°	Description	Q.ty
1	Cavity CA-10A-2N	2
2	Ø 5,5 through hole for mounting	4
3	Seal plate	1



Ordering code

H	3	9	6	8	A
---	---	---	---	---	---

Hydrover product

Manifold material
Aluminium

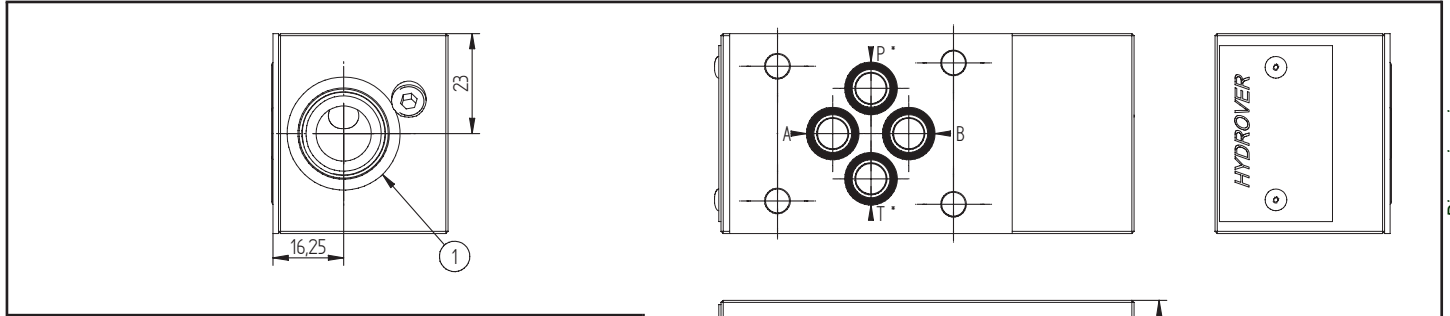
Product series

39 series - Cetop 3 modular valves

Product ID

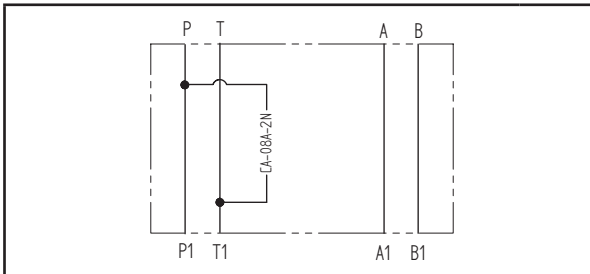
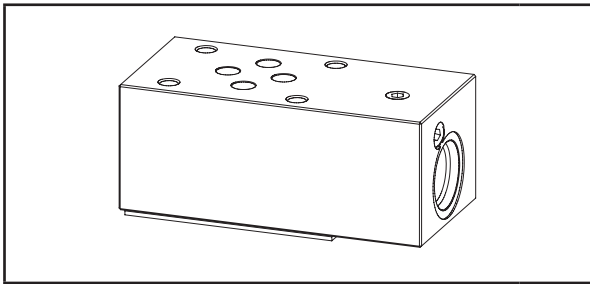
Cetop 3 modular manifold with CA-08A-2N cavity between P (end cavity) and T (side cavity) for valves / invertible with seal plate

H3908



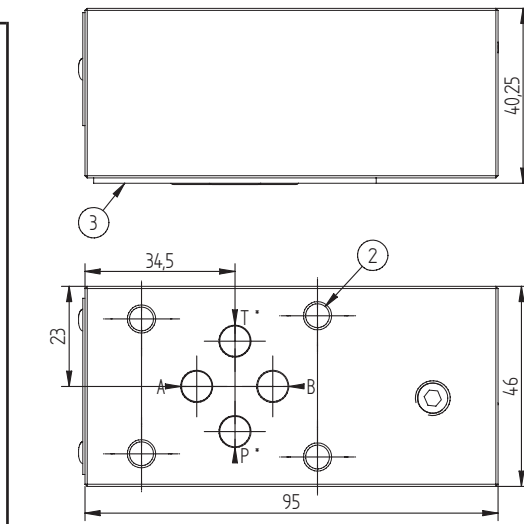
Dimensions in mm

Technical data		
Max. pressure	Aluminium:	250 bar
	Steel:	350 bar
Weight	Aluminium:	0,5 Kg
	Steel:	1,2 Kg
Manifold material	Aluminium o Steel	



N°	Description	Q.ty
1	Cavity CA-08A-2N	1
2	Ø 5,5 through hole for mounting	4
3	Seal plate	1

This Cetop 3 modular manifold have one CA-08A-2N cavity.
With a few valves and solenoid valves, you can configurare a high quantity of functions.



* P and T are inverted when the manifold is upside/down.



Ordering code

H	3	9	0	8	_
---	---	---	---	---	---

Hydrover product

Product series

39 series - Cetop 3 modular valves

A =
S =

Manifold material

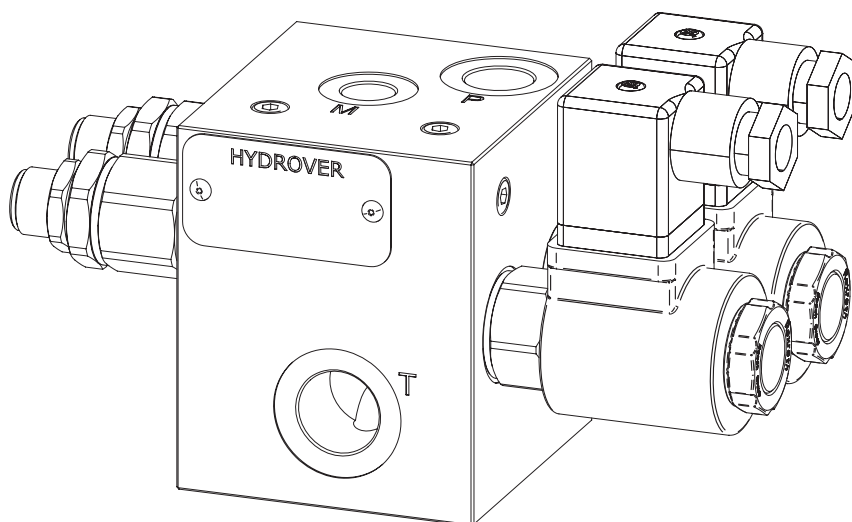
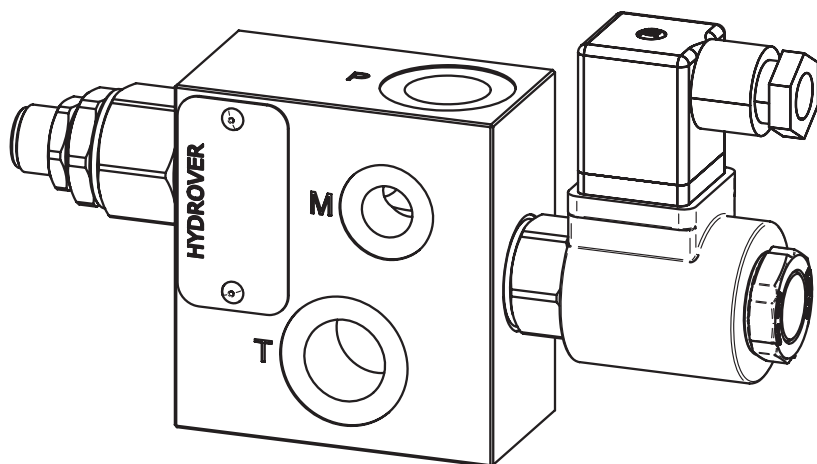
Aluminium

Steel

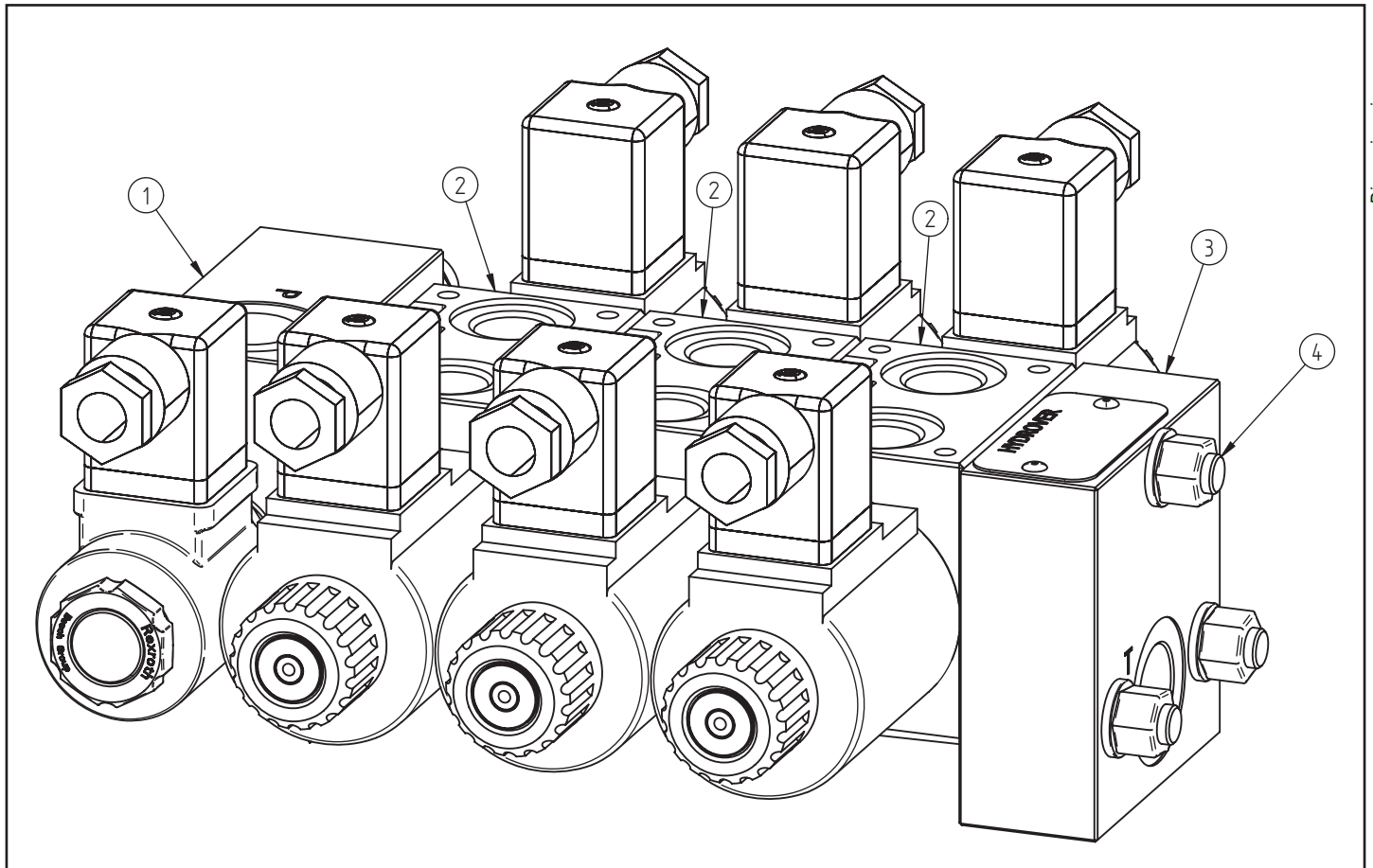
Product ID

SERIE 41

Elementi per elettro distributori bancabili ED Bosch Rexroth

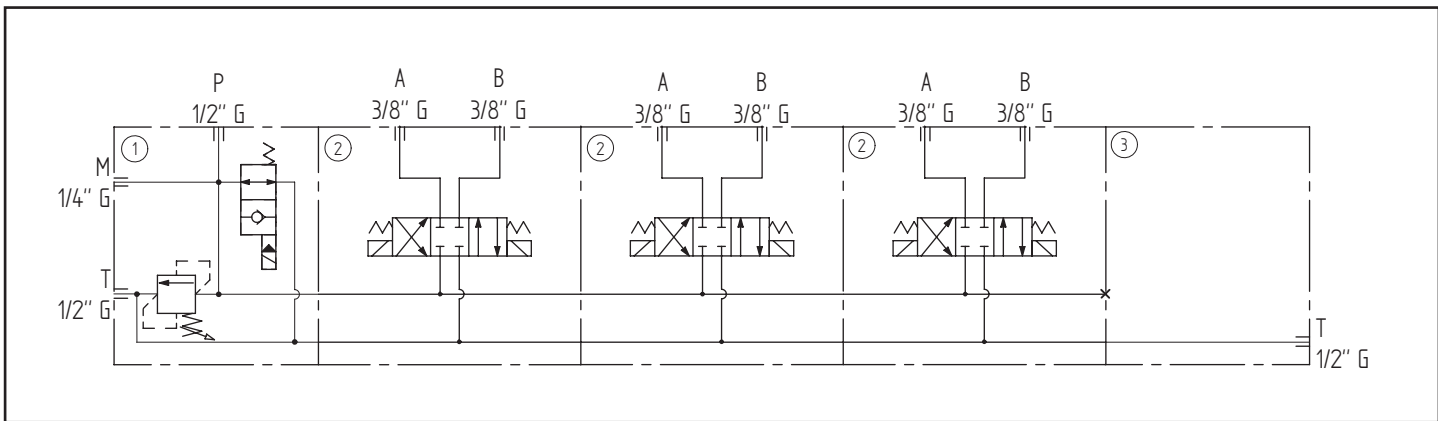
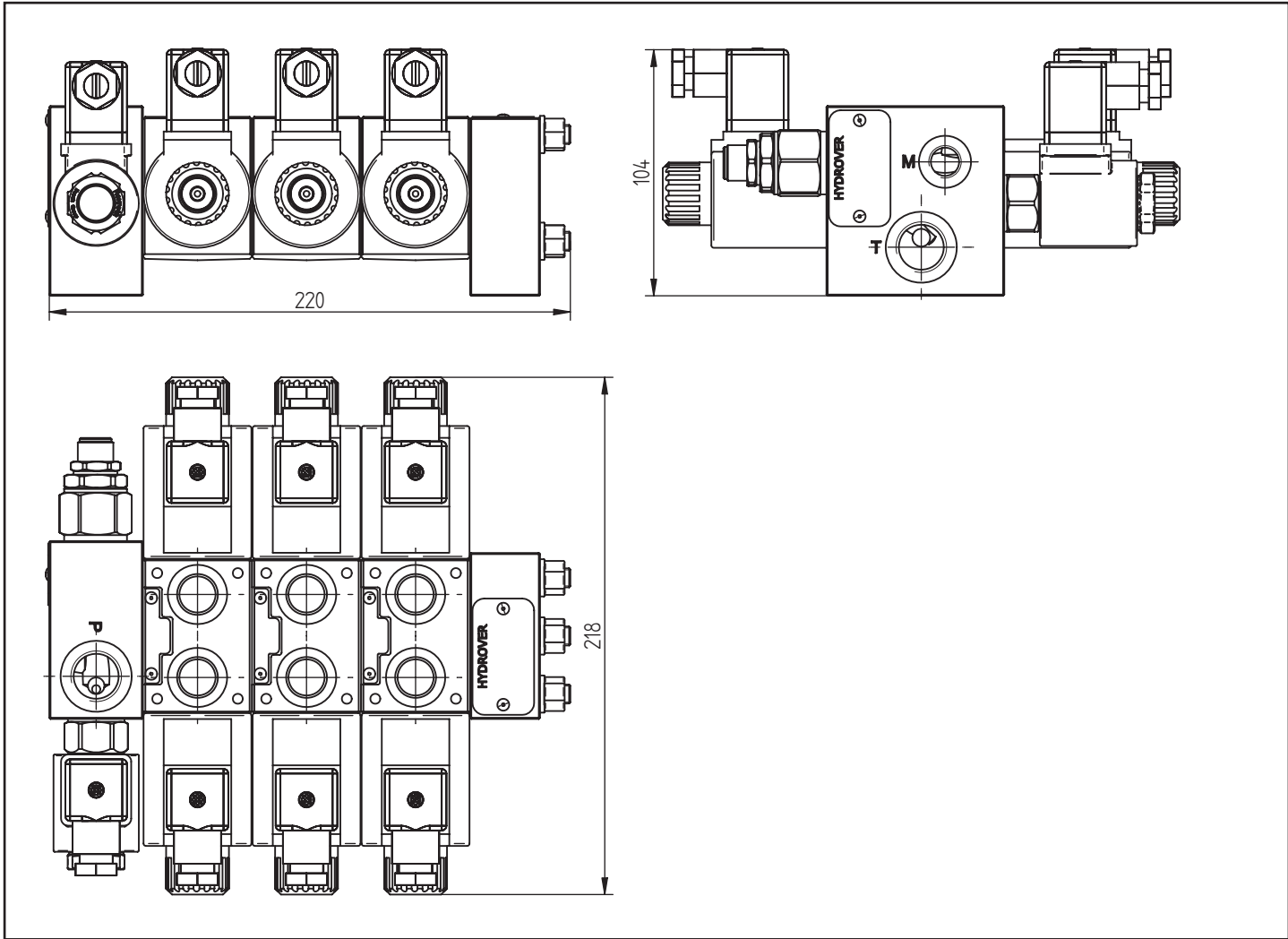


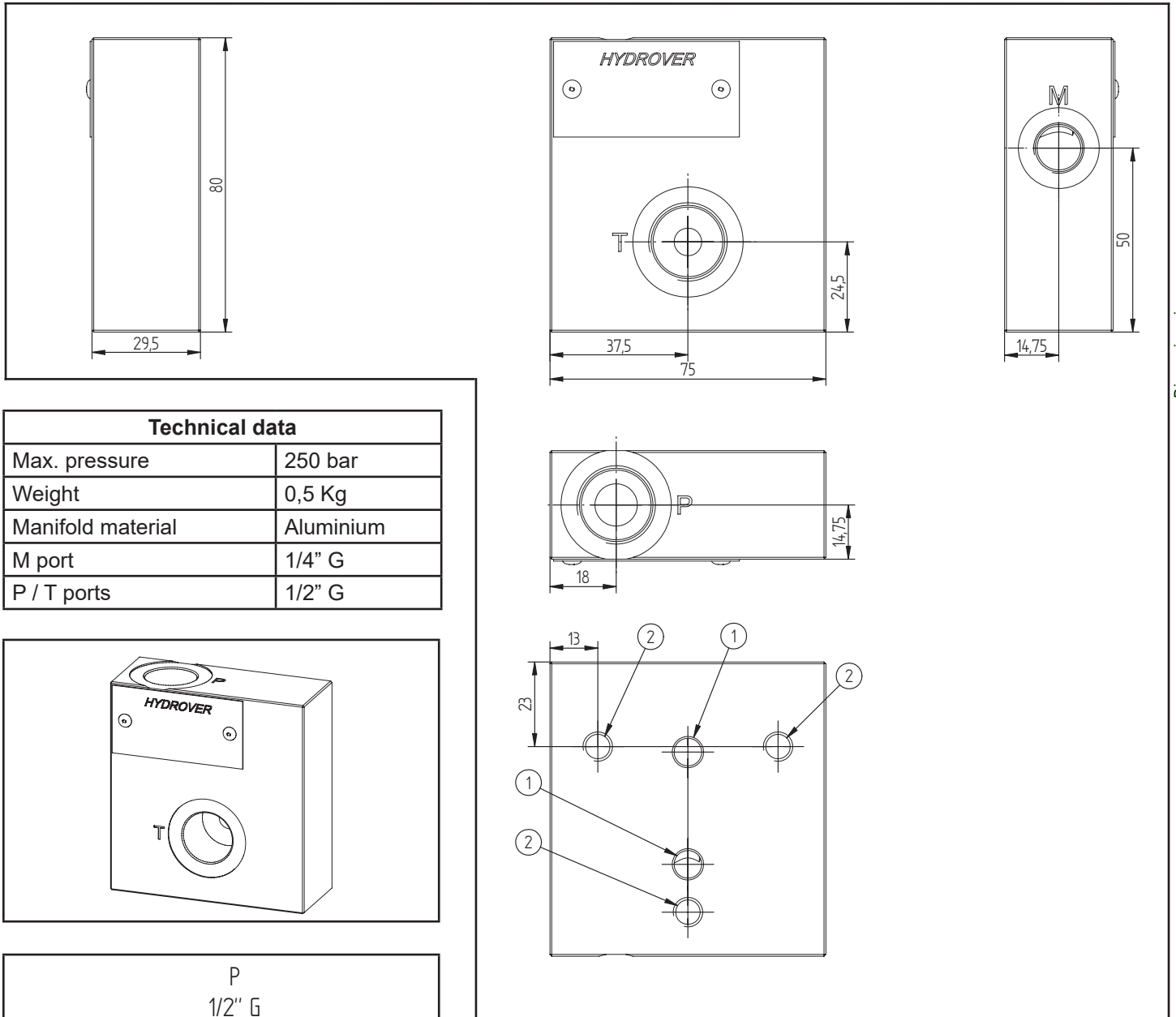
N°	Ordering code	Description	Q.ty
1	H4101A-S2-E0-OC1	INLET PLATE S41 P-T 1/2G RV 40-200 BAR EV BYPASS 24V DC DIN 40 LPM AL.	1
2	L8011B201OB0200	EE. ED2-DZ-1/2"G-PT9-B201-12DC-N WITH CONNECTOR DIN 43650 ISO 4400	3
3	H4102A	CLOSING PLATE S41 T 1/2G AL.	1
4	HKTM8X185DS-3	3 TIE RODS KIT M8X185 STANDARD NUT - S41 3 EL.	1



Note: 41 series plates have the flange for Bosch Rexroth valves from catalogue RE 18300 / RE 18301, but are not compatible with Bosch Rexroth plates.

For checking if your configuration is technically correct please contact our sales office.





Dimensions in mm

N°	Description	Q.ty
1	Ø 7,5 hole without counterbore for O-ring (P-T)	2
2	M8x17 for tie rod	3
3	M8x15 thread for mounting	2



Ordering code

H	4	1	0	4	A
---	---	---	---	---	---

Hydrover product

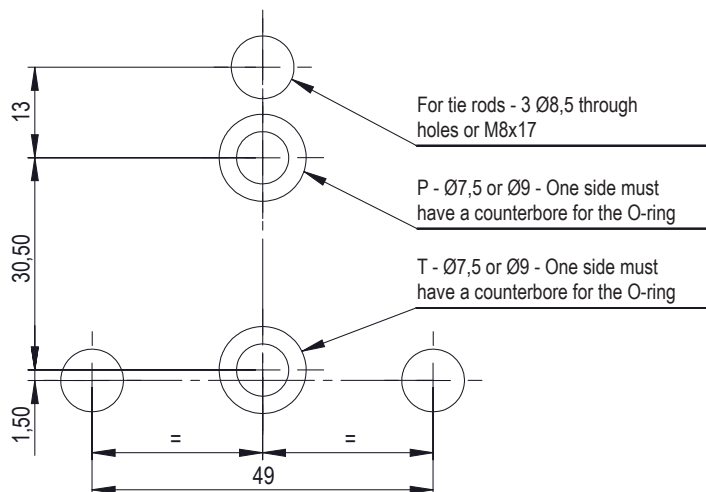
Manifold material
Aluminium

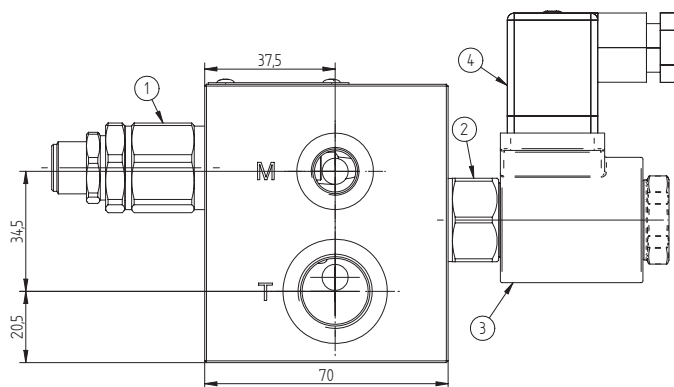
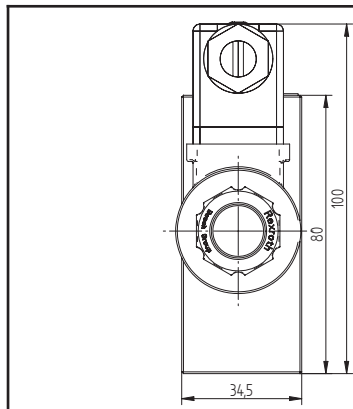
Product series

41 series - Plates for Bosch Rexroth ED bankable valves

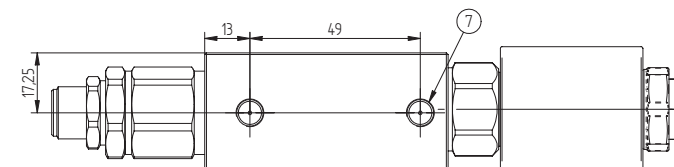
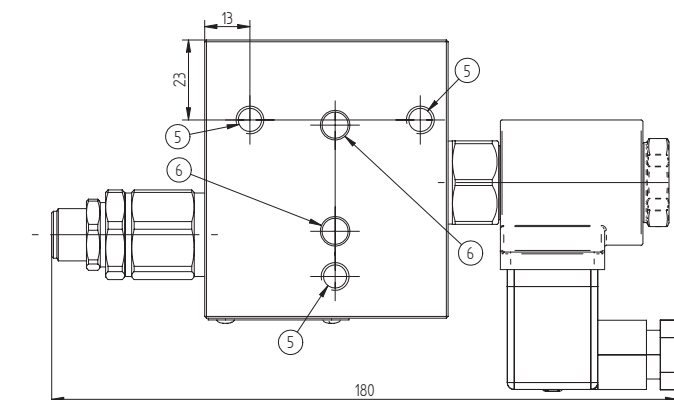
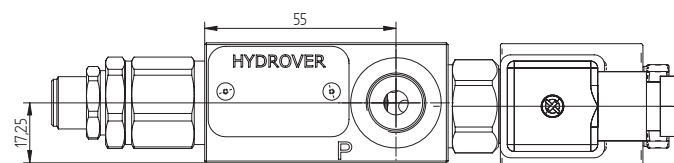
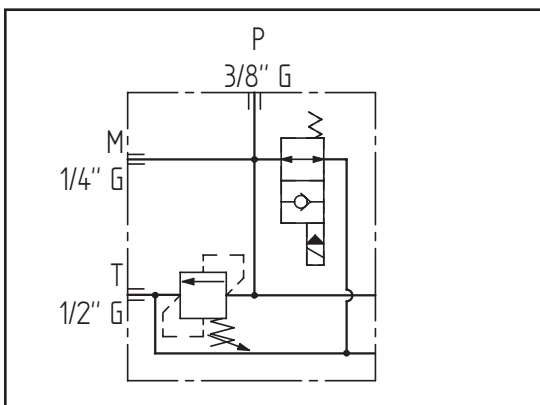
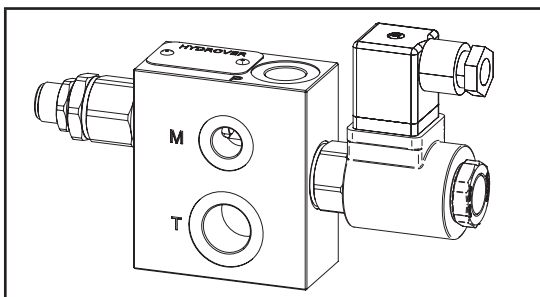
Product ID

Flange





Technical data	
Max. pressure	250 bar
Max. flow	30 lpm *
Weight	0,8 Kg
Manifold material	Aluminium
M port	1/4" G
P port	3/8" G
T port	1/2" G



Dimensions in mm

N°	Description	Q.ty
1	Bosch Rexroth relief valve VMD1.025 *	1
2	Bosch Rexroth bypass solenoid valve VEI-16-08A-NA OD.15.06.18-Y-000000 depicted without manual override *	1
3	Bosch Rexroth coil D36 - CLASS H DIN 43650 ISO 4400 *	1
4	Connector DIN 43650 ISO 4400	1
5	M8x17 for tie rod	3
6	Ø 7,5 hole without counterbore for O-ring (P-T)	2
7	M8x15 thread for mounting	2

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue

Ordering code

H 4 1 0 3 A - - - - -

Hydrover product

Product series

41 series - Plates for Bosch Rexroth ED bankable valves

Product ID

Manifold material

Aluminium

Relief valve adjustment type *

Screw

= S

Relief valve adjustment pressure range *

25-120 bar

= 1

40-200 bar

= 2

200-350 bar

= 3

Solenoid valve coil connection *

1 = DIN 43650 ISO 4400

Solenoid valve coil voltage *

OB = 12V DC
 OC = 24V DC
 OD = 48V DC
 OU = 110V RAC
 AH = 230V RAC

Solenoid valve manual override *

E0 = Without
 EP = Push
 EG = Push and twist

* Omit if not required. For example, to order the product without the bypass solenoid cartridge valve, omit the coil connection, coil voltage and manual override options: H4103A-S2.

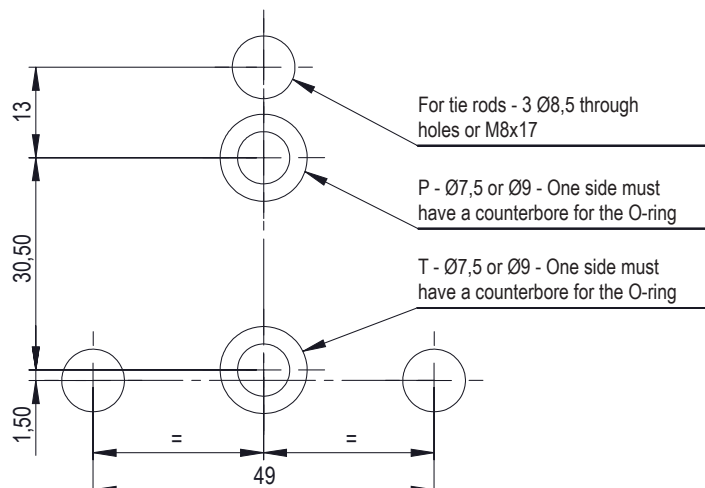
The manifold will still be provided with the corresponding cavity.

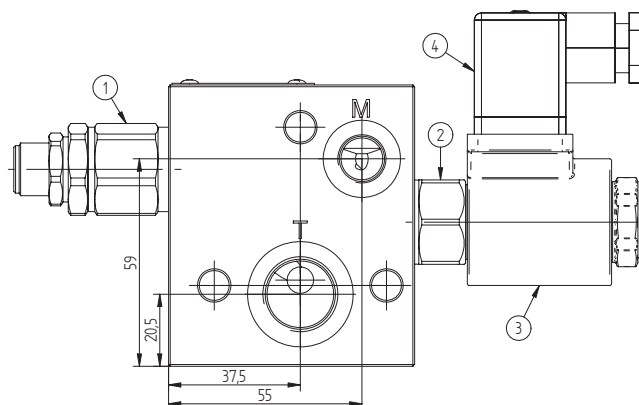
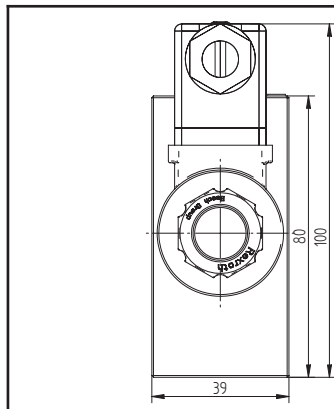
To inhibit a function, replace the related valve options with TL: eg H4103A-S2-TL.

In the cavity it will be mounted a long plug.

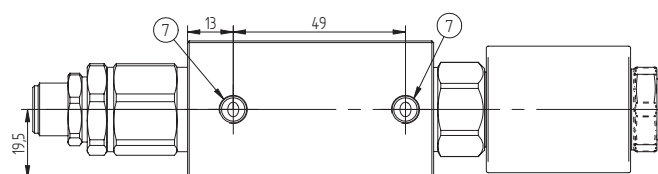
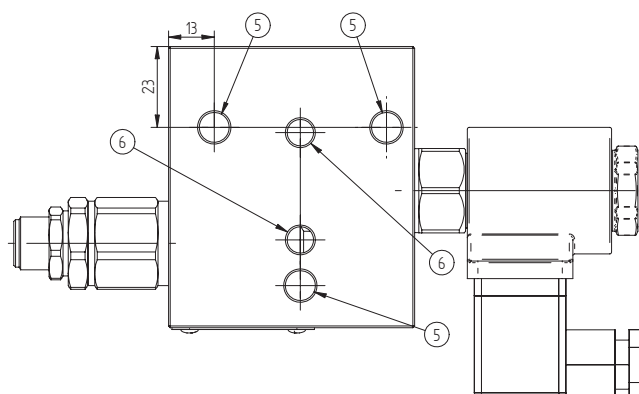
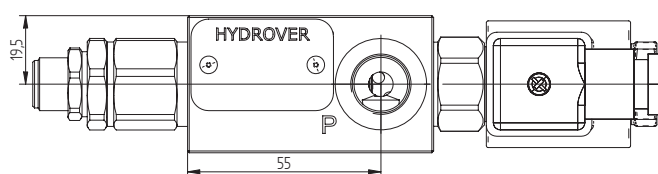
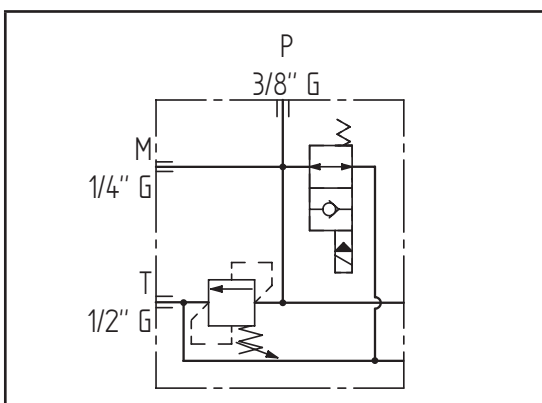
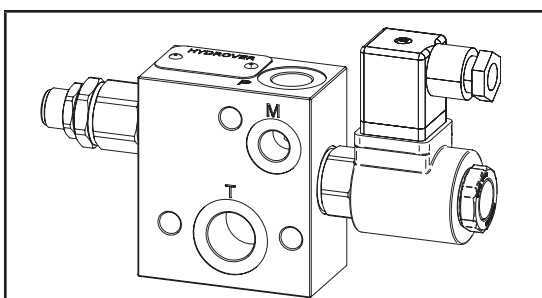
Valve	Cavity	Long plug code
Solenoid valve VEI-16-08A-NA OD.15.06.18-Y-000000	CA-08A-2N	0489A2005600000
Pressure relief valve VMD1.025	VMD1.025	R-800-016

Flange





Technical data	
Max. pressure	250 bar
Max. flow	30 lpm *
Weight	1 Kg
Manifold material	Aluminium
M port	1/4" G
P port	3/8" G
T port	1/2" G



Dimensions in mm

N°	Description	Q.ty
1	Bosch Rexroth relief valve VMD1.025 *	1
2	Bosch Rexroth bypass solenoid valve VEI-16-08A-NA OD.15.06.18-Y-000000 depicted without manual override *	1
3	Bosch Rexroth coil D36 - CLASS H DIN 43650 ISO 4400 *	1
4	Connector DIN 43650 ISO 4400	1
5	Ø 8,5 through hole for tie rod	3
6	Ø 7,5 hole without counterbore for O-ring (P-T)	2
7	M8x15 thread for mounting	2

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue

Ordering code

H 4 1 0 7 A - - - - -

Hydrover product

Product series

41 series - Plates for Bosch Rexroth ED bankable valves

Product ID

Manifold material

Aluminium

Relief valve adjustment type *

Screw

= S

Relief valve adjustment pressure range *

25-120 bar

= 1

40-200 bar

= 2

200-350 bar

= 3

Solenoid valve coil connection *

1 = DIN 43650 ISO 4400

Solenoid valve coil voltage *

OB = 12V DC
 OC = 24V DC
 OD = 48V DC
 OU = 110V RAC
 AH = 230V RAC

Solenoid valve manual override *

E0 = Without
 EP = Push
 EG = Push and twist

* Omit if not required. For example, to order the product without the bypass solenoid cartridge valve, omit the coil connection, coil voltage and manual override options: H4107A-S2.

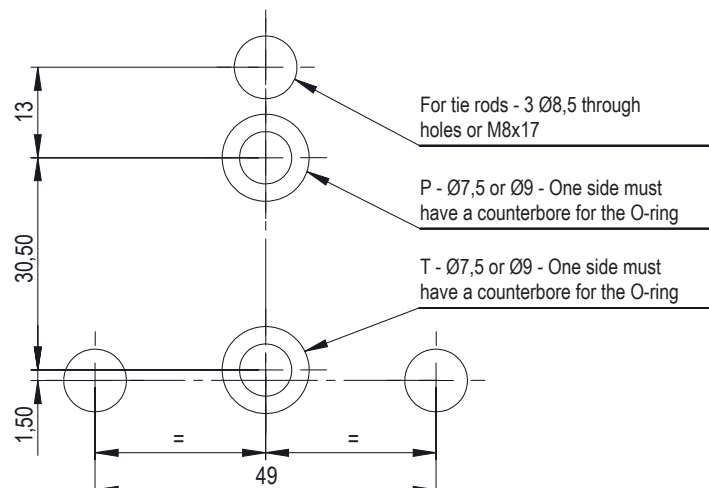
The manifold will still be provided with the corresponding cavity.

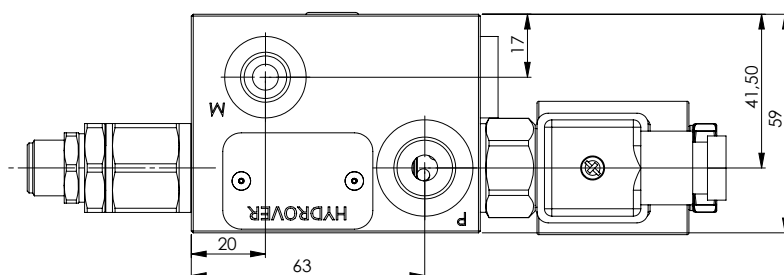
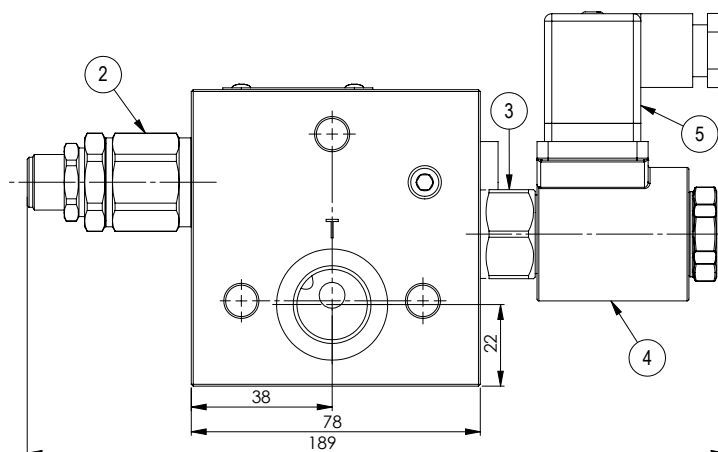
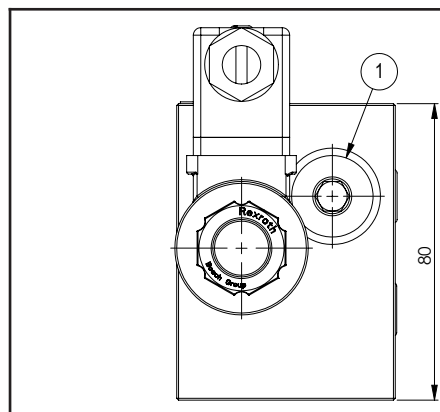
To inhibit a function, replace the related valve options with TL: eg H4107A-S2-TL.

In the cavity it will be mounted a long plug.

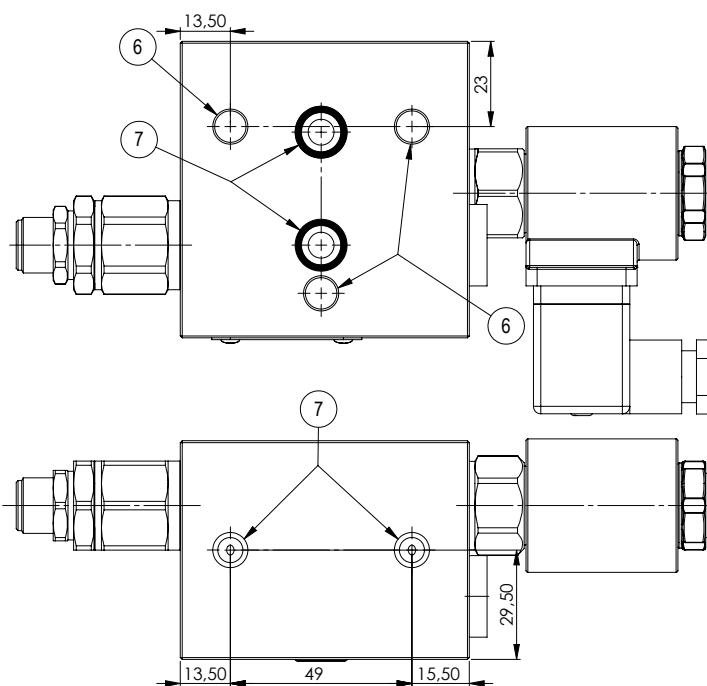
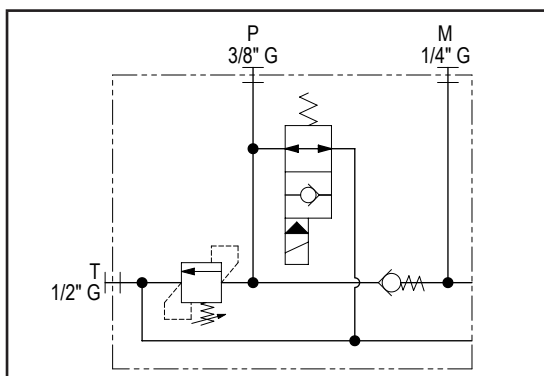
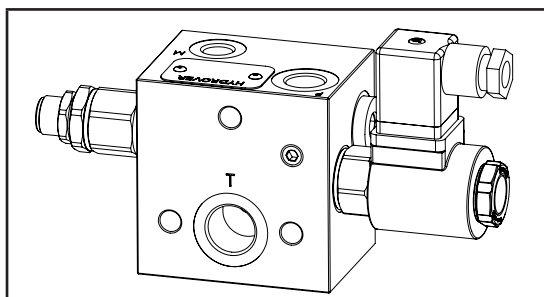
Valve	Cavity	Long plug code
Solenoid valve VEI-16-08A-NA OD.15.06.18-Y-000000	CA-08A-2N	0489A2005600000
Pressure relief valve VMD1.025	VMD1.025	R-800-016

Flange





Technical data	
Max. pressure	250 bar
Max. flow	30 lpm *
Weight	1,4 Kg
Manifold material	Aluminium
M port	1/4" G
P port	3/8" G
T port	1/2" G



Dimensions in mm

N°	Description	Q.ty
1	Check valve 0TU301000200 (under the plug) *	1
2	Bosch Rexroth relief valve VMD1.025 *	1
3	Bosch Rexroth bypass solenoid valve VEI-16-08A-NA OD.15.06.18-Y-000000 depicted without manual override *	1
4	Bosch Rexroth coil D36 - CLASS H DIN 43650 ISO 4400 *	1
5	Connector DIN 43650 ISO 4400	1
6	Ø 8,5 through hole for tie rod	3
7	Ø 7,5 hole with OR 2043 i. Ø 10,82 cross section 1,78 (P-T)	2
8	M8x15 thread for mounting	2

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue

Ordering code

H 4 1 1 2 A - - - - -

Hydrover product

Product series

41 series - Plates for Bosch Rexroth ED bankable valves

Product ID

Manifold material

Aluminium

Relief valve adjustment type *

Screw

= S

Relief valve adjustment pressure range *

25-120 bar

= 1

40-200 bar

= 2

200-350 bar

= 3

Solenoid valve coil connection *

1 = DIN 43650 ISO 4400

Solenoid valve coil voltage *

OB = 12V DC
 OC = 24V DC
 OD = 48V DC
 OU = 110V RAC
 AH = 230V RAC

Solenoid valve manual override *

E0 = Without
 EP = Push
 EG = Push and twist

* Omit if not required. For example, to order the product without the bypass solenoid cartridge valve, omit the coil connection, coil voltage and manual override options: H4112A-S2.

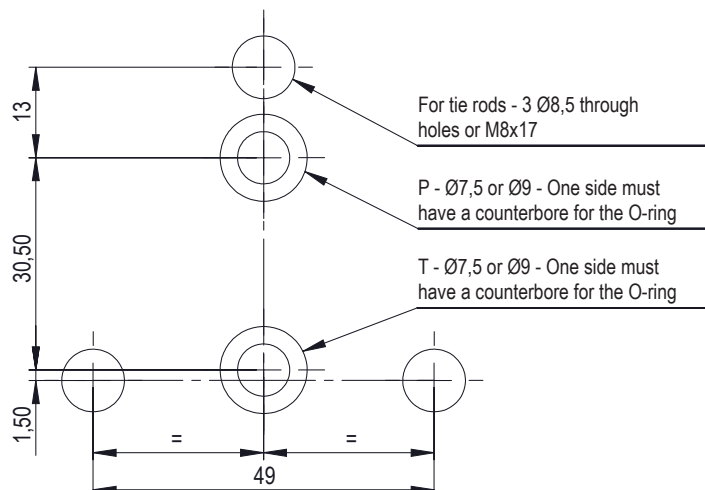
The manifold will still be provided with the corresponding cavity.

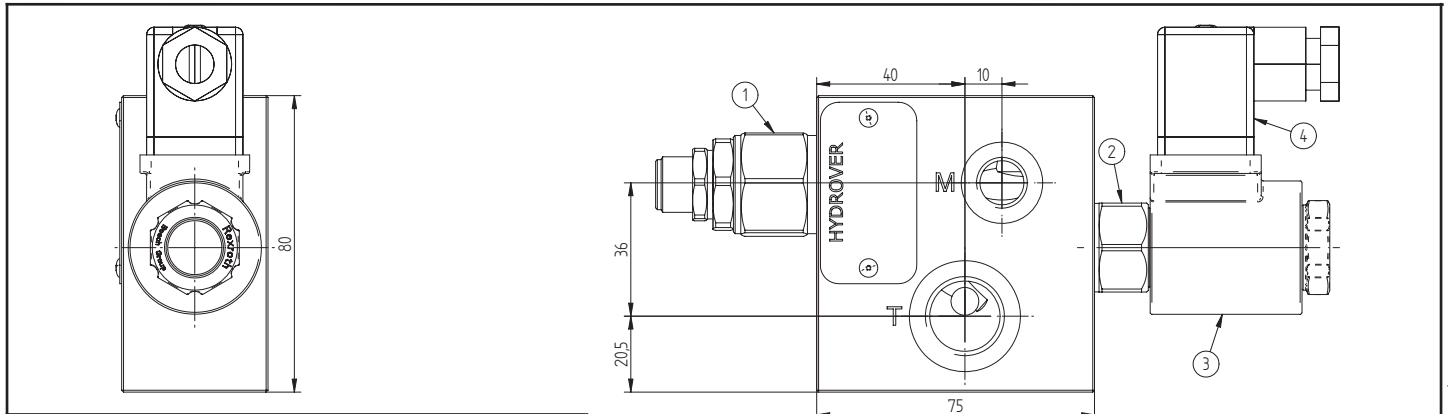
To inhibit a function, replace the related valve options with TL: eg H4112A-S2-TL.

In the cavity it will be mounted a long plug.

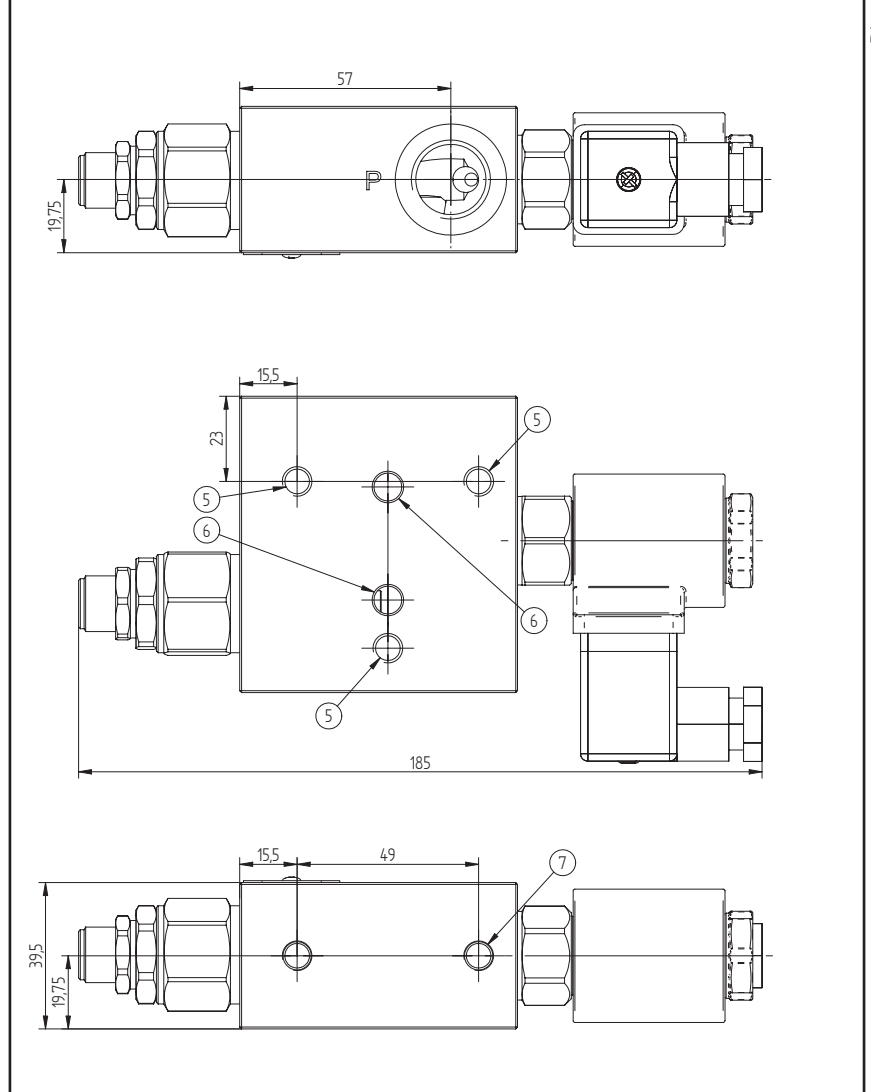
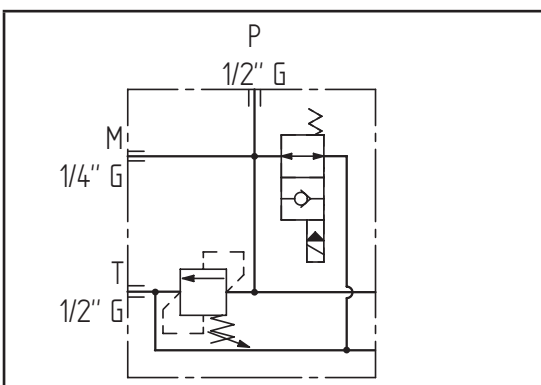
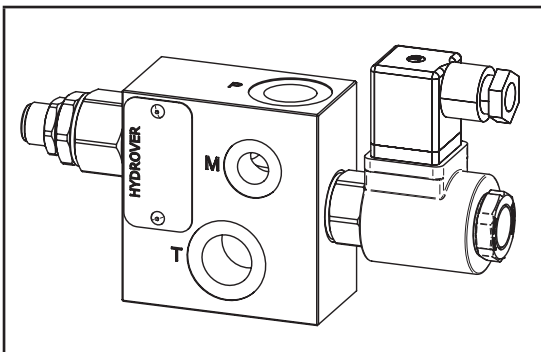
Valve	Cavity	Long plug code
Solenoid valve VEI-16-08A-NA OD.15.06.18-Y-000000	CA-08A-2N	0489A2005600000
Pressure relief valve VMD1.025	VMD1.025	R-800-016

Flange





Technical data	
Max. pressure	250 bar
Max. flow	40 lpm *
Weight	1,1 Kg
Manifold material	Aluminium
M port	1/4" G
P / T ports	1/2" G



Dimensions in mm

N°	Description	Q.ty
1	Bosch Rexroth relief valve VMD1.040 *	1
2	Bosch Rexroth bypass solenoid valve VEI-16-08A-NA OD.15.06.18-Y-000000 depicted without manual override *	1
3	Bosch Rexroth coil D36 - CLASS H DIN 43650 ISO 4400 *	1
4	Connector DIN 43650 ISO 4400	1
5	M8x17 for tie rod	3
6	Ø 7,5 hole without counterbore for O-ring (P-T)	2
7	M8x15 thread for mounting	2

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue

Ordering code

H 4 1 0 1 A - - - - -

Hydrover product

Product series

41 series - Plates for Bosch Rexroth ED bankable valves

Product ID

Manifold material

Aluminium

Relief valve adjustment type *

Screw

= S

Relief valve adjustment pressure range *

25-120 bar

= 1

40-200 bar

= 2

200-350 bar

= 3

Solenoid valve coil connection *

1 = DIN 43650 ISO 4400

Solenoid valve coil voltage *

OB = 12V DC
 OC = 24V DC
 OD = 48V DC
 OU = 110V RAC
 AH = 230V RAC

Solenoid valve manual override *

E0 = Without
 EP = Push
 EG = Push and twist

* Omit if not required. For example, to order the product without the bypass solenoid cartridge valve, omit the coil connection, coil voltage and manual override options: H4101A-S2.

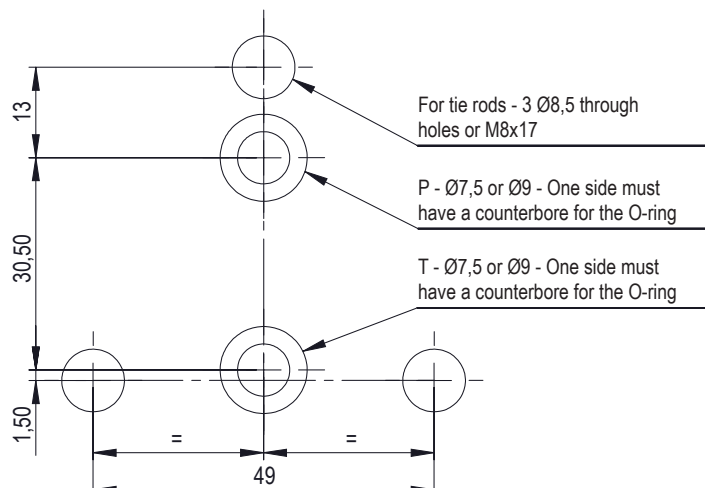
The manifold will still be provided with the corresponding cavity.

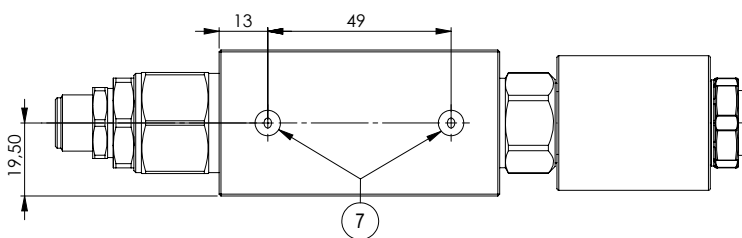
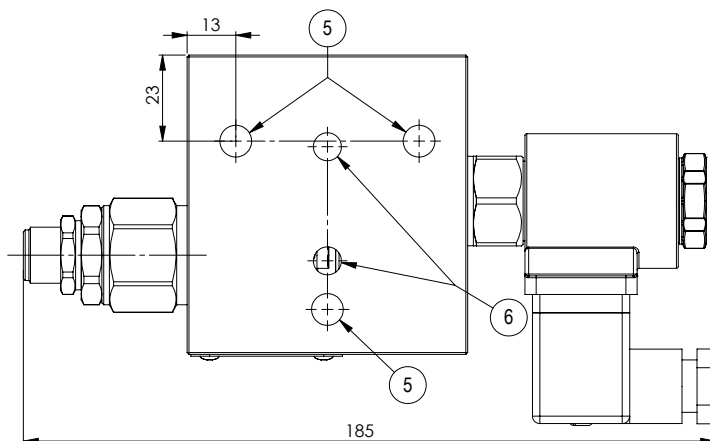
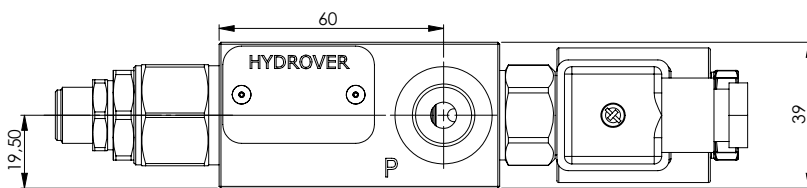
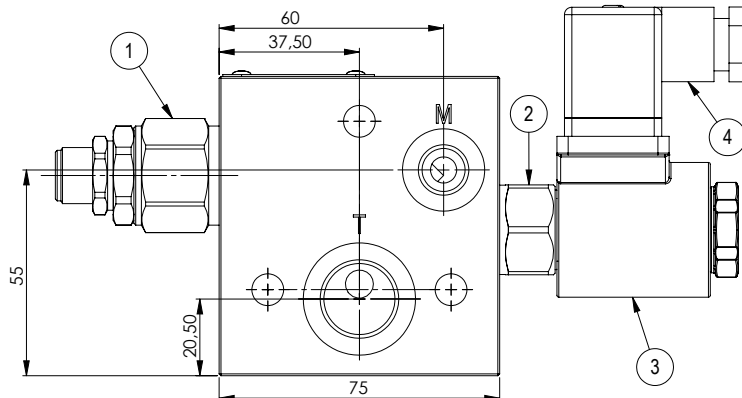
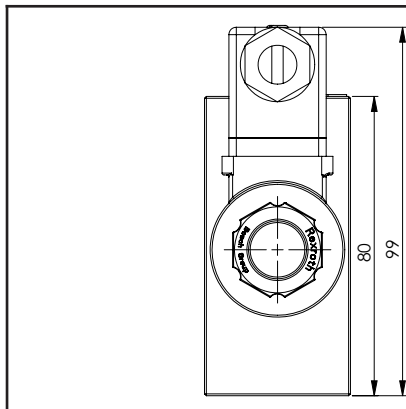
To inhibit a function, replace the related valve options with TL: eg H4101A-S2-TL.

In the cavity it will be mounted a long plug.

Valve	Cavity	Long plug code
Solenoid valve VEI-16-08A-NA OD.15.06.18-Y-000000	CA-08A-2N	0489A2005600000
Pressure relief valve VMD1.040	CA-10A-2N	0489A2008500000

Flange

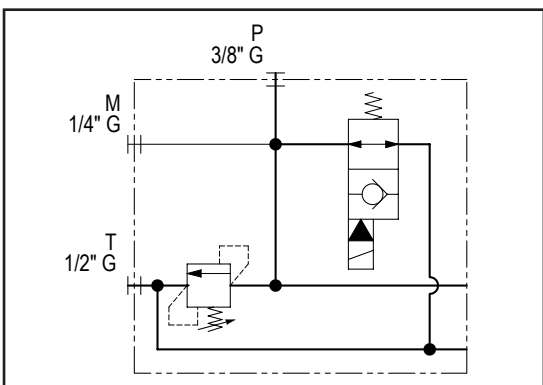
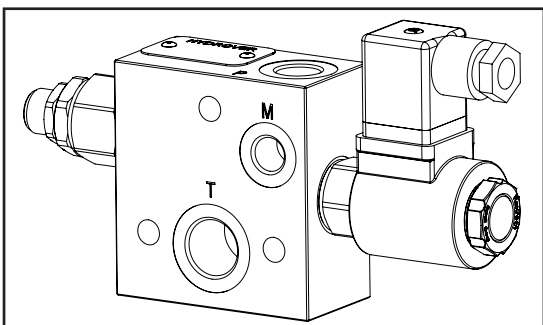




Dimensions in mm

Technical data

Max. pressure	250 bar
Max. flow	40 lpm *
Weight	1,1 Kg
Manifold material	Aluminium
M port	1/4" G
P port	3/8" G
T port	1/2" G



N°	Description	Q.ty
1	Bosch Rexroth relief valve VMD1.040 *	1
2	Bosch Rexroth bypass solenoid valve VEI-16-08A-NA OD.15.06.18-Y-000000 depicted without manual override *	1
3	Bosch Rexroth coil D36 - CLASS H DIN 43650 ISO 4400 *	1
4	Connector DIN 43650 ISO 4400	1
5	Ø 8,5 through hole for tie rod	3
6	Ø 7,5 hole without counterbore for O-ring (P-T)	2
7	M8x15 thread for mounting	2

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue

Ordering code

H 4 1 2 4 A - - - - -

Hydrover product

Product series

41 series - Plates for Bosch Rexroth ED bankable valves

Product ID

Manifold material

Aluminium

Relief valve adjustment type *

Screw

= S

Relief valve adjustment pressure range *

25-120 bar

= 1

40-200 bar

= 2

200-350 bar

= 3

Solenoid valve coil connection *

1 = DIN 43650 ISO 4400

Solenoid valve coil voltage *

OB = 12V DC
 OC = 24V DC
 OD = 48V DC
 OU = 110V RAC
 AH = 230V RAC

Solenoid valve manual override *

E0 = Without
 EP = Push
 EG = Push and twist

* Omit if not required. For example, to order the product without the bypass solenoid cartridge valve, omit the coil connection, coil voltage and manual override options: H4124A-S2.

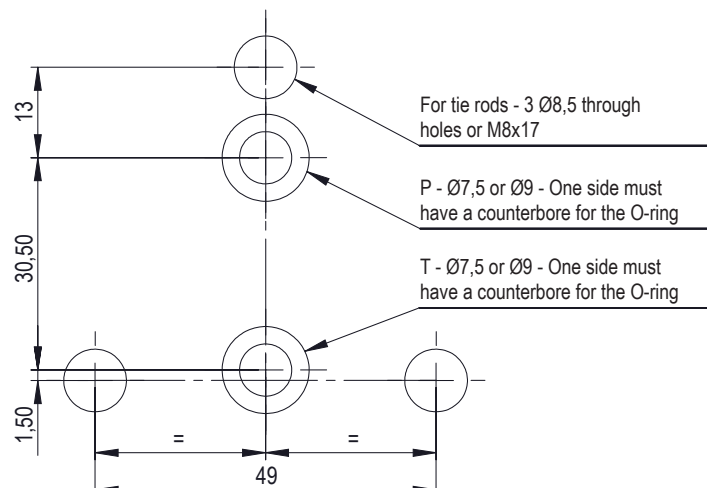
The manifold will still be provided with the corresponding cavity.

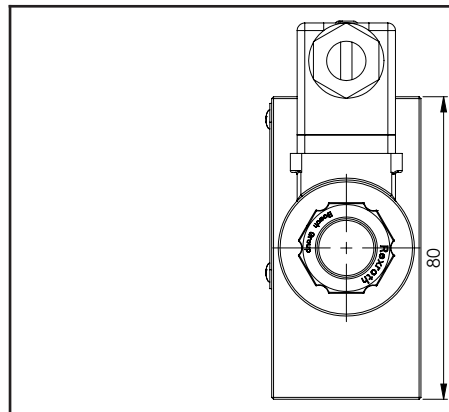
To inhibit a function, replace the related valve options with TL: eg H4124A-S2-TL.

In the cavity it will be mounted a long plug.

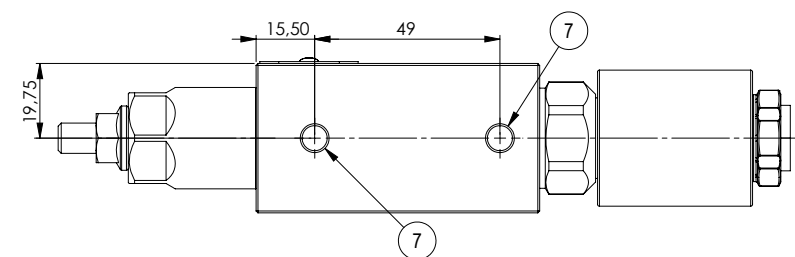
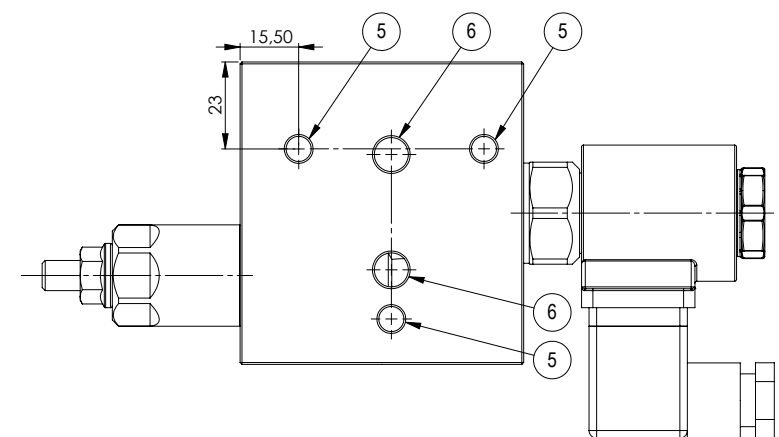
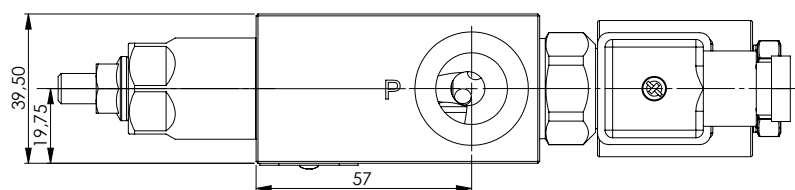
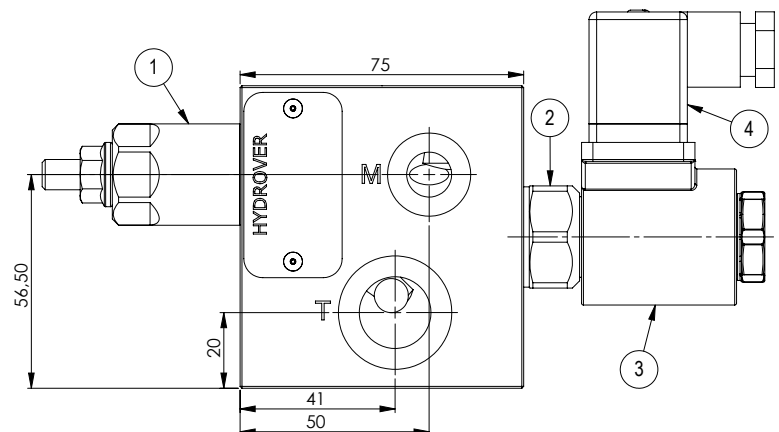
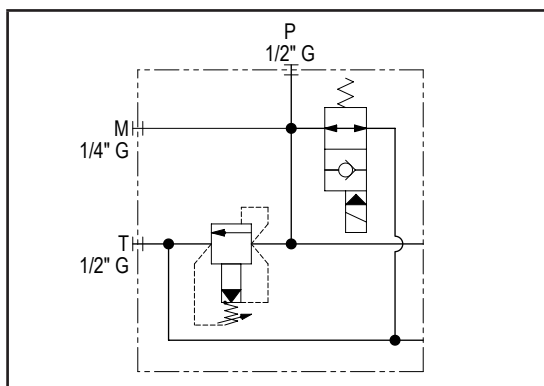
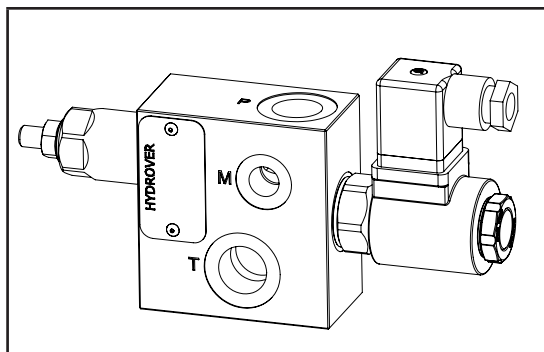
Valve	Cavity	Long plug code
Solenoid valve VEI-16-08A-NA OD.15.06.18-Y-000000	CA-08A-2N	0489A2005600000
Pressure relief valve VMD1.040	CA-10A-2N	0489A2008500000

Flange





Technical data	
Max. pressure	250 bar
Max. flow	60 lpm *
Weight	1,3 Kg
Manifold material	Aluminium
M port	1/4" G
P / T ports	1/2" G



Dimensions in mm

N°	Description	Q.ty
1	Bosch Rexroth relief valve VSPN-10A *	1
2	Bosch Rexroth bypass solenoid valve VEI-16-10A-NA OD.15.06.36-Y-000000 *	1
3	Bosch Rexroth coil D36 - CLASS H DIN 43650 ISO 4400 *	1
4	Connector DIN 43650 ISO 4400	1
5	M8x17 for tie rod	3
6	Ø 9 hole without counterbore for O-ring (P-T)	2
7	M8x15 thread for mounting	2

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue

Ordering code

H 4 1 0 8 A - - - - -

Hydrover product

Product series

41 series - Plates for Bosch Rexroth ED bankable valves

Product ID

Manifold material

Aluminium

Relief valve adjustment type *

Screw = S
Knob = K

Relief valve adjustment pressure range *

35-140 bar = 1
70-280 bar = 2
140-420 bar = 3
35-350 bar (adj. knob) = 3

Solenoid valve coil connection *

1 = DIN 43650 ISO 4400

Solenoid valve coil voltage *

OB = 12V DC
OC = 24V DC
OD = 48V DC
OU = 110V RAC
AH = 230V RAC

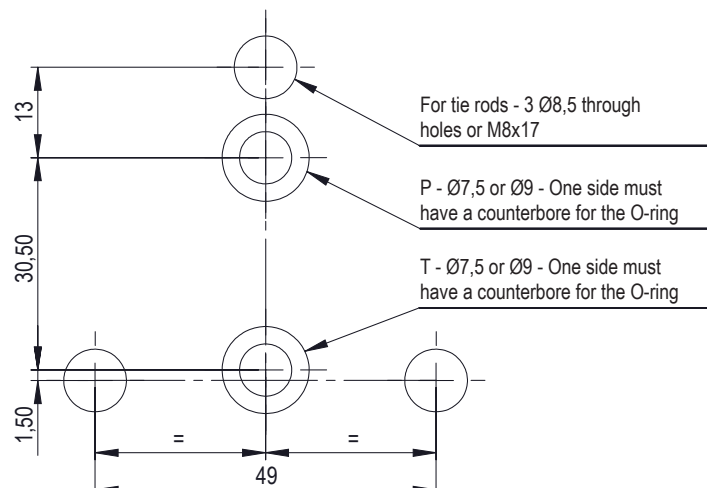
Solenoid valve manual override *

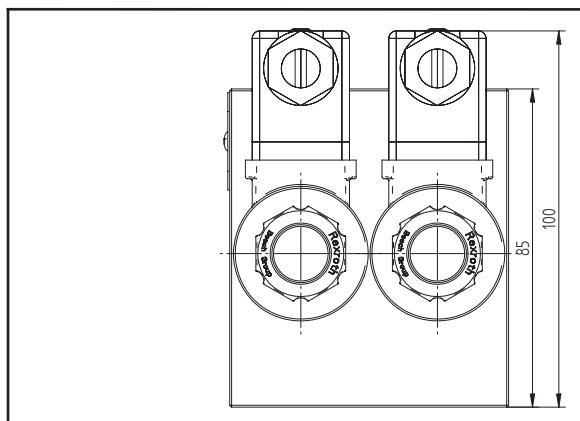
E0 = Without
EP = Push
EG = Push and twist

* Omit if not required. For example, to order the product without the bypass solenoid cartridge valve, omit the coil connection, coil voltage and manual override options: H4108A-S2.
The manifold will still be provided with the corresponding cavity.
To inhibit a function, replace the related valve options with TL: eg H4108A-S2-TL.
In the cavity it will be mounted a long plug.

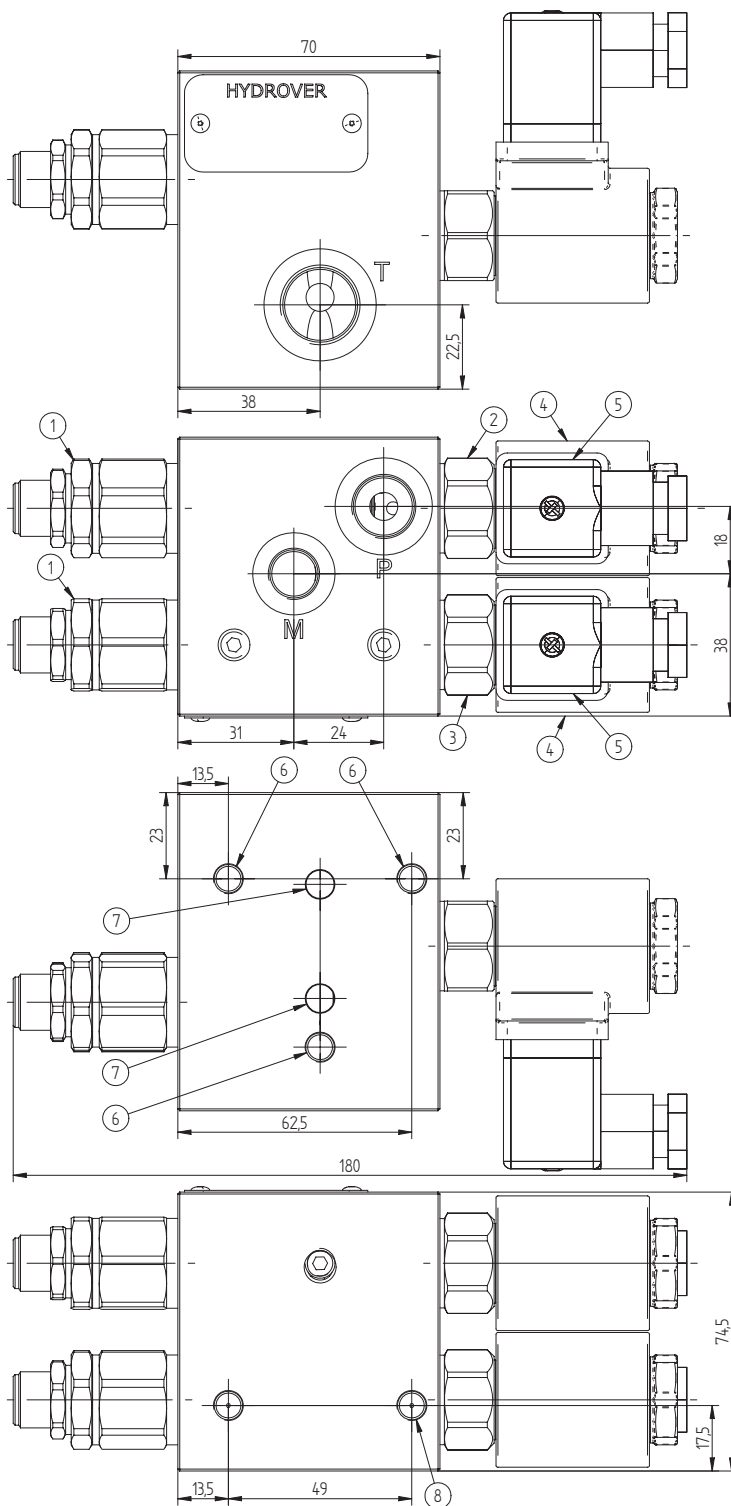
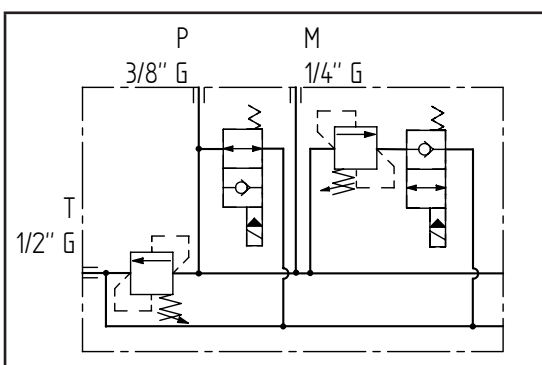
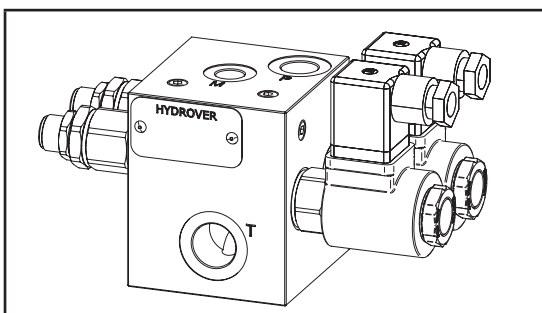
Valve	Cavity	Long plug code
Solenoid valve VEI-16-10A-NA OD.15.06.36-Y-000000	CA-10A-2N	0489A2008500000
Pressure relief valve VSPN-10A	CA-10A-2N	0489A2008500000

Flange





Technical data	
Max. pressure	250 bar
Max. flow	30 lpm *
Weight	2,9 Kg
Manifold material	Aluminium
M port	1/4" G
P port	3/8" G
T port	1/2" G



Dimensions in mm

N°	Description	Q.ty
1	Bosch Rexroth relief valve VMD1.025 *	2
2	Bosch Rexroth bypass solenoid valve VEI-16-08A-NA OD.15.06.18-Y-000000 *	1
3	Bosch Rexroth pressure switch solenoid valve VEI-16-08A-NC OD.15.05.18-Y-000000 *	1
4	Bosch Rexroth coil D36 - CLASS H DIN 43650 ISO 4400 *	2
5	Connector DIN 43650 ISO 4400	2
6	M8x17 for tie rod	3
7	Ø 7,5 hole without counterbore for O-ring (P-T)	2
8	M8x15 thread for mounting	2

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue

Ordering code



H 4 1 0 6 A - - - - - - - - - - - - - - - -

Hydrover product

Product series
41 series - Plates for Bosch Rexroth ED bankable valves

Product ID

Manifold material
Aluminium

Relief valves adjustment type *
Screw = S

Relief valves adjustment pressure range *

1° stadio 25-120 bar, 2° stadio 25-120 bar	= 11
1° stadio 40-200 bar, 2° stadio 25-120 bar	= 21
1° stadio 200-350 bar, 2° stadio 25-120 bar	= 31
1° stadio 40-200 bar, 2° stadio 40-200 bar	= 22
1° stadio 200-350 bar, 2° stadio 40-200 bar	= 32
1° stadio 200-350 bar, 2° stadio 200-350 bar	= 33

Solenoid valves coil connection *
1 = DIN 43650
ISO 4400

Solenoid valves coil voltage *

OB =	12V DC
OC =	24V DC
OD =	48V DC
OU =	110V RAC
AH =	230V RAC

Pressure switch solenoid valve manual override *

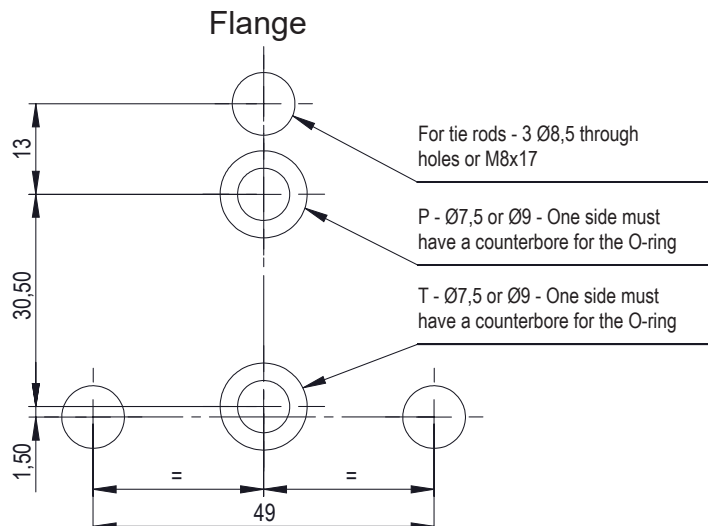
E0 =	Without
EV =	Screw

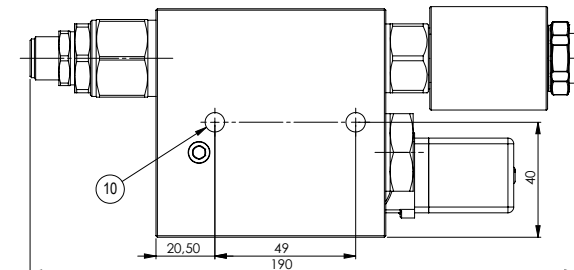
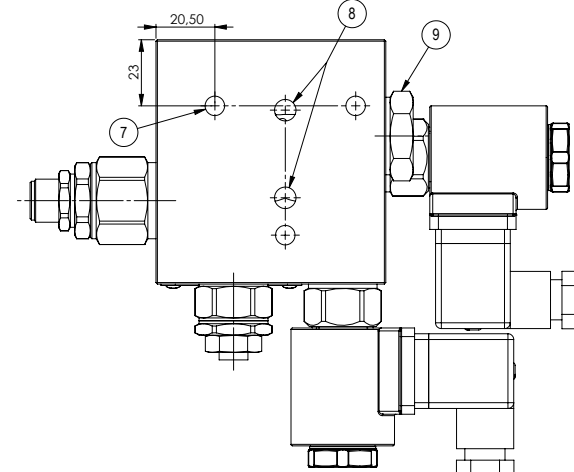
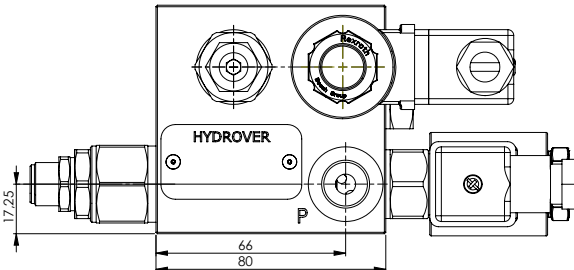
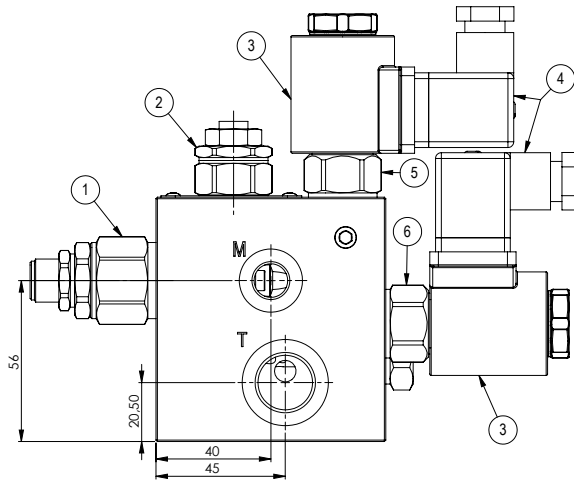
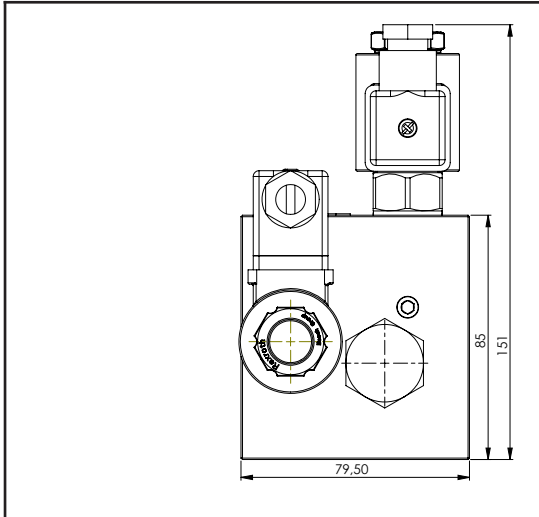
Bypass solenoid valve manual override *

E0 =	Without
EP =	Push
EG =	Push and twist

* Omit if not required. For example, to order the product without the bypass solenoid cartridge valve, omit the coil connection, coil voltage and manual override options: H4106A-S32-E0-OB1. The manifold will still be provided with the corresponding cavity. To inhibit a function, replace the related valve options with TL: eg H4106A-S32-TL-E0-OB1. In the cavity it will be mounted a long plug.

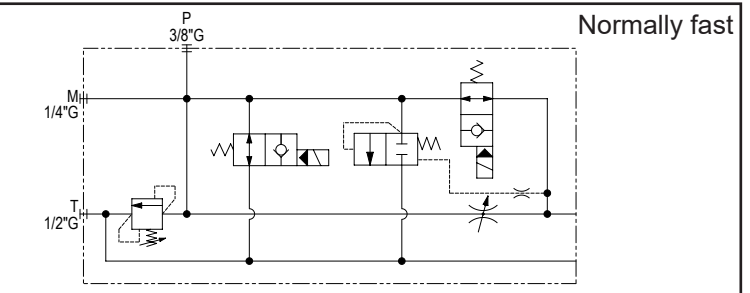
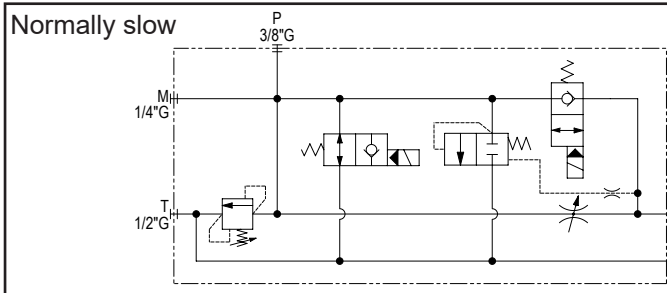
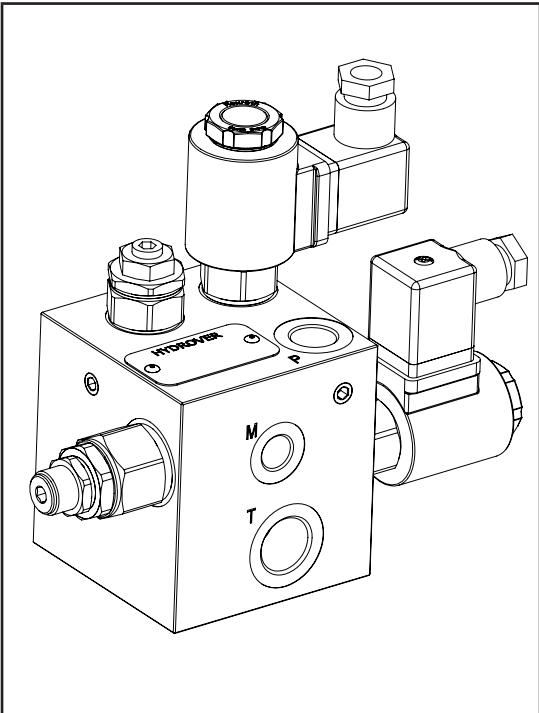
Valve	Cavity	Long plug code
Solenoid valve VEI-16-08A-NA OD.15.06.18-Y-000000 / VEI-16-08A-NC OD.15.05.18-Y-000000	CA-08A-2N	0489A2005600000
Pressure relief valve VMD1.025	VMD1.025	R-800-016





Dimensions in mm

Technical data	
Max. pressure	250 bar
Max. flow	40 lpm
Weight	2,4 Kg
Manifold material	Aluminium
M port	1/4" G
P port	3/8" G
T port	1/2" G



Ordering code

H	4	1	1	5	A	-	_	_	-	_	_	-	_	_	_
---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

Hydrover product
Product series

41 series - Plates for Bosch Rexroth ED bankable valves

Product ID
Manifold material

Aluminium

Relief valve adjustment type *

Screw

= S

Relief valve adjustment pressure range *

25-120 bar

= 1

40-200 bar

= 2

200-350 bar

= 3

Solenoid valves coil connection *

 1 = DIN 43650
ISO 4400

Solenoid valves coil voltage *

 OB = 12V DC
 OC = 24V DC
 OD = 48V DC
 OU = 110V RAC
 AH = 230V RAC

Bypass solenoid valve manual override *

 E0 = Without
 EP = Push
 EG = Push and twist

Slow or fast in normal position *

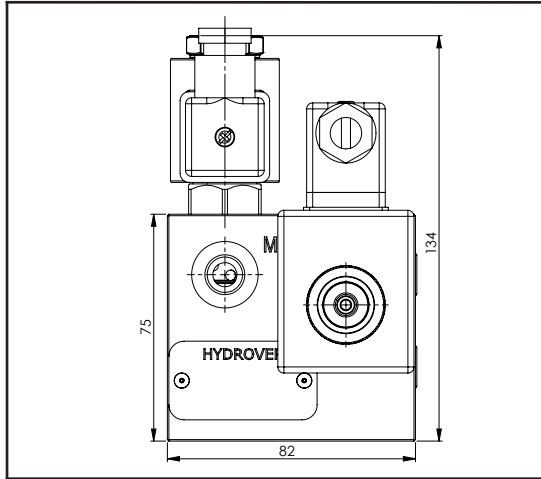
 NL = Normally slow
 NR = Normally fast

* Omit if not required. For example, to order the product without the fast slow solenoid cartridge valve, omit the slow or fast in normal position option: H4115A-S2-E0-OC1. The manifold will still be provided with the corresponding cavity. To inhibit a function, replace the related valve options with TL: eg H4115A-S2-TL-E0-OC1. In the cavity it will be mounted a long plug.

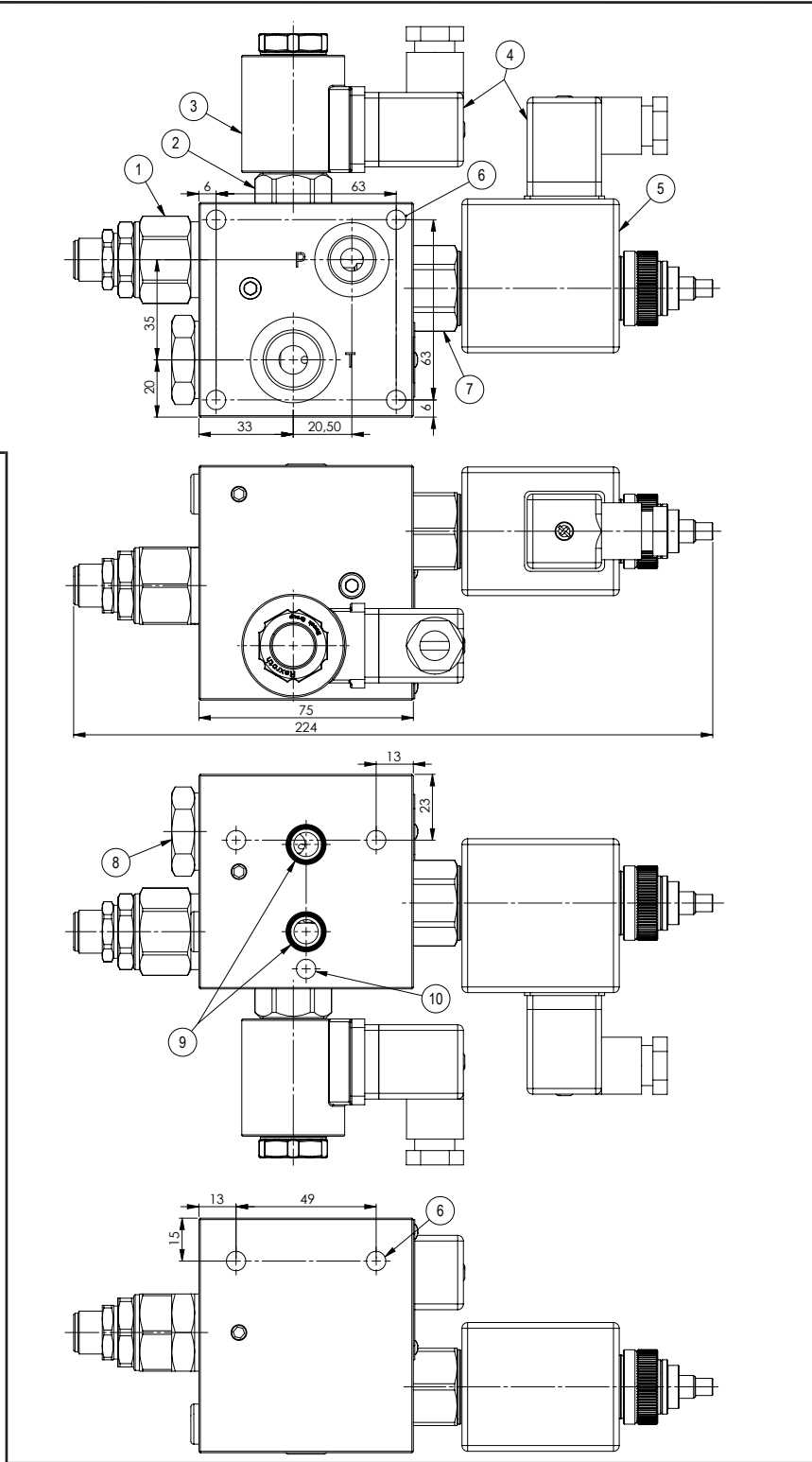
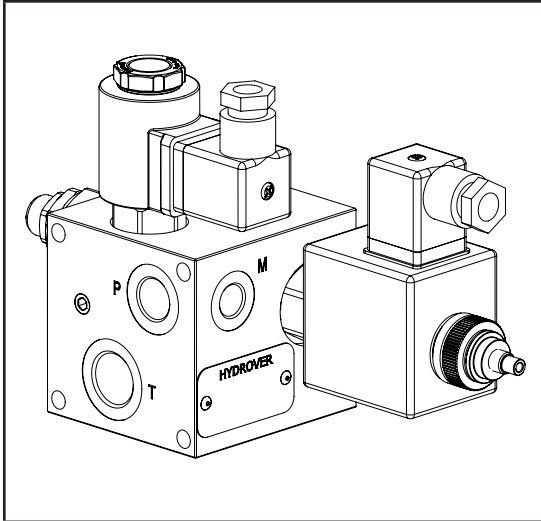
Valve	Cavity	Long plug code
Solenoid valve VEI-16-08A-NA OD.15.05.18-Y-000000 or VEI-16-08A-NC OD.15.06.18-Y-000000	CA-08A-2N	0489A2005600000
Pressure relief valve VMD1.040	CA-10A-2N	0489A2008500000

N°	Description	Q.ty
1	Bosch Rexroth relief valve VMD1.040 *	1
2	Bosch Rexroth bidirectional flow restrictor OD.21.01.03.56 * depicted with screw adjustment	1
3	Bosch Rexroth coil D36 - CLASS H DIN 43650 ISO 4400 *	2
4	Connector DIN 43650 ISO 4400	2
5	Bosch Rexroth solenoid valve for fast slow function VEI-16-08A-NC OD.15.05.18-Y-000000 (normally slow) o VEI-16-08A-NA OD.15.06.18-Y-000000 (normally fast) depicted without manual override *	1
6	Bosch Rexroth bypass solenoid valve VEI-16 OD.15.06.18-Y-000000 *	1
7	M8x17 for tie rod	3
8	Ø 7,5 hole without counterbore for O-ring (P-T)	2
9	Pressure compensator	1
10	M8x15 thread for mounting	2

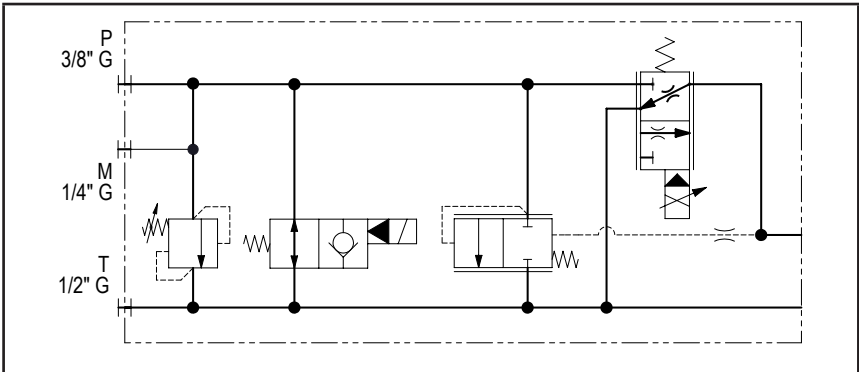
* for complete technical information, click on the blue link or go to the components section at the end of the catalogue



Technical data	
Max. pressure	250 bar
Max. flow	50 lpm
Max. regulated flow	40 lpm
Weight	2,1 Kg
Manifold material	Aluminium
M port	1/4" G
P port	3/8" G
T port	1/2" G



Dimensions in mm



Ordering code

--

H 4 1 2 1 A _ _ _ - _ _ - _ _ - _ _ - _ _

Hydrover product

Product series

41 series - Plates for Bosch Rexroth ED bankable valves

Product ID

Manifold material

Aluminium

Compensator spring

5,5 bar (standard) = 6
12,5 bar = 1
19 bar = 2

Relief valve

adjustment type *

Screw = S

Relief valve adjustment pressure range *

25-120 bar = 1
40-200 bar = 2
200-350 bar = 3

Bypass solenoid valve manual override *

Without = E0
Push = EP
Push and twist = EG

Solenoid valves coil connection *

1 = DIN 43650
ISO 4400

Bypass solenoid valve coil voltage *

OB = 12V DC
OC = 24V DC
OD = 48V DC
OU = 110V RAC
AH = 230V RAC

Proportional solenoid valve max. flow *

1 = 20 lpm
2 = 30 lpm
3 = 40 lpm

To evaluate the max. flow refer to [VEP-5A-2Q-09 / OD.92.05.77-Y-Z](#) proportional solenoid valve catalogue and to the compensator spring.

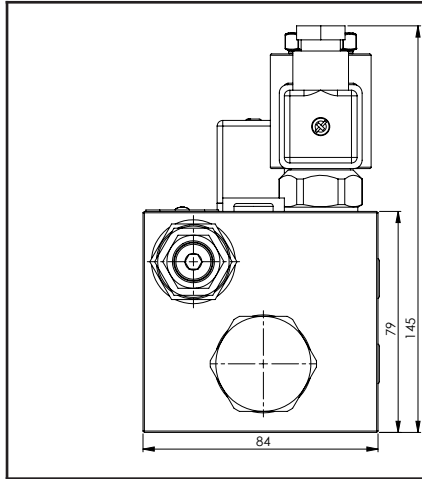
Proportional solenoid valve manual override *

E0 = Without
EV = Screw

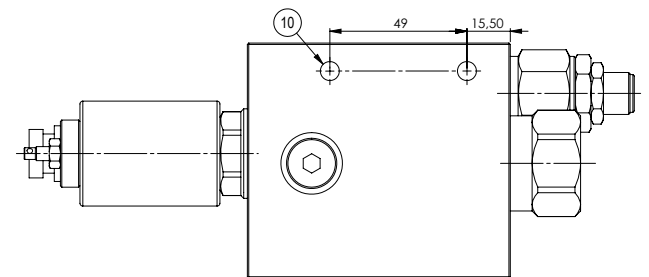
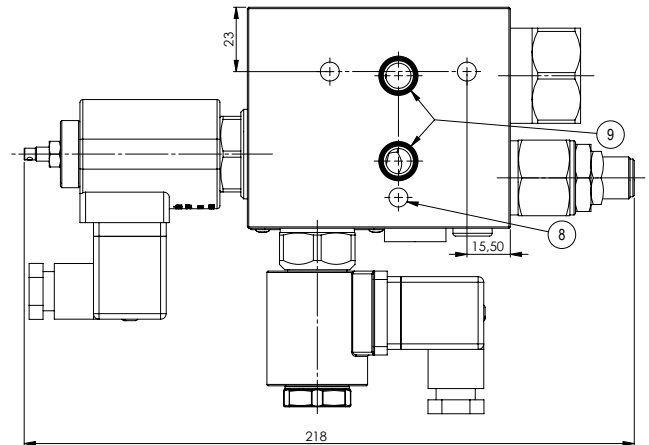
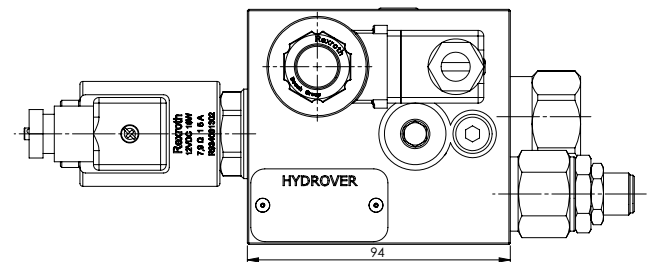
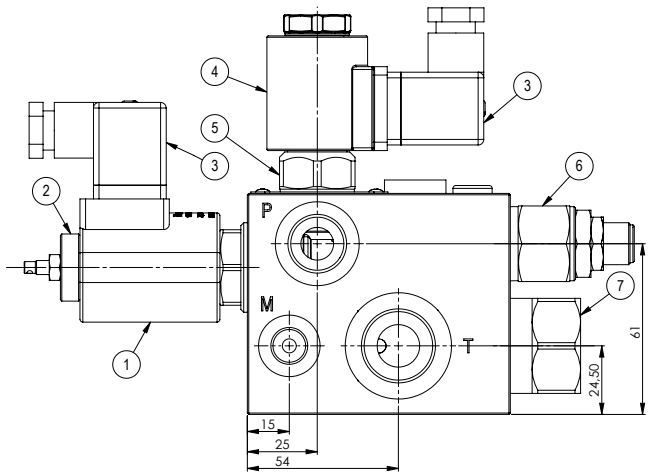
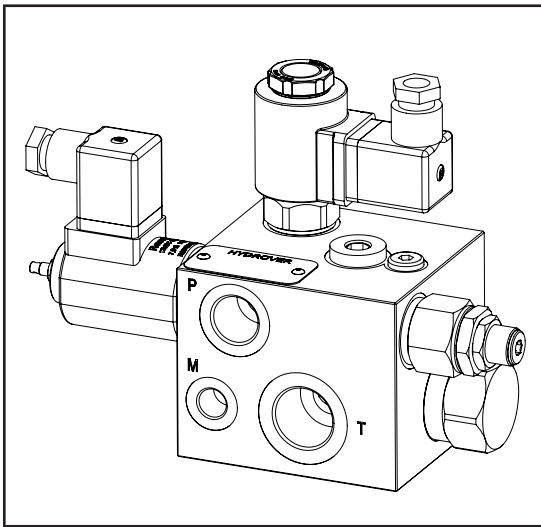
* Omit if not required.

N°	Description	Q.ty
1	Bosch Rexroth relief valve VMD1.040 **	1
2	Bosch Rexroth bypass solenoid valve VEI-16 OD.15.06.18-Y-000000 **	1
3	Bosch Rexroth coil D36 - CLASS H DIN 43650 ISO 4400 **	1
4	Connector DIN 43650 ISO 4400	2
5	Bosch Rexroth coil S5-356 - CLASS H DIN 43650 ISO 4400 - 12V DC **	1
6	M8x15 thread for mounting	6
7	Bosch Rexroth proportional solenoid valve VEP-5A-2Q-09 / OD.92.05.77-Y-Z **	1
8	Compensator	1
9	Ø 9 hole with OR 2043 i. Ø 10,82 cross section 1,78 (P-T)	2
10	M8x17 for tie rod	3

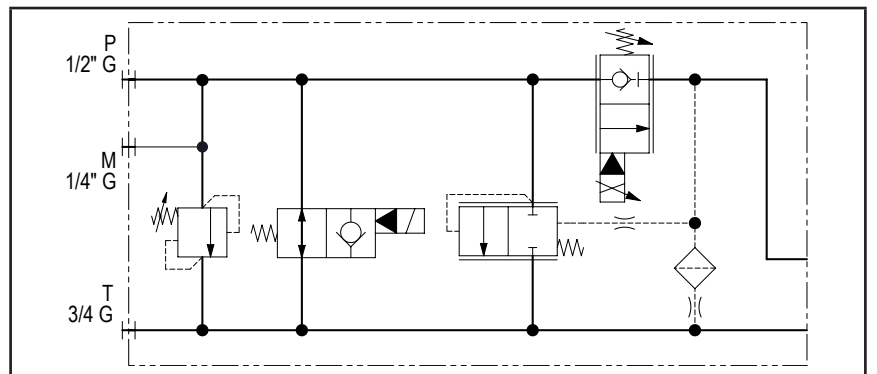
** for complete technical information, click on the blue link or go to the components section at the end of the catalogue



Technical data	
Max. pressure	250 bar
Max. flow	60 lpm
Weight	2,8 Kg
Manifold material	Aluminium
M port	1/4" G
P port	1/2" G
T port	3/4" G



Dimensions in mm



Ordering code

H 4 1 2 2 A - - - - -

Hydrover product

Product series

41 series - Plates for Bosch Rexroth ED bankable valves

Product ID

Manifold material

Aluminium

Relief valve adjustment type *

Screw = S

Relief valve adjustment pressure range *

10-60 bar = 0
 40-110 bar = 1
 110-220 bar = 2
 220-260 bar = 3

Solenoid valves coil connection *

1 = DIN 43650
 ISO 4400

Solenoid valves coil voltage *

OB = 12V DC
 OC = 24V DC
 OD = 48V DC
 OU = 110V RAC
 AH = 230V RAC

Bypass solenoid valve manual override *

E0 = Without
 EP = Push
 EG = Push and twist

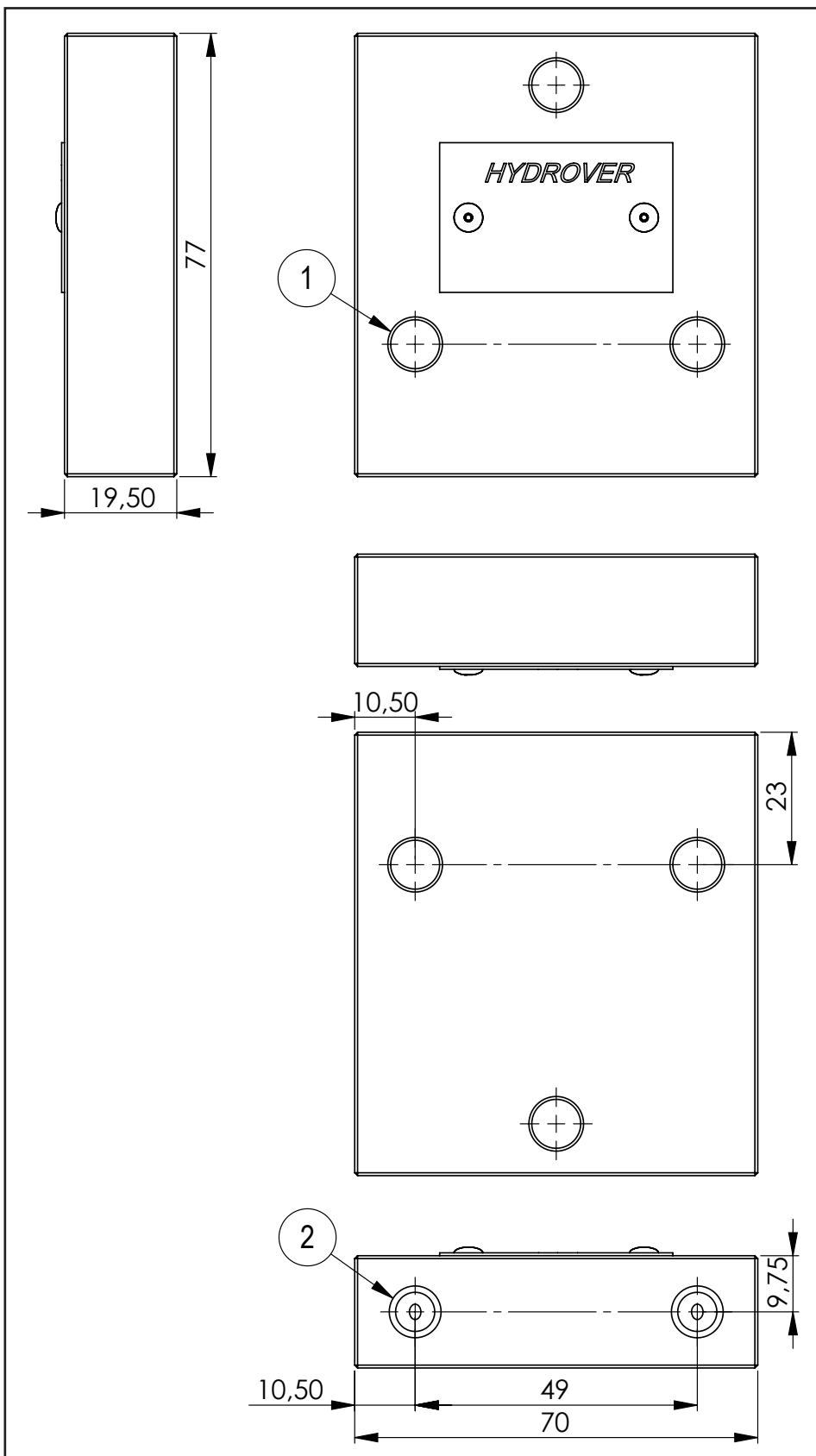
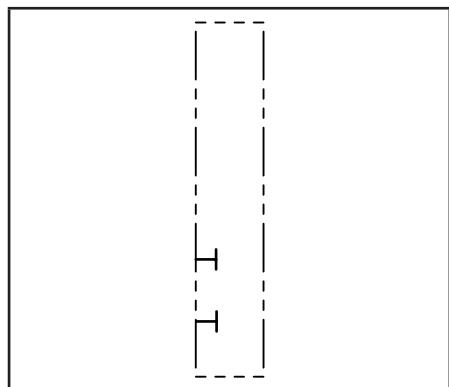
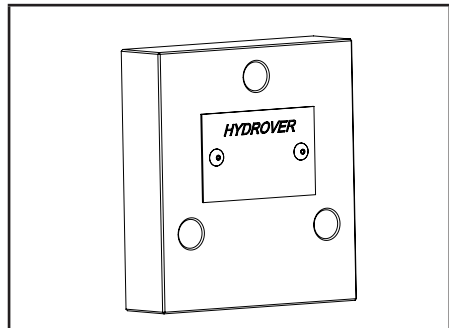
* Omit if not required. For example, to order the product without the relief valve, omit the relief valve adjustment type and pressure range options: H4122A-E0-OB1. The manifold will still be provided with the corresponding cavity. To inhibit a function, replace the related valve options with TL: eg H4122A-TL-E0-OB1. In the cavity it will be mounted a long plug.

Valve	Cavity	Long plug code
Solenoid valve VEI-16-10A-NA OD.15.06.36-Y-000000	CA-10A-2N	0489A2008500000
Pressure relief valve VMD1.070	CA-10A-2N	0489A2008500000

N°	Description	Q.ty
1	Bosch Rexroth coil R7 - CLASS H DIN 43650 ISO 4400 - Only 12V DC *	1
2	Bosch Rexroth proportional solenoid valve VEPN-12A OD.95.06.89.72.00.00 *	1
3	Connector DIN 43650 ISO 4400	2
4	Bosch Rexroth coil D36 - CLASS H DIN 43650 ISO 4400 *	1
5	Bosch Rexroth bypass solenoid valve VEI-16-10A-NA OD.15.06.36-Y-000000 *	1
6	Bosch Rexroth relief valve VMD1.070 *	1
7	Compensator	1
8	M8x17 for tie rod	3
9	Ø 9 hole with OR 2043 i. Ø 10,82 cross section 1,78 (P-T)	2
10	M8x15 thread for mounting	2

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue

Technical data	
Max. pressure	250 bar
Weight	0,3 Kg
Manifold material	Aluminium



N°	Description	Q.ty
1	Ø 8,5 through hole for tie rod	3
2	M8x15 thread for mounting	2

H4114

Ordering code

H	4	1	1	4	A
---	---	---	---	---	---

Hydrover product

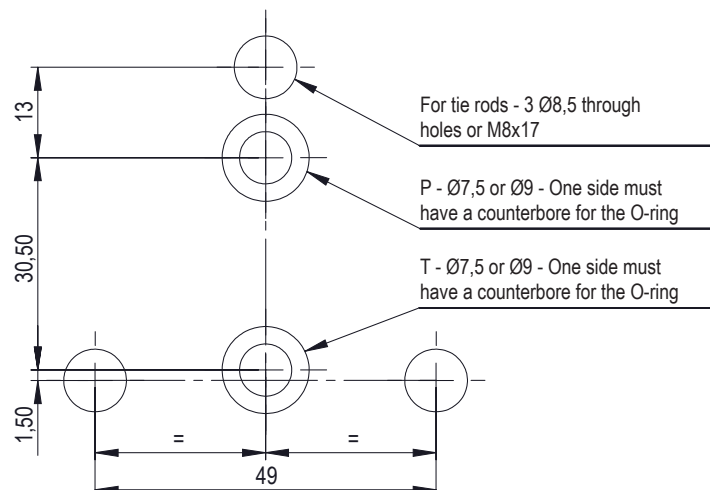
Manifold material
Aluminium

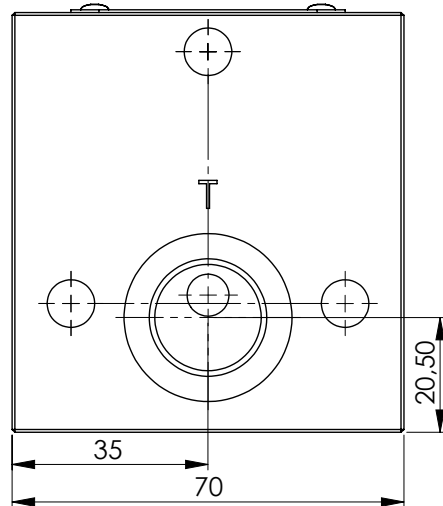
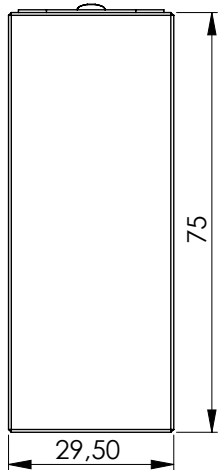
Product series

41 series - Plates for Bosch Rexroth ED bankable valves

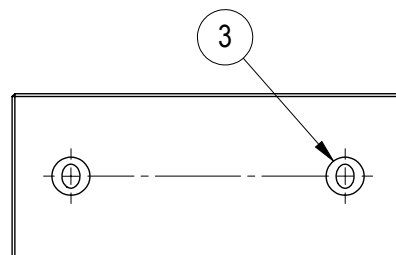
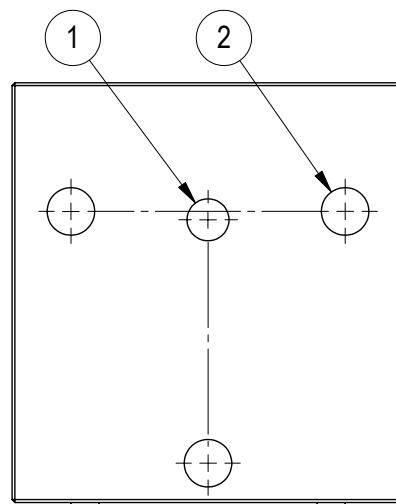
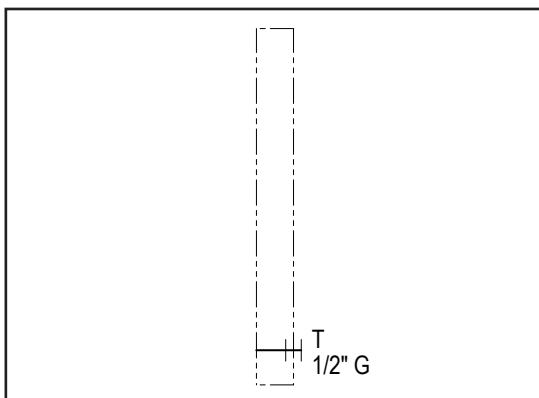
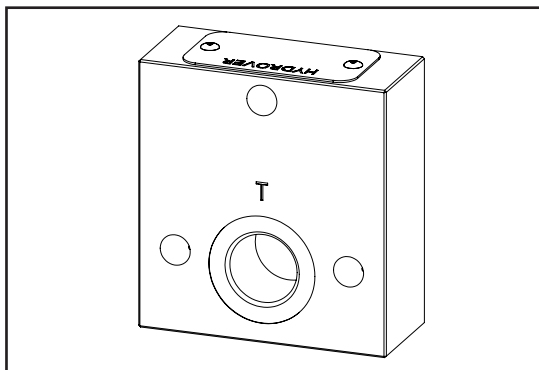
Product ID

Flange





Technical data	
Max. pressure	250 bar
Weight	0,4 Kg
Manifold material	Aluminium
T port	1/2" G



Dimensions in mm

N°	Description	Q.ty
1	T Ø 9 with OR 2043 i. Ø 10,82 cross section 1,78	1
2	Ø 8,5 through hole for tie rod	3
3	M8x15 thread for mounting	2



Ordering code

H	4	1	2	3	A
---	---	---	---	---	---

Hydrover product

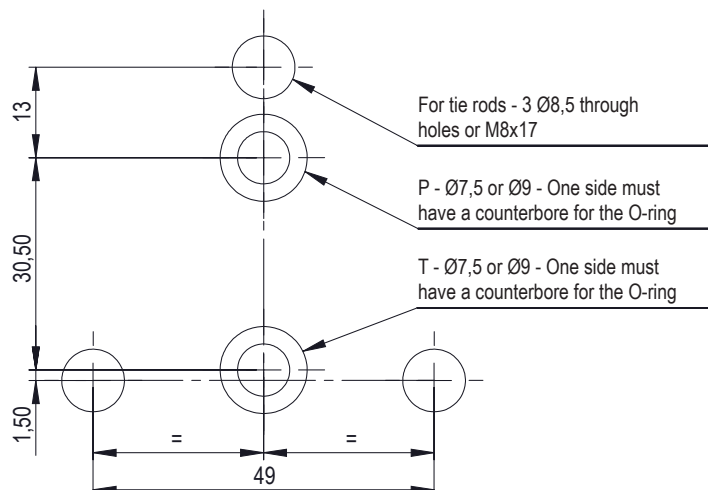
Manifold material
Aluminium

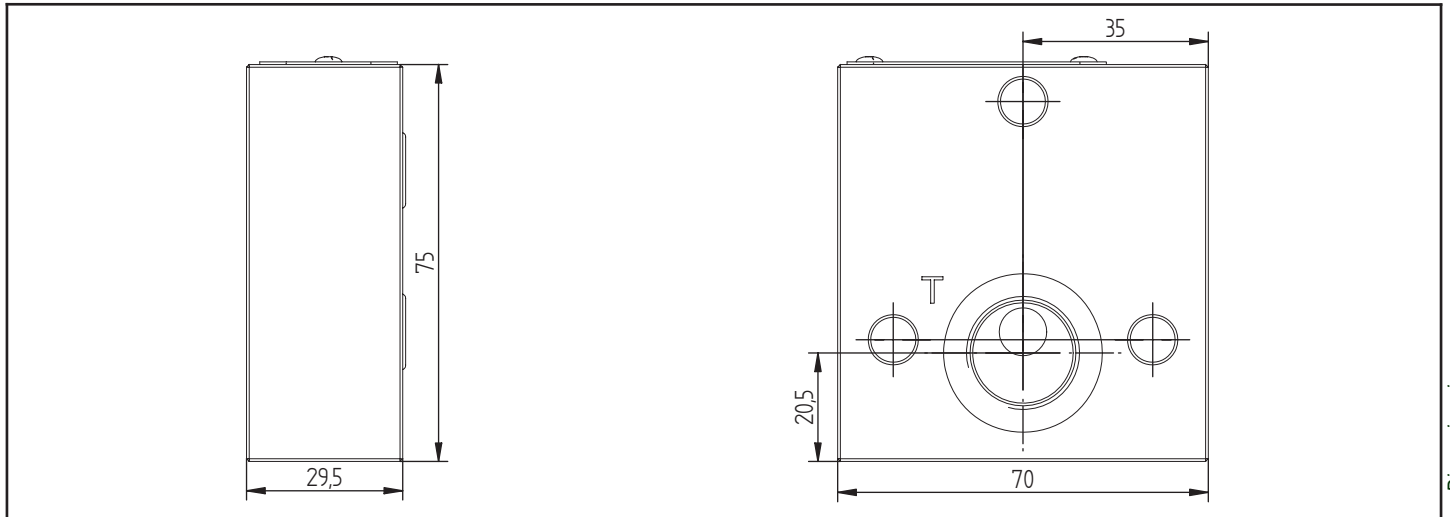
Product series

41 series - Plates for Bosch Rexroth ED bankable valves

Product ID

Flange

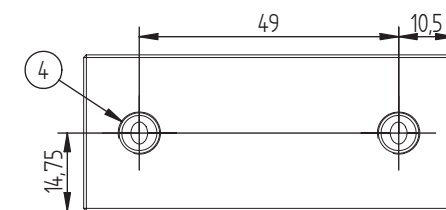
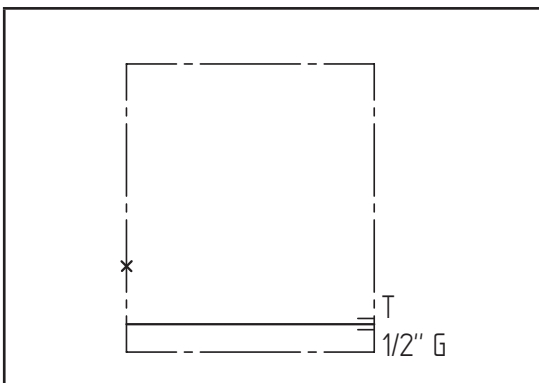
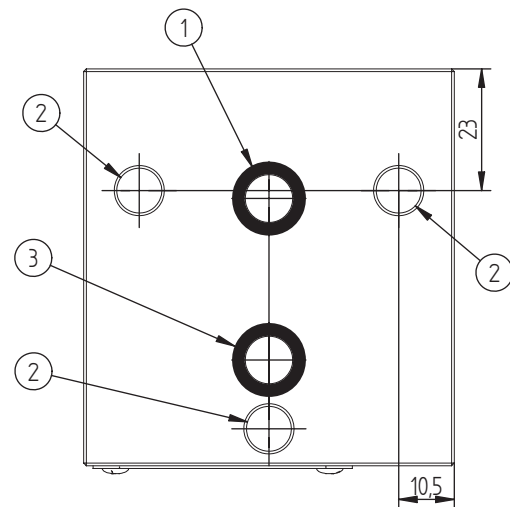
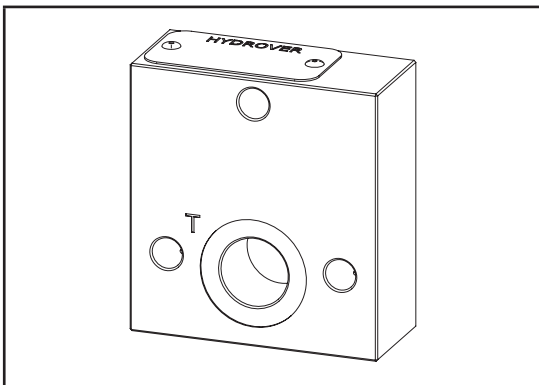




Dimensions in mm

Technical data	
Max. pressure	250 bar
Weight	0,4 Kg
Manifold material	Aluminium
T port	1/2" G

Max. pressure	250 bar
Weight	0,4 Kg
Manifold material	Aluminium
T port	1/2" G



N°	Description	Q.ty
1	T Ø 9 with OR 2043 i. Ø 10,82 cross section 1,78	1
2	Ø 8,5 through hole for tie rod	3
3	Closed P with OR 2043 i. Ø 10,82 cross section 1,78	1
4	M8x15 thread for mounting	2



Ordering code

H	4	1	0	2	A
---	---	---	---	---	---

Hydrover product

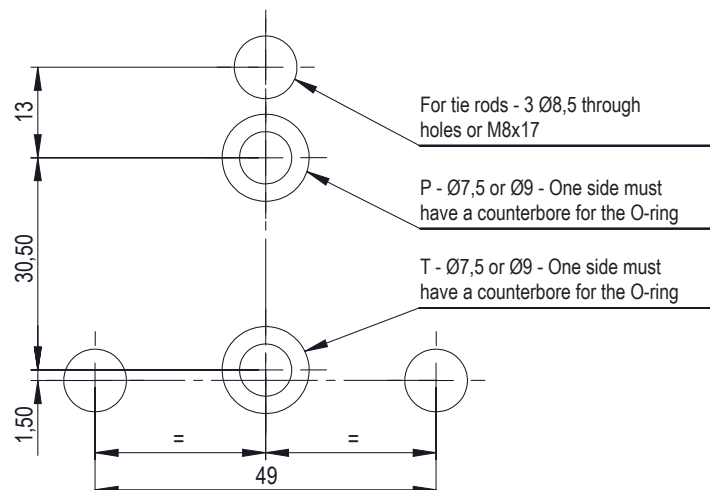
Manifold material
Aluminium

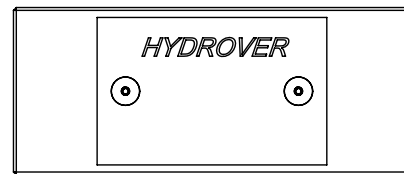
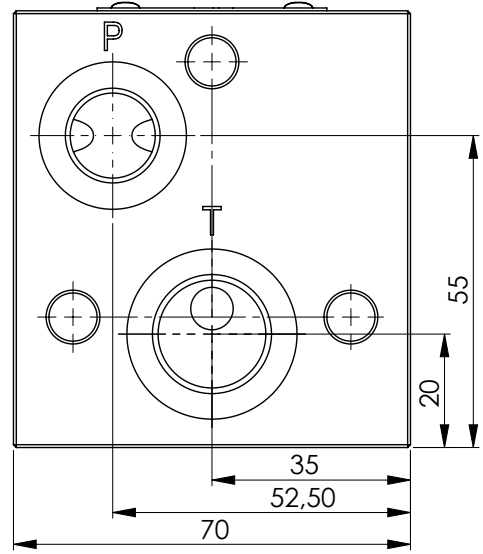
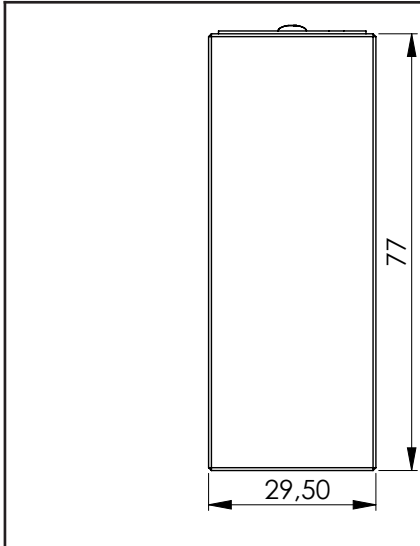
Product series

41 series - Plates for Bosch Rexroth ED bankable valves

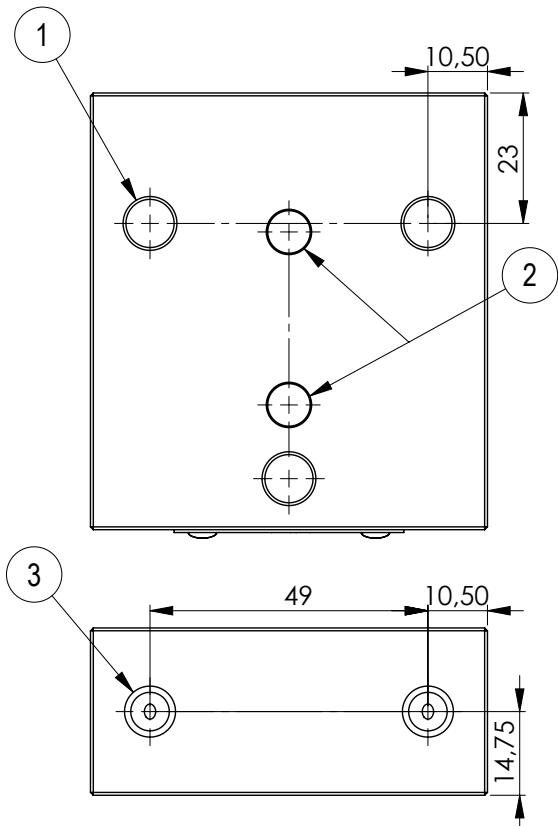
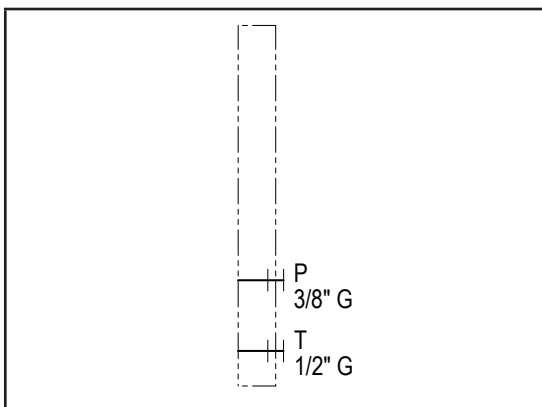
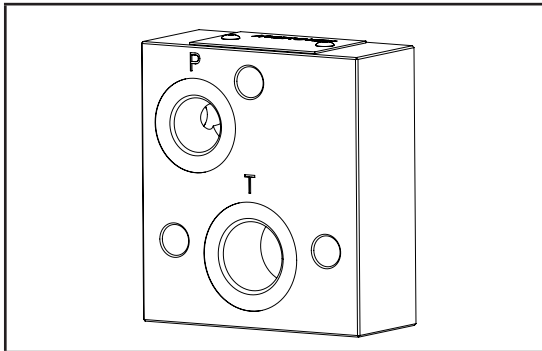
Product ID

Flange





Technical data	
Max. pressure	250 bar
Weight	0,4 Kg
Manifold material	Aluminium
P port	3/8" G
T port	1/2" G



Dimensions in mm

N°	Description	Q.ty
1	Ø 8,5 through hole for tie rod	3
2	Ø 7,5 hole without counterbore for O-ring (P-T)	2
3	M8x15 thread for mounting	2

Ordering code

H	4	1	1	6	A
---	---	---	---	---	---

Hydrover product

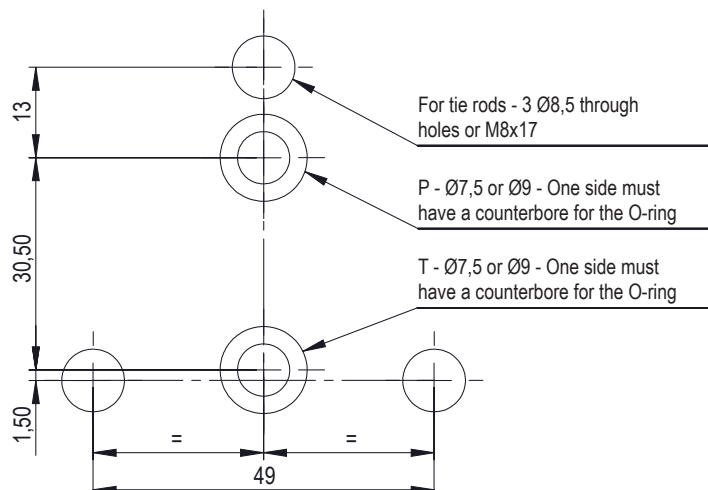
Manifold material
Aluminium

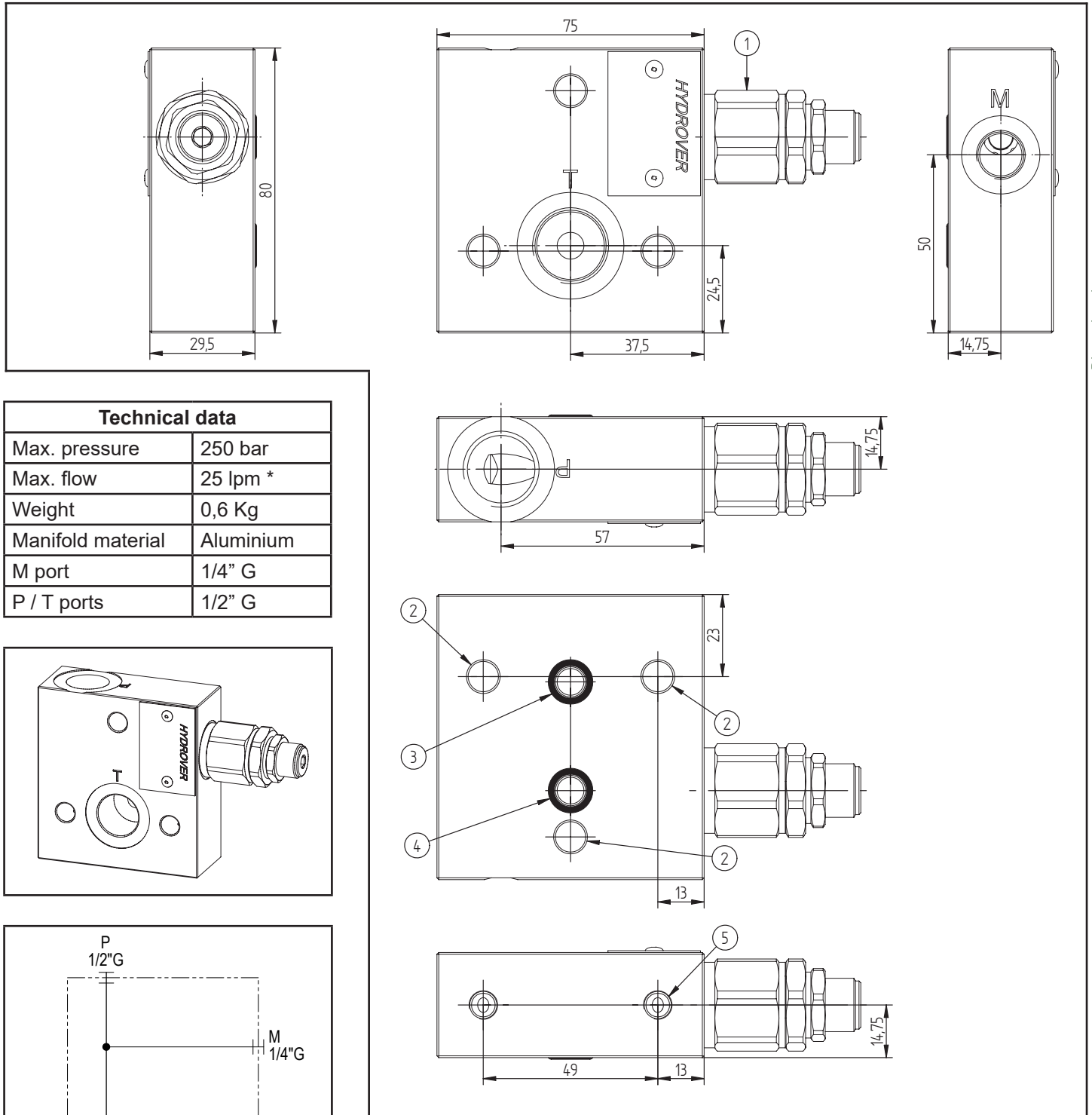
Product series

41 series - Plates for Bosch Rexroth ED bankable valves

Product ID

Flange

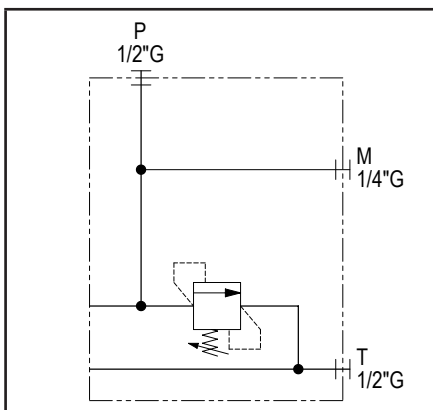
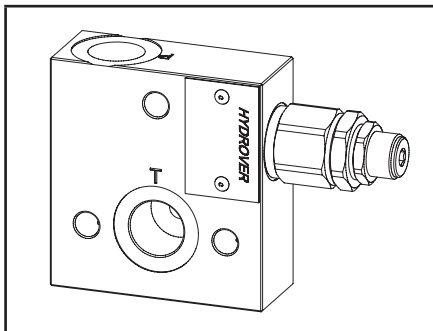




Dimensions in mm

Technical data

Max. pressure	250 bar
Max. flow	25 lpm *
Weight	0,6 Kg
Manifold material	Aluminium
M port	1/4" G
P / T ports	1/2" G



N°	Description	Q.ty
1	Bosch Rexroth relief valve VMD1.025 *	1
2	Ø 8,5 through hole for tie rod	3
3	P Ø 7,5 con OR 2037 i. Ø 9,25 cross section 1,78	1
4	T Ø 7,5 con OR 2037 i. Ø 9,25 cross section 1,78	1
5	M8x15 thread for mounting	2

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue

Ordering code

H 4 1 0 5 A - _ _

Hydrover product

Product series

41 series - Plates for Bosch Rexroth ED bankable valves

Product ID

Manifold material

Aluminium

Relief valve adjustment pressure range *

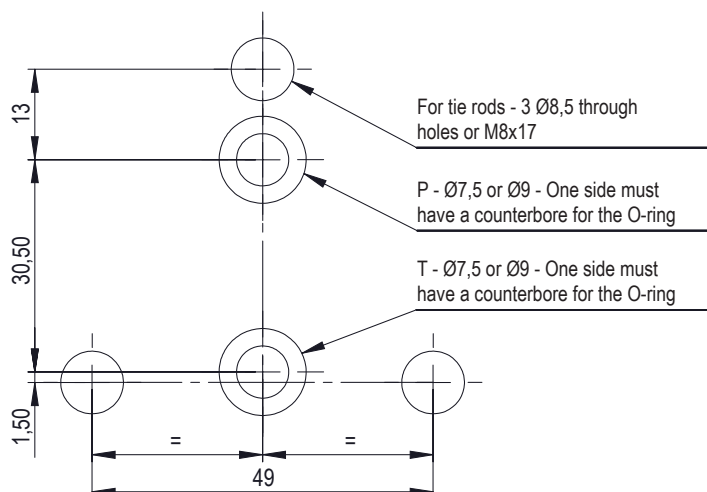
- 1= 25-120 bar
- 2= 40-200 bar
- 3= 200-350 bar

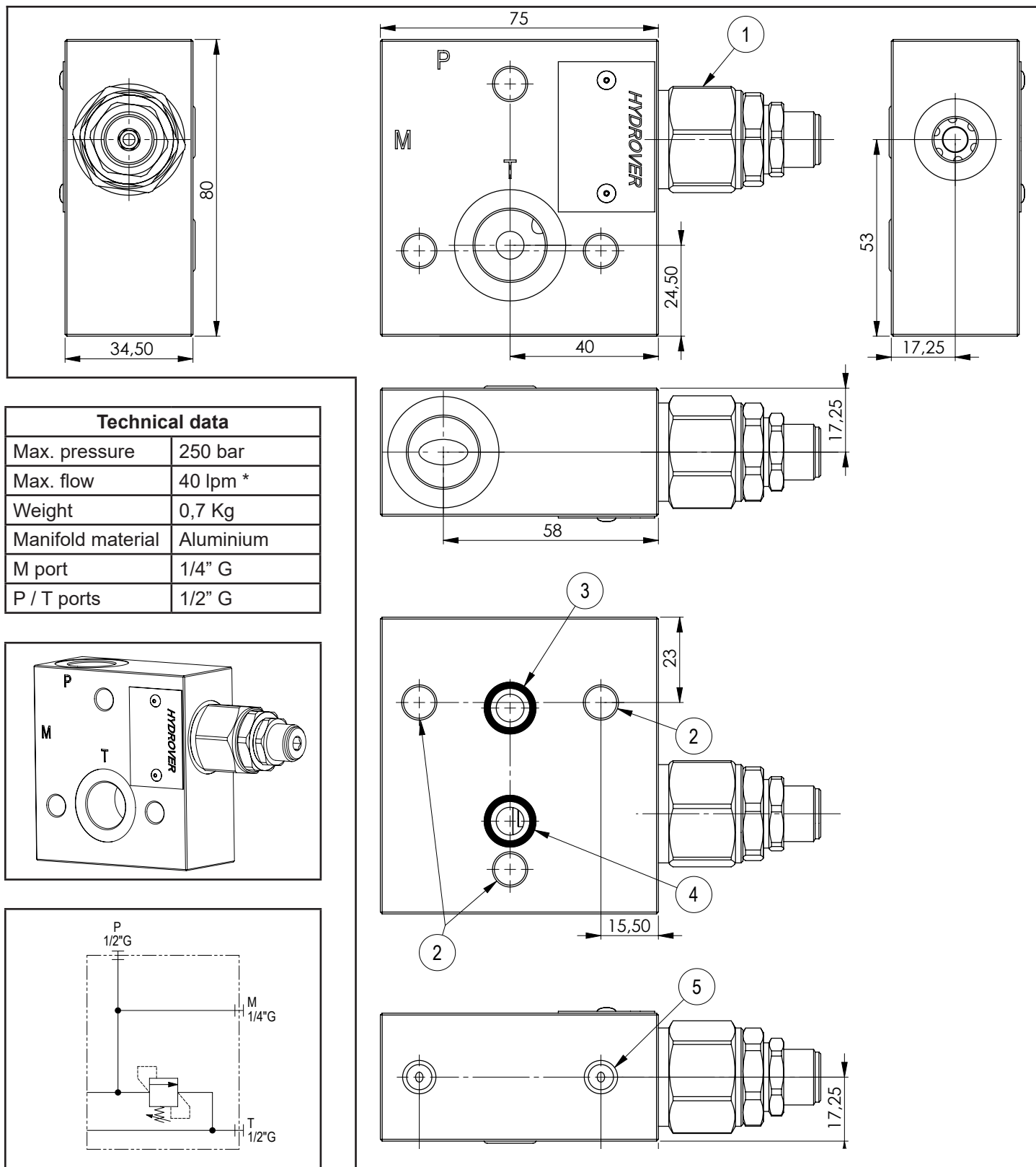
Relief valve adjustment type *

S = Screw

* Omit if not required. To order the product without the pressure relief cartridge valve, omit the adjustment type and pressure range options: H4105A.
The manifold will still be provided with the corresponding cavity.

Flange

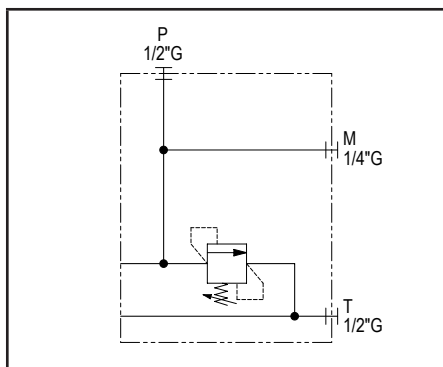
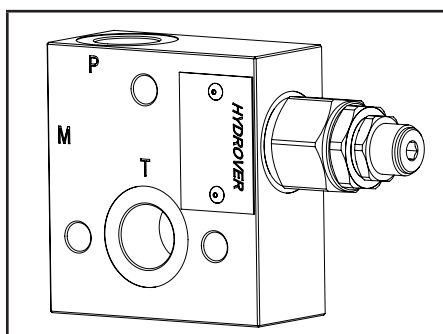




Dimensions in mm

Technical data

Max. pressure	250 bar
Max. flow	40 lpm *
Weight	0,7 Kg
Manifold material	Aluminium
M port	1/4" G
P / T ports	1/2" G



N°	Description	Q.ty
1	Bosch Rexroth relief valve VMD1.040 *	1
2	Ø 8,5 through hole for tie rod	3
3	Ø 9 P with OR 2043 i. Ø 10,82 cross section 1,78	1
4	Ø 9 T with OR 2043 i. Ø 10,82 cross section 1,78	1
5	M8x15 thread for mounting	2

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue



Ordering code

H 4 1 1 7 A - _ _

Hydrover product

Product series

41 series - Plates for Bosch Rexroth ED bankable valves

Product ID

Manifold material

Aluminium

Relief valve adjustment pressure range *

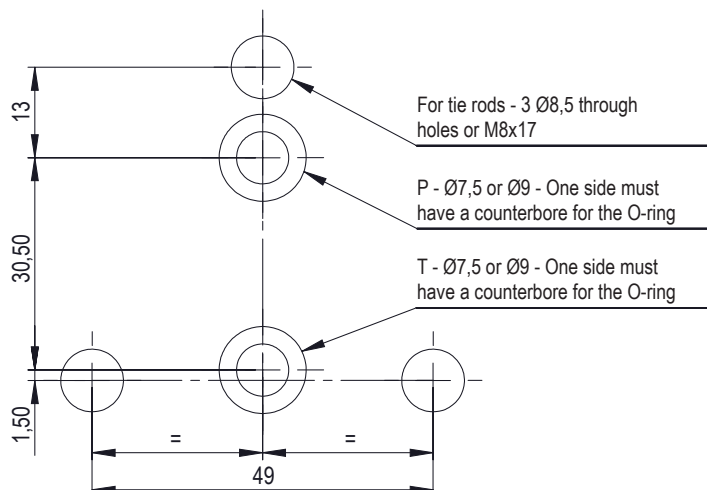
- 1 = 25-120 bar
- 2 = 40-200 bar
- 3 = 200-350 bar

Relief valve adjustment type *

S = Screw

* Omit if not required. To order the product without the pressure relief cartridge valve, omit the adjustment type and pressure range options: H4117A.
The manifold will still be provided with the corresponding cavity.

Flange



Ordering code for assemblies with 1 or 2 elements

H **K** **V** **M** **8** **X** _ _ _ - **3**

Hydrover product

Product type

Kit

Kit type

Screw kit

Thread

M8

Screw quantity

3

Screw length for elements quantity *

1 element

2 elements

80 =

125 =

Dimensions in mm

* For assemblies with 29,5 mm width closing plates

Ordering code for assemblies with 3 or 9 elements

H **K** **T** **M** **8** **X** _ _ _ **D** **S** - **3**

Hydrover product

Product type

Kit

Kit type

Tie rods

= T

Thread

M8

Tie rods quantity

3

Nut type

Standard

Screw length for elements quantity *

3 elements

4 elements

5 elements

6 elements

7 elements

8 elements

9 elements

199 =

245 =

291 =

337 =

383 =

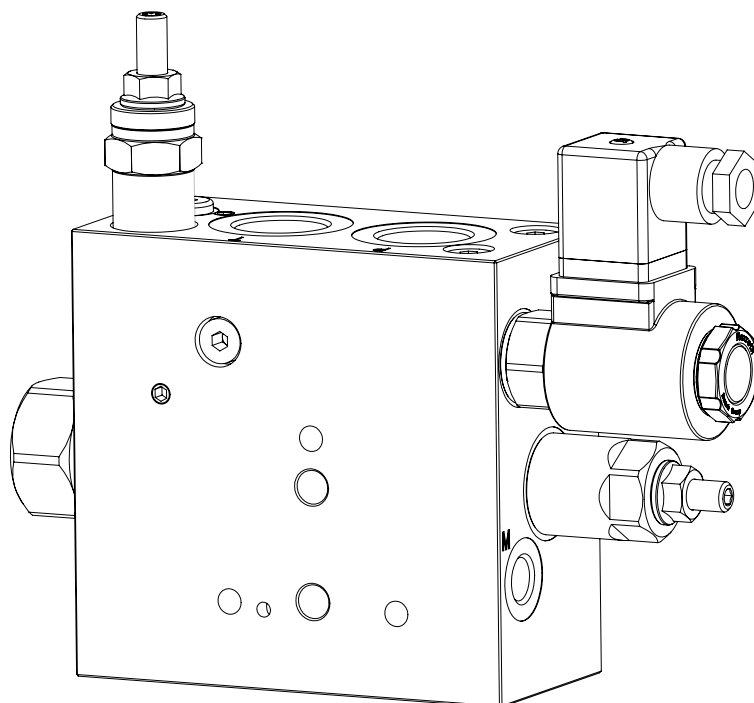
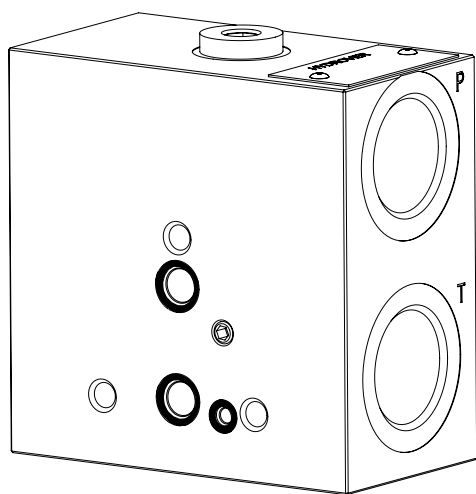
429 =

475 =

* For assemblies with 29,5 mm width closing plates

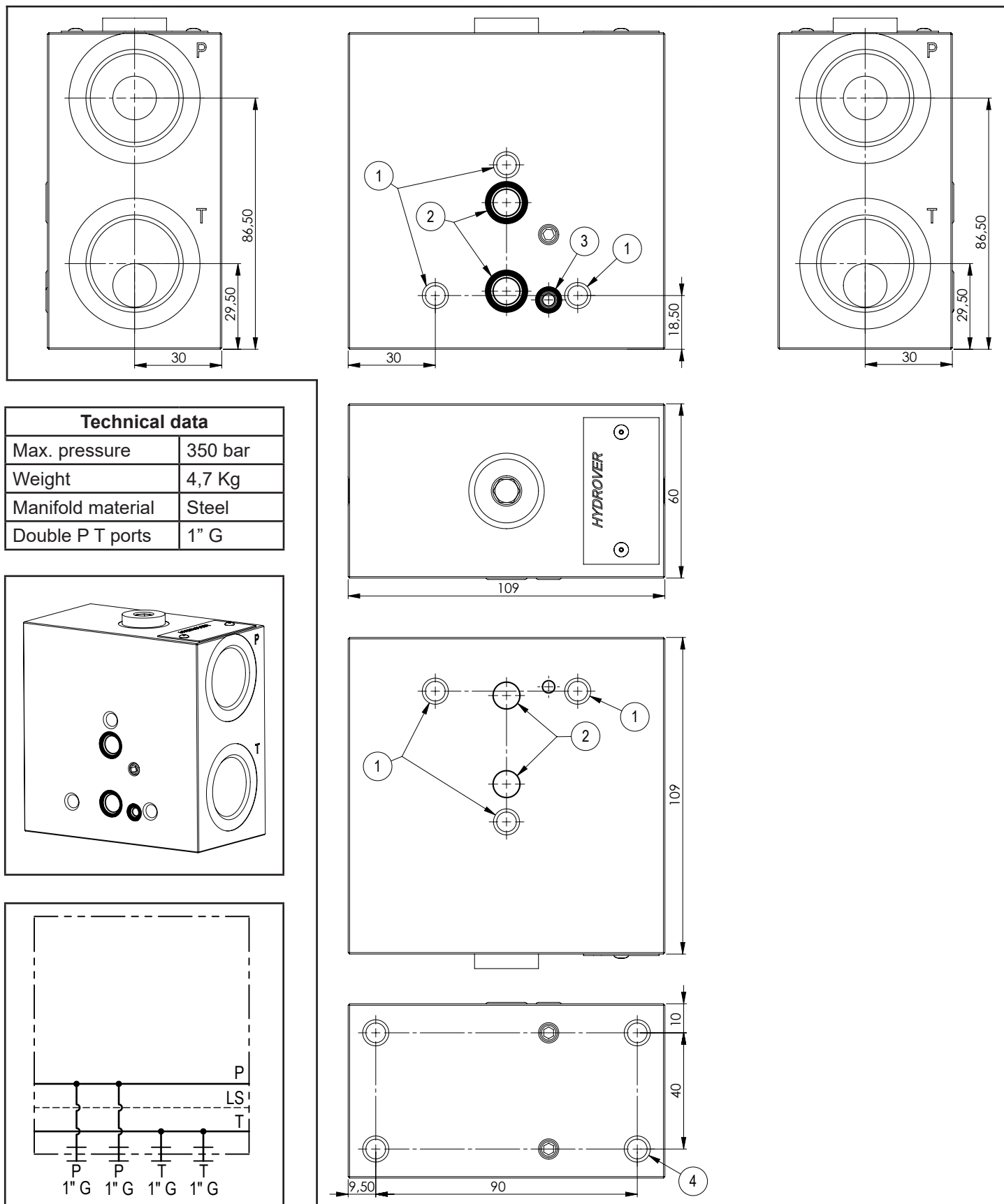
42 SERIES

Load sensing plates for Bosch Rexroth ED bankable valves

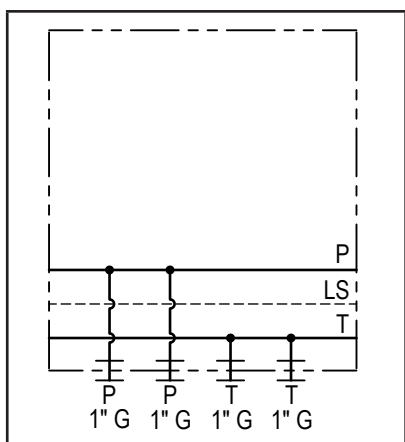
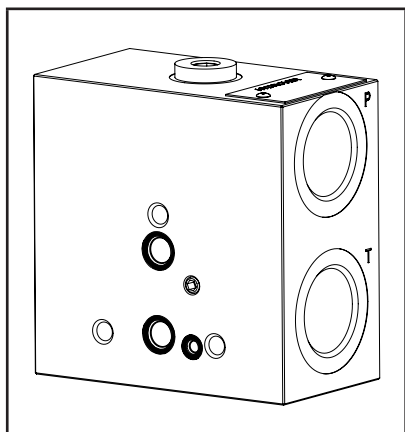


Intermediate load sensing inlet ED plate / dual side P-T ports 1" G **H4201**

Dimensions in mm



Technical data	
Max. pressure	350 bar
Weight	4,7 Kg
Manifold material	Steel
Double P T ports	1" G



N°	Description	Q.ty
1	M8x17 for tie rod	6
2	Ø 9 through hole with counterbore on one side for OR 2043 i. Ø 5,28 cross section 1,78 (P-T)	2
3	LS through hole with counterbore on one side for OR 2021 i. Ø 10,82 cross section 1,78	1
4	M8x15 thread for mounting	4

Ordering code

H	4	2	0	1	S
---	---	---	---	---	---

Hydrover product

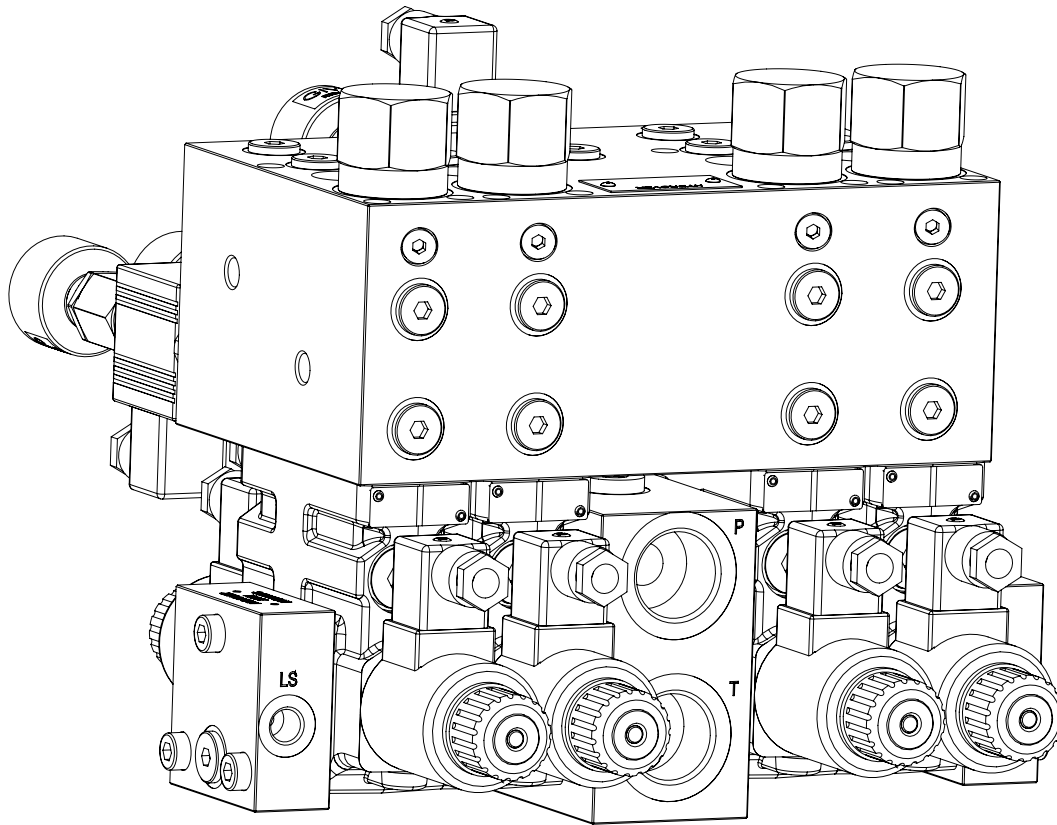
Manifold material
Steel

Product series

42 series - Load sensing plates for Bosch Rexroth ED bankable valves

Product ID

Assembly example



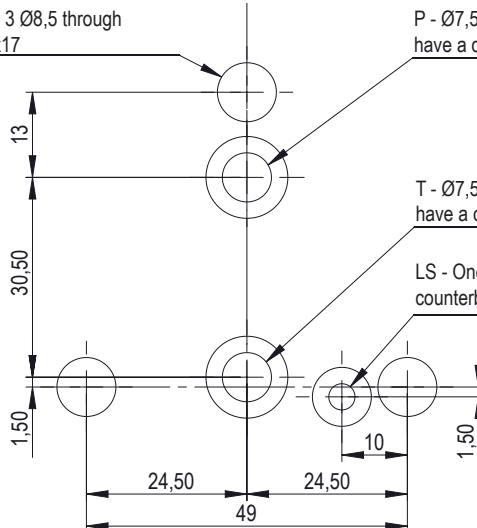
Flange

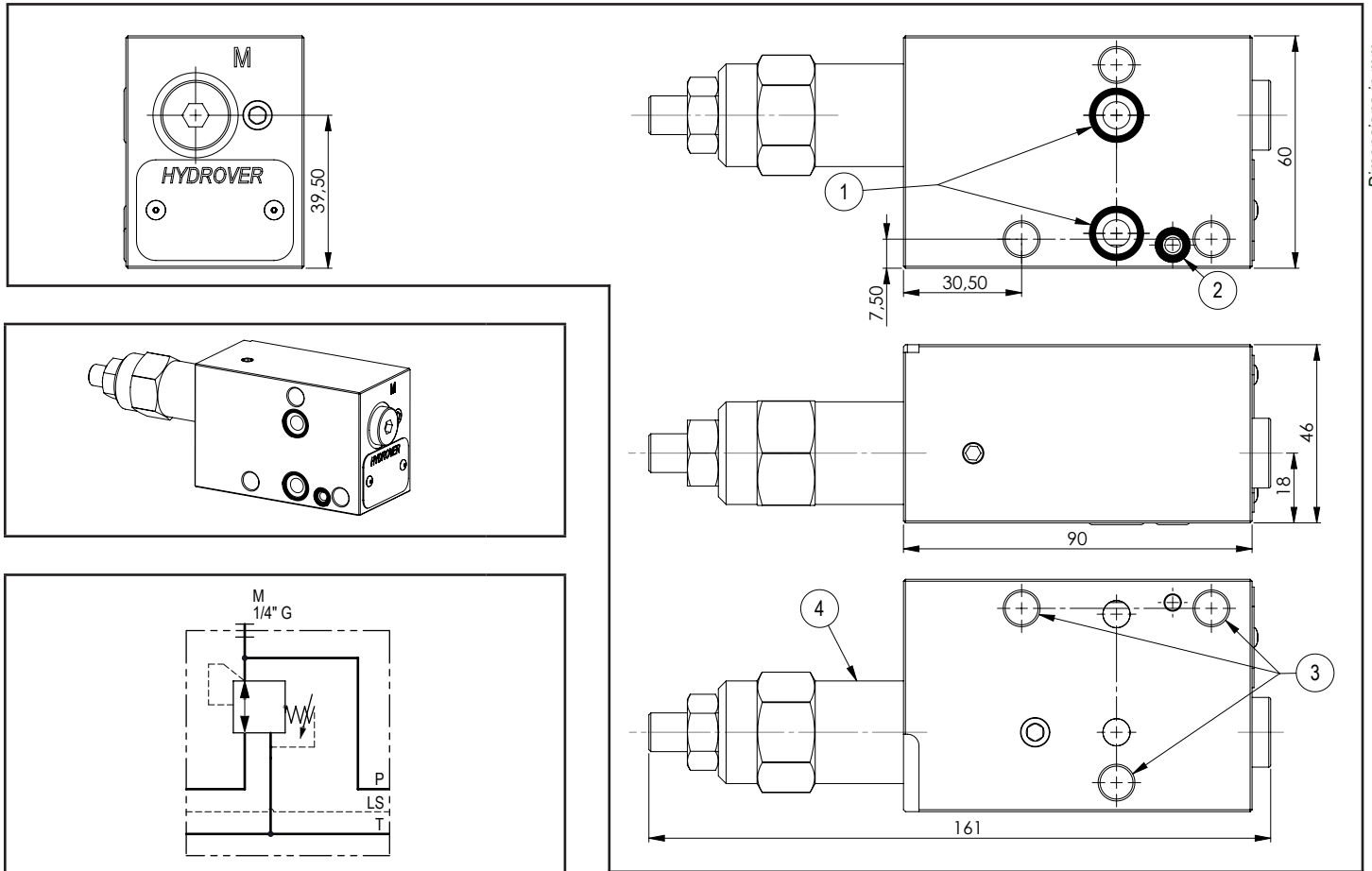
For tie rods - 3 Ø8,5 through holes or M8x17

P - Ø7,5 or Ø9 - One side must have a counterbore for the O-ring

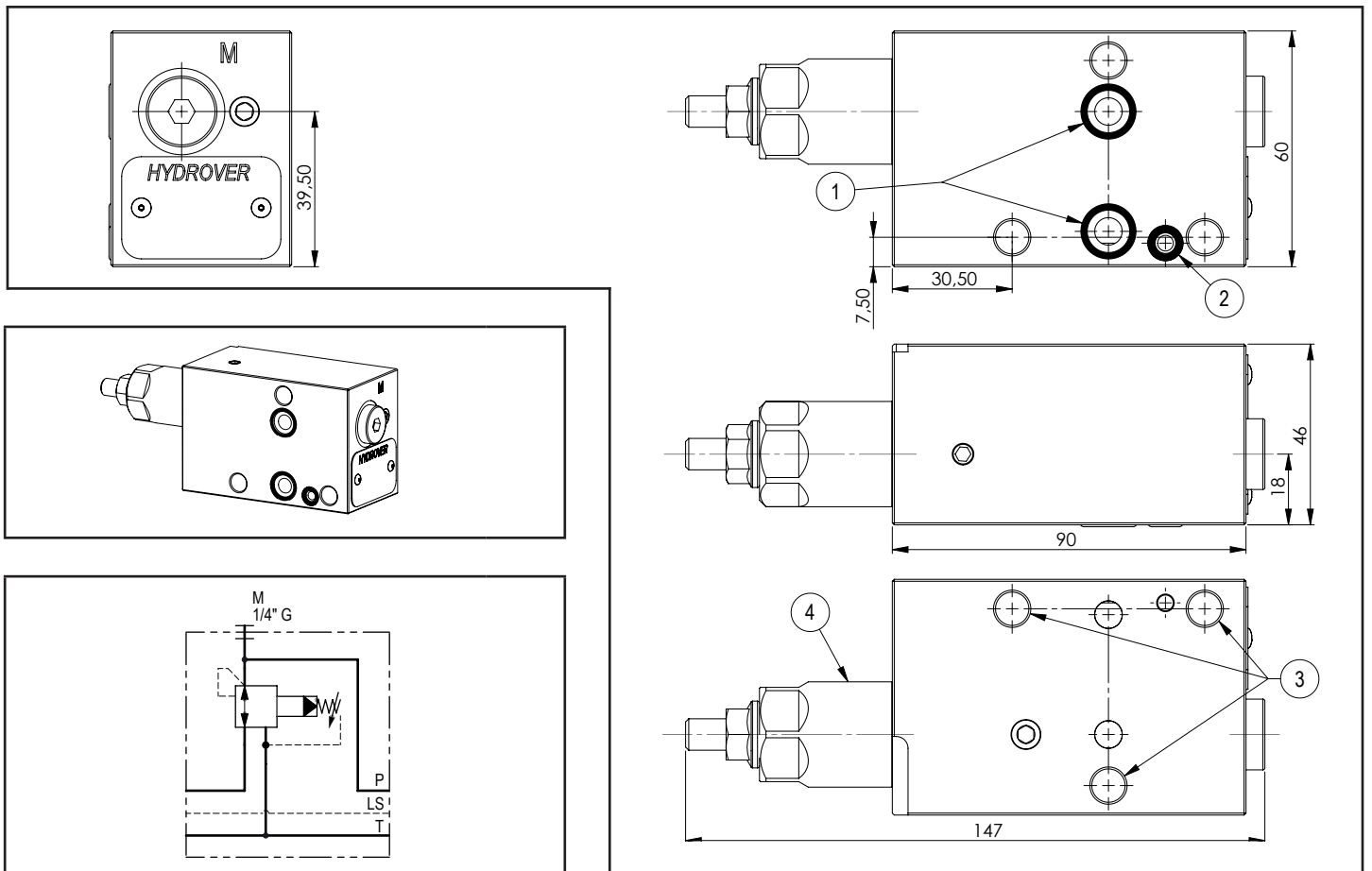
T - Ø7,5 or Ø9 - One side must have a counterbore for the O-ring

LS - One side must have a counterbore for the O-ring





Dimensions in mm



Ordering code

H 4 2 0 7 A - - -

Hydrover product

Product series

42 series - Load sensing plates for Bosch Rexroth ED bankable valves

Product ID

Manifold material

Aluminium

Pressure reducing valve type *

R = VRPR-10A (direct)
X = VRPX-10A (pilot)

VRPR-10A reducing valve pressure range (static) *

0 = 2-14 bar
1 = 2-25 bar
2 = 10-50 bar
3 = 28-80 bar

VRPX-10A reducing valve pressure range (static) *

0 = 25-100 bar
1 = 35-140 bar
2 = 70-280 bar
3 = 35-350 bar (adj. knob)

Reducing valve adjustment type *

S = Screw
K = Knob

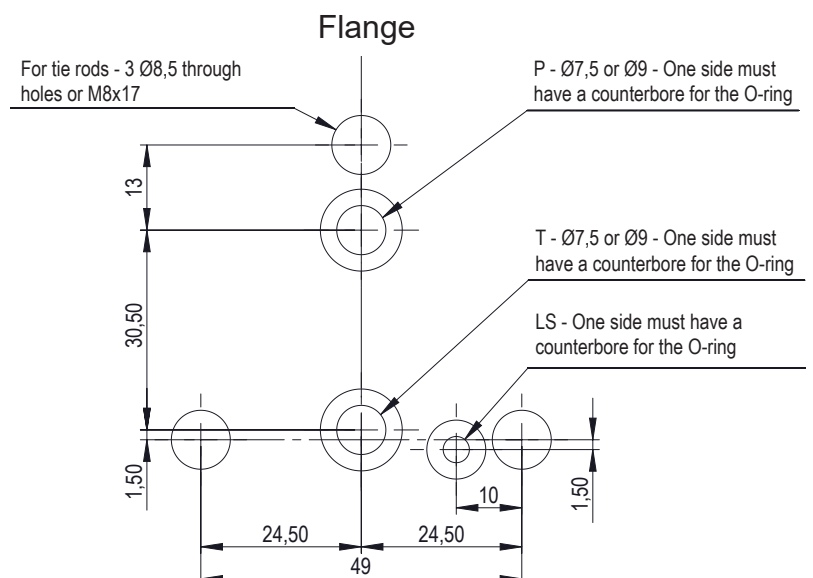
* Omit if not required. To order the product without the reducing cartridge valve, omit the adjustment type, pressure range and valve type options: H4207A.
The manifold will still be provided with the corresponding cavity.

N°	Description	Q.ty
1	Ø 7,5 hole with OR 2043 i. Ø 10,82 cross section 1,78 (P-T)	2
2	LS through hole with counterbore on one side for OR 2021 i. Ø 5,28 cross section 1,78	1
3	Ø 8,5 through hole for tie rod	3
4	Bosch Rexroth reducing valve VRPR-10A o VRPX-10A * depicted with screw adjustment	1

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue

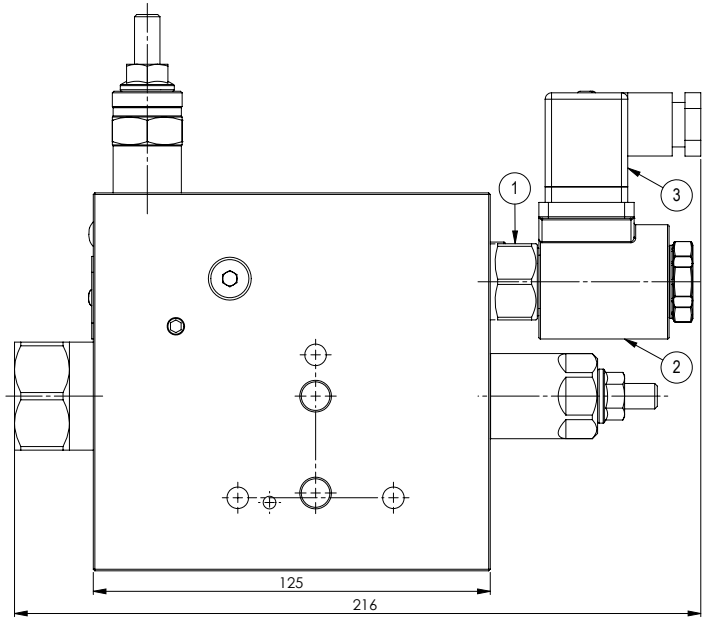
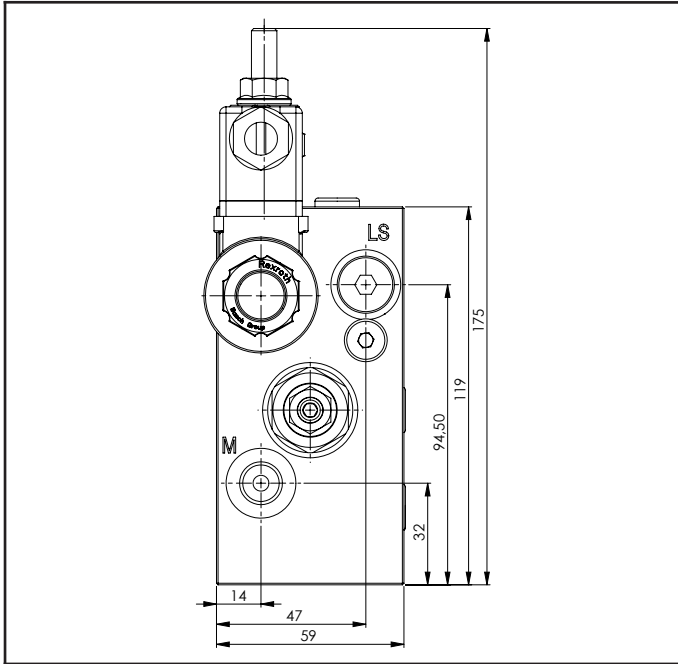
Technical data	
Max. pressure	250 bar
Max. flow with VRPR-10A	25 lpm *
Max. flow with VRPX-10A	55 lpm *
Weight	0,7 Kg
Manifold material	Aluminium

Can be used with LS or non LS elements.



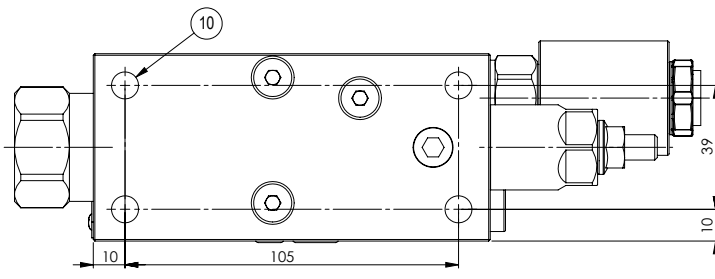
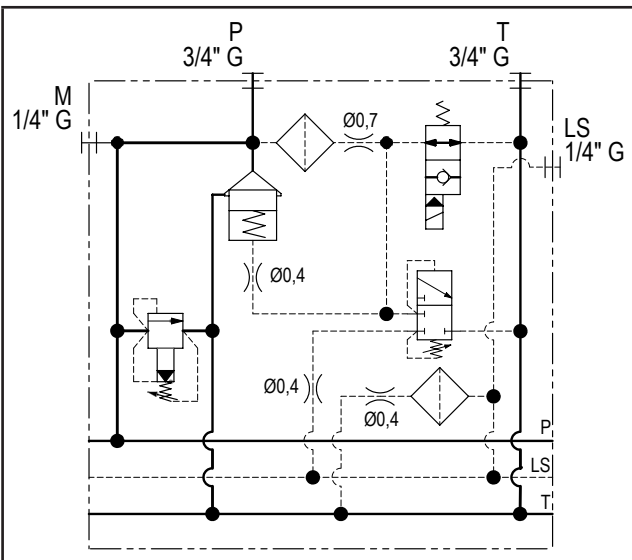
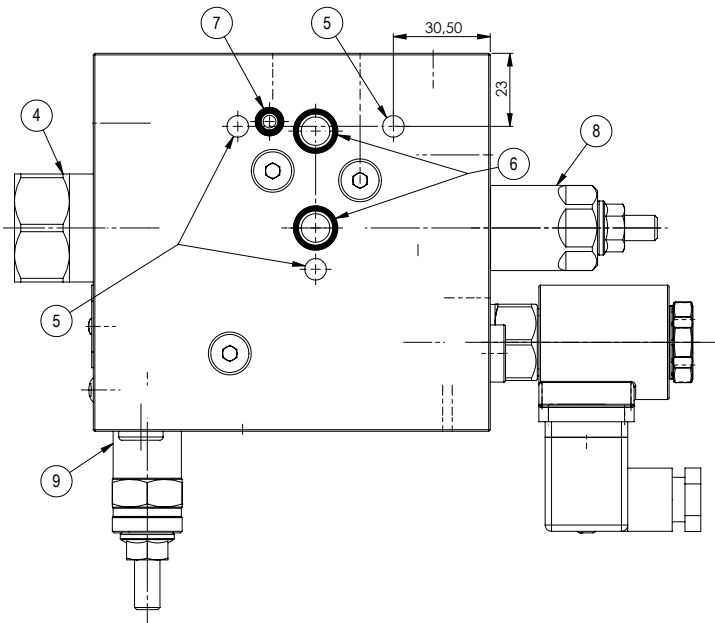
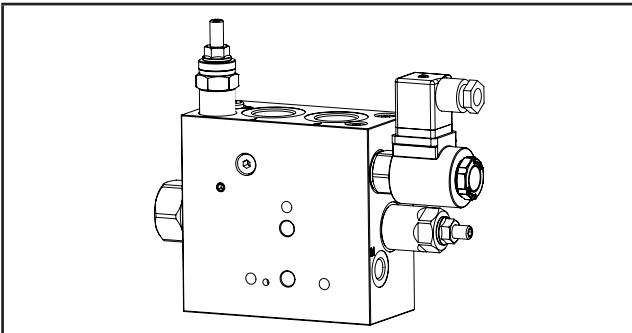
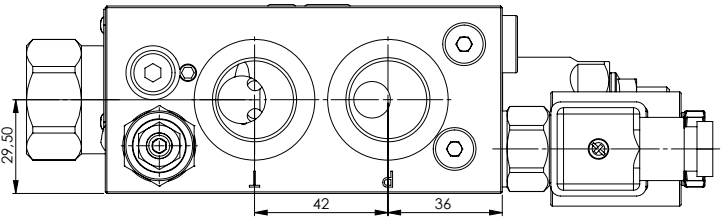
Intermediate load sensing inlet ED plate 3 way compensated variable delta P / relief valve / bypass valve / P-T ports 3/4" G

H4206



Dimensions in mm

Technical data	
Max. pressure	350 bar
Max. flow	90 lpm
Weight	6,7 Kg
Manifold material	Steel
Ports M LS	1/4" G
Ports P T	3/4" G



Ordering code

H 4 2 0 6 S - - - - -

Hydrover product

Product series

42 series - Load sensing plates for Bosch Rexroth ED bankable valves

Product ID

Manifold material

Steel

Relief valve adjustment type *

Screw = S
Knob = K

Relief valve adjustment pressure range *

35-140 bar = 1
70-280 bar = 2
140-420 bar = 3
35-350 bar (adj. knob) = 3

Solenoid valve coil connection *

1 = DIN 43650
ISO 4400

Solenoid valve coil voltage *

OB = 12V DC
OC = 24V DC
OD = 48V DC
OU = 110V RAC
AH = 230V RAC

Solenoid valve manual override *

E0 = Without
EP = Push
EG = Push and twist

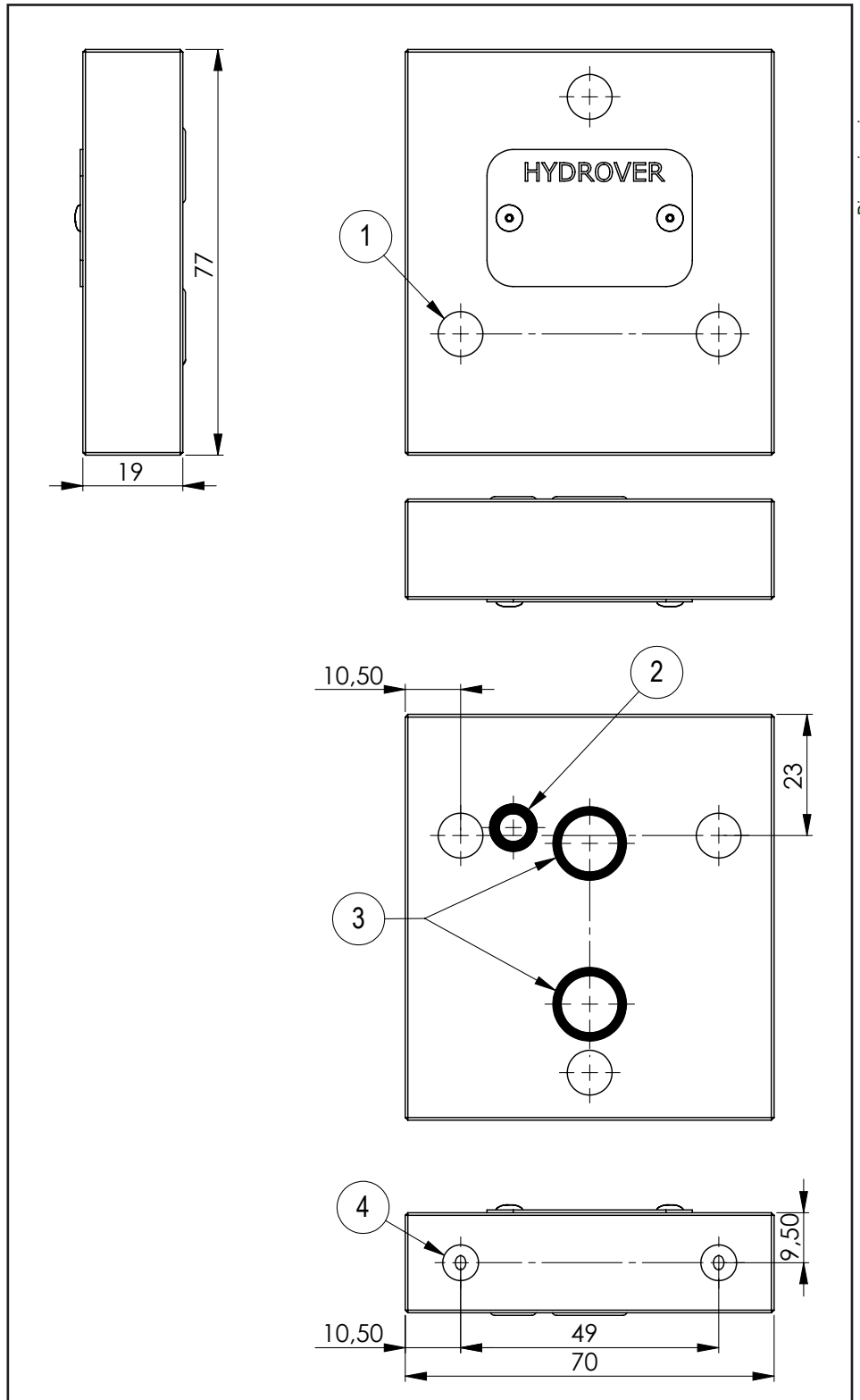
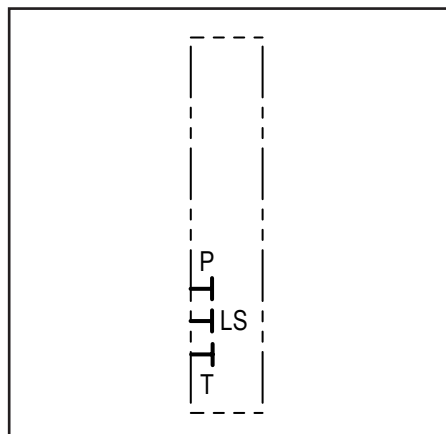
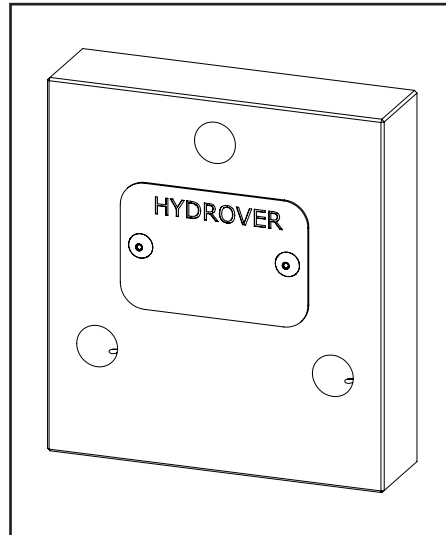
* Omit if not required. For example, to order the product without the relief valve, omit the relief valve adjustment type and pressure range options: H4206S-E0-OC1. The manifold will still be provided with the corresponding cavity. To inhibit a function, replace the related valve options with TL: eg H4206S-TL-E0-OC1. In the cavity it will be mounted a long plug.

Valve	Cavity	Long plug code
Solenoid valve VEI-16-10A-NA OD.15.06.36-Y-000000	CA-08A-2N	0489A2005600000
Pressure relief valve VSPN-10A	CA-10A-2N	0489A2008500000

N°	Description	Q.ty
1	Bosch Rexroth bypass solenoid valve VEI-16-10A-NA OD.15.06.36-Y-000000 **	1
2	Bosch Rexroth coil D36 - CLASS H DIN 43650 ISO 4400 **	1
3	Connector DIN 43650 ISO 4400	1
4	Pressure compensator	1
5	M8x12 for tie rod	6
6	Ø 9 through hole with counterbore on one side for OR 2043 i. Ø 10,82 cross section 1,78 (P-T)	2
7	LS hole with counterbore on one side for OR 2021 i. Ø 5,28 cross section 1,78	1
8	Bosch Rexroth relief valve VSPN-10A ** depicted with screw adjustment	1
9	Bosch Rexroth valve VDP32-07A-03-A for pressure drop regulation from 10 to 30 bar	1
10	M10x15 for mounting	4

** for complete technical information, click on the blue link or go to the components section at the end of the catalogue

Technical data	
Max. pressure	250 bar
Weight	0,28 Kg
Manifold material	Aluminium



N°	Description	Q.ty
1	Ø 8,5 through hole for tie rod	3
2	OR 2021 i. Ø 5,28 cross section 1,78 (LS)	1
3	OR 2043 i. Ø 10,82 cross section 1,78 (P-T)	2
4	M8x15 thread for mounting	2

Ordering code

H	4	2	2	1	A
---	---	---	---	---	---

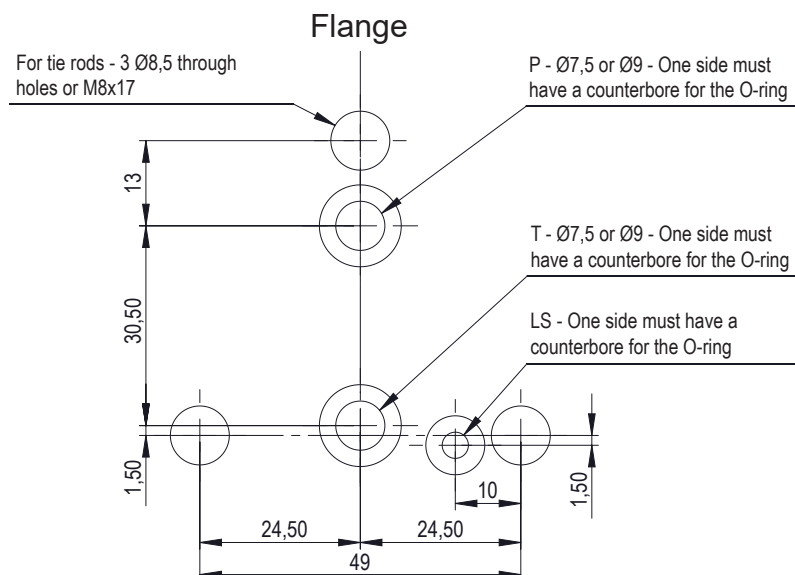
Hydrover product

Manifold material
Aluminium

Product series

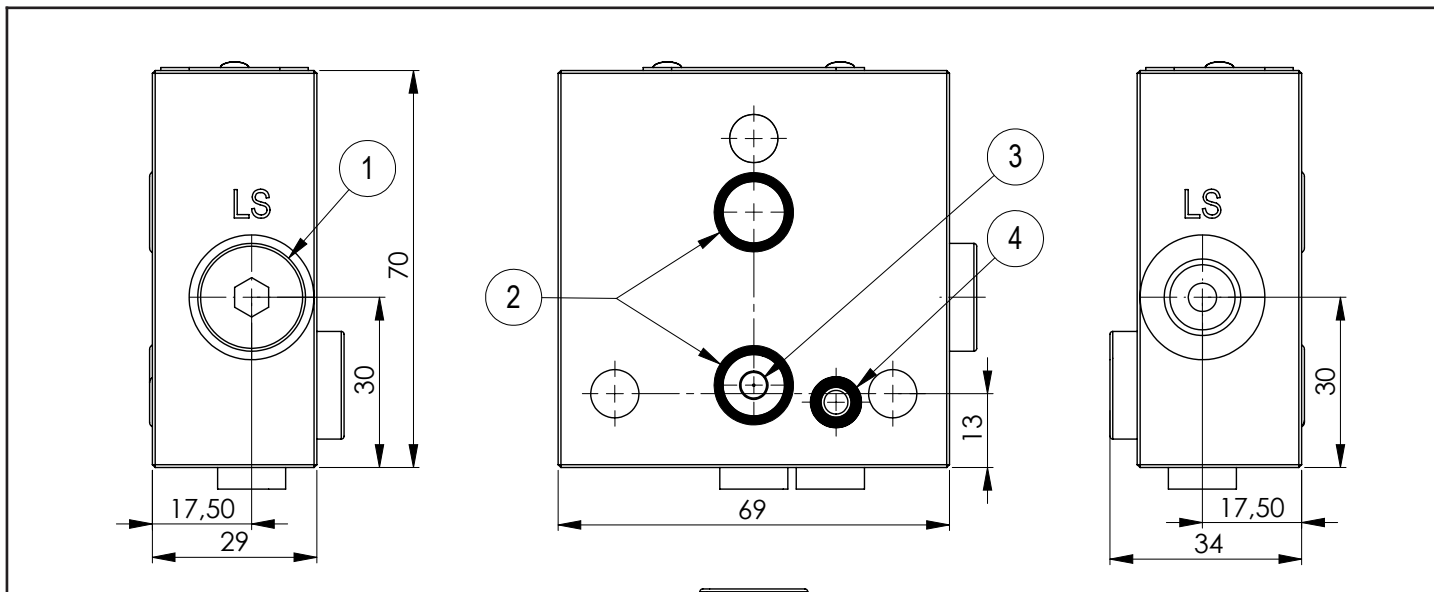
42 series - Load sensing plates for Bosch Rexroth ED bankable valves

Product ID

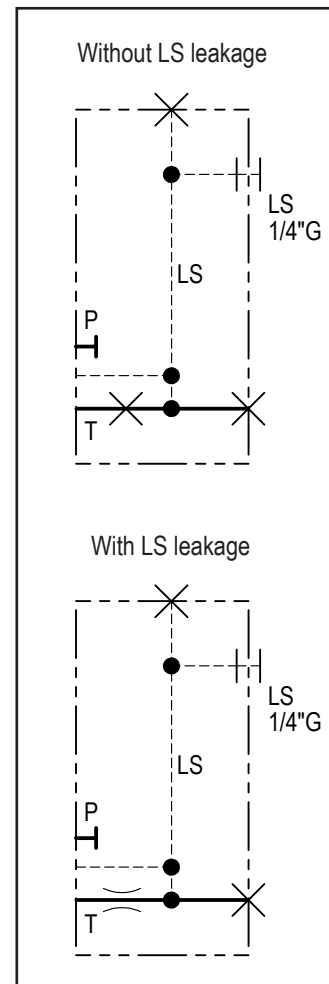
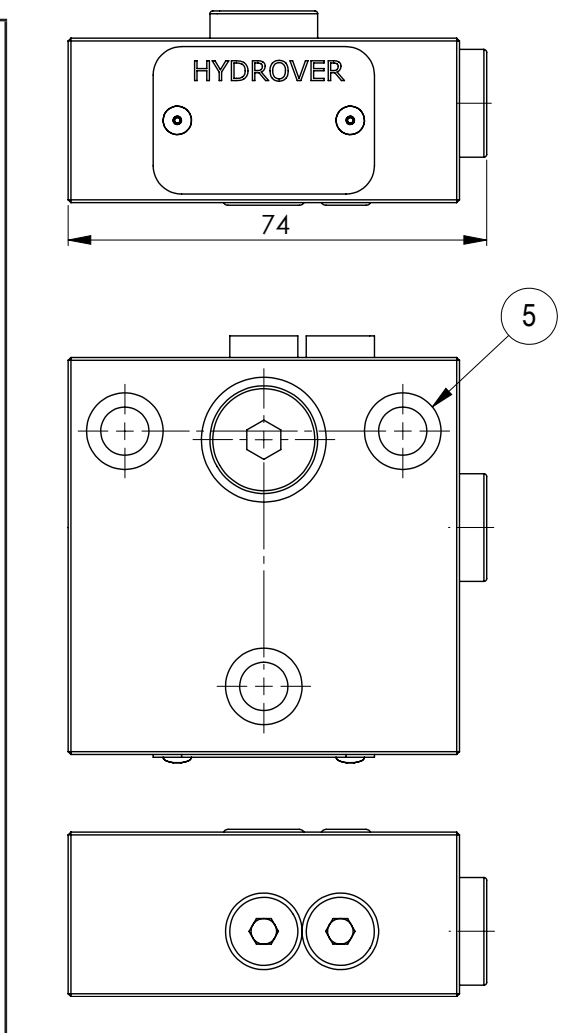
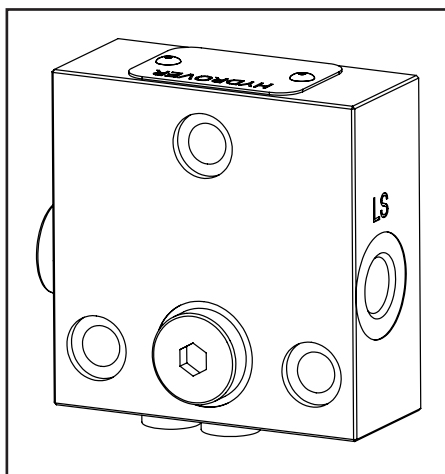


Closing plate with LS ports and LS leakage **H4202**

Dimensions in mm



Technical data	
Max. pressure	350 bar
Weight	1 Kg
Manifold material	Steel
LS ports	1/4" G



N°	Description	Q.ty
1	TPCLG 1/4"G plug on LS	1
2	OR 2043 i. Ø 10,82 cross section 1,78 (P-T)	2
3	TPCN 6 conical plug or flow restrictor for LS leakage	1
4	OR 2021 i. Ø 5,28 cross section 1,78 (LS)	1
5	Ø 8,5 through hole for tie rod with counterbore Ø 13,5 \downarrow 2	3

Ordering code

H	4	2	0	2	S	-	
---	---	---	---	---	---	---	--

Hydrover product

Product series

42 series - Load sensing plates for Bosch Rexroth ED bankable valves

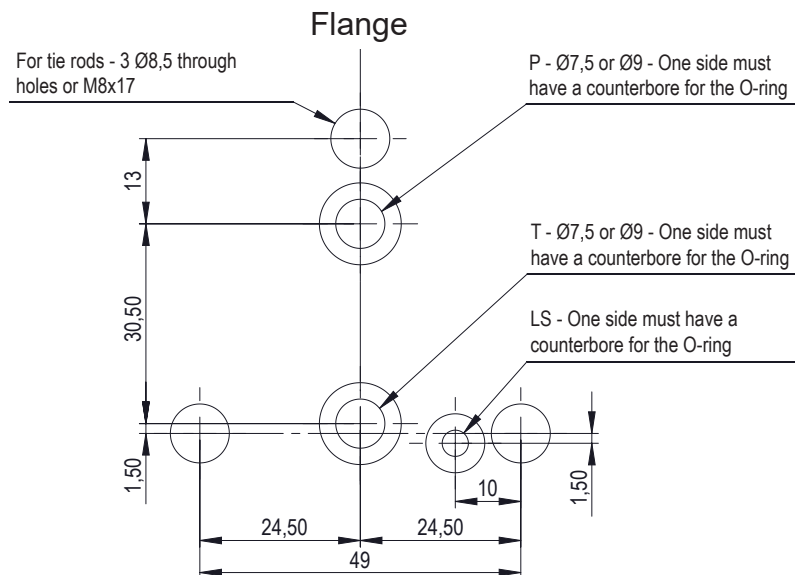
Product ID

LS leakage

00 =	without
04 =	Ø 0,4 mm
05 =	Ø 0,5 mm
06 =	Ø 0,6 mm
07 =	Ø 0,7 mm

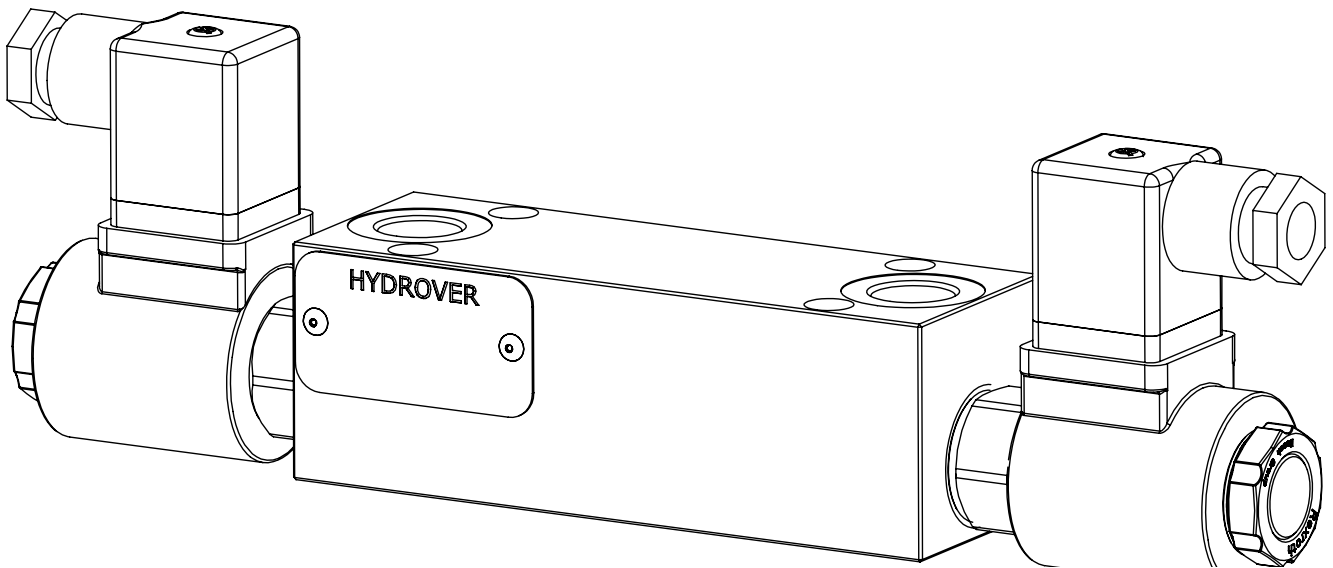
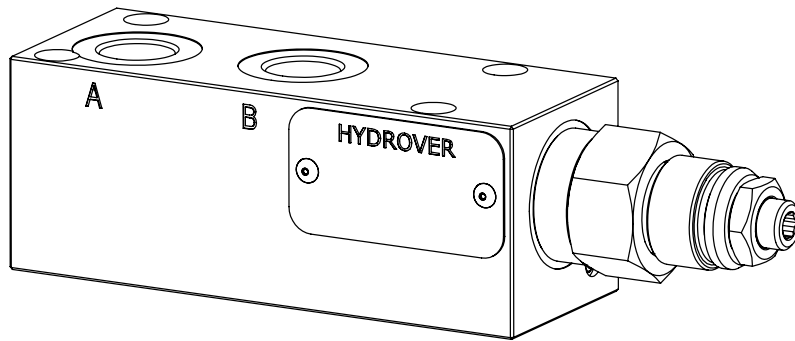
Manifold material

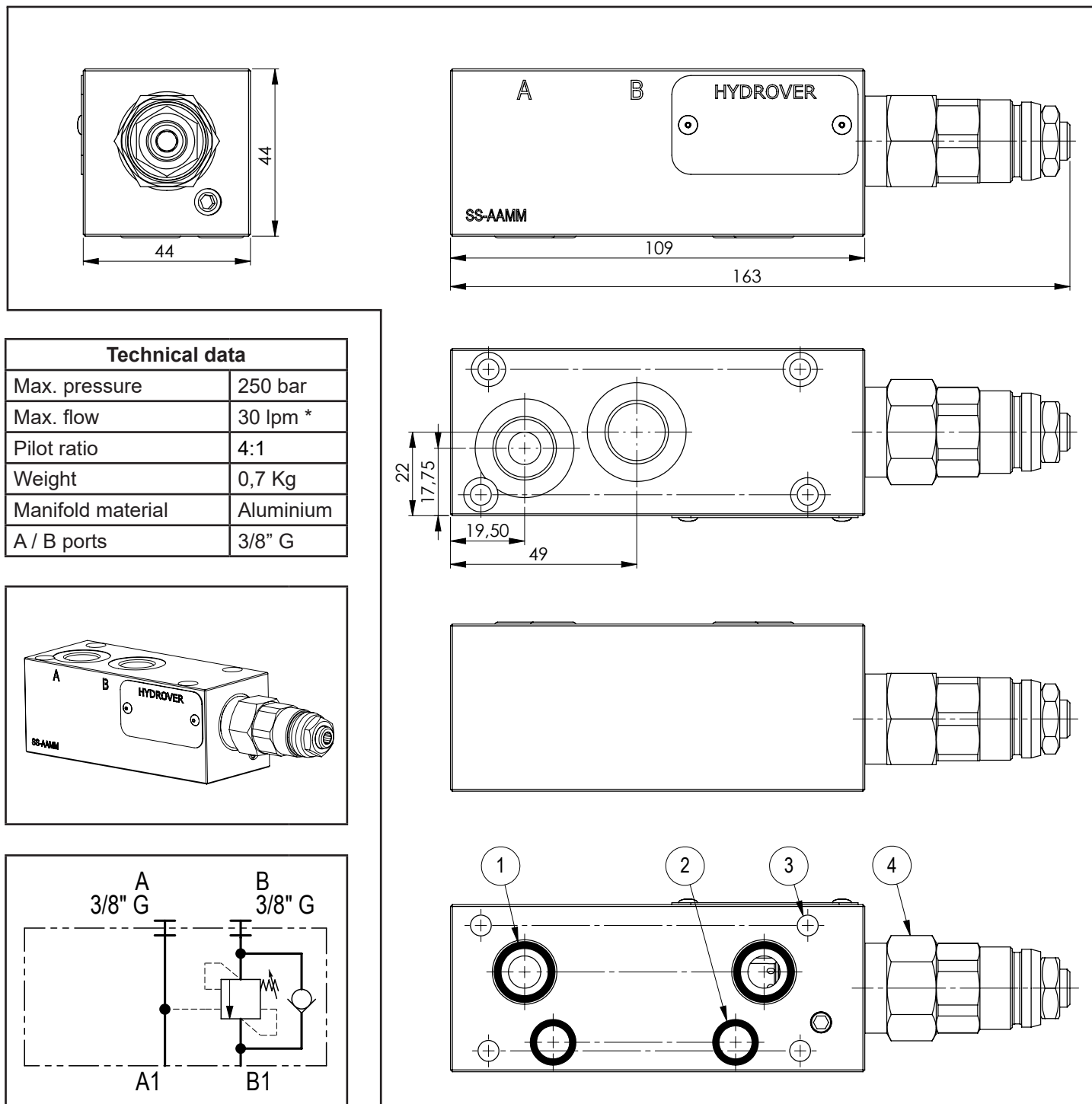
Steel



48 SERIES

Flangeable elements for Bosch Rexroth EDC bankable valves





N°	Description	Q.ty
1	OR 2050 i. Ø 12,42 cross section 1,78	2
2	OR 108 i. Ø 8,73 cross section 1,78	2
3	Ø 5,5 through hole with counterbore for mounting	4
4	Bosch Rexroth counterbalance valve VBSN-08AA *	1

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue

Ordering code

H	4	8	0	3	A	-	-	-
---	---	---	---	---	---	---	---	---

Hydrover product

Product series

48 series - Flangeable elements for Bosch Rexroth EDC bankable valves

Product ID

Manifold material

Aluminium

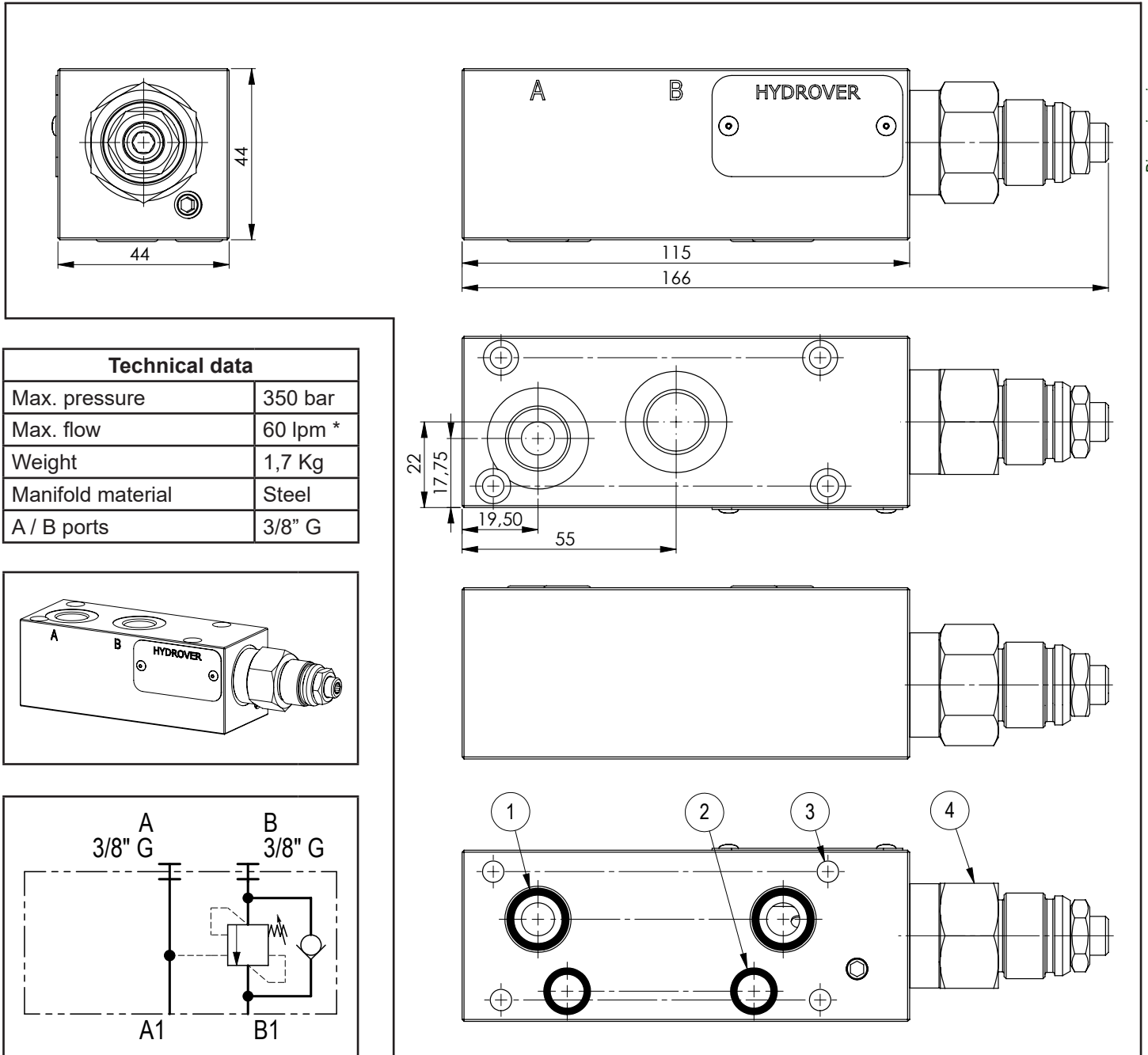
Counterbalance valve adjustment pressure range *

2 = 70-210 bar
3 = 140-350 bar

Counterbalance valve adjustment type *

S = Screw

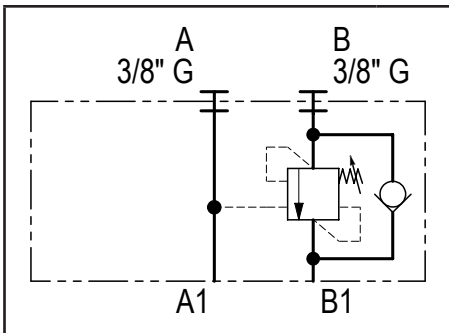
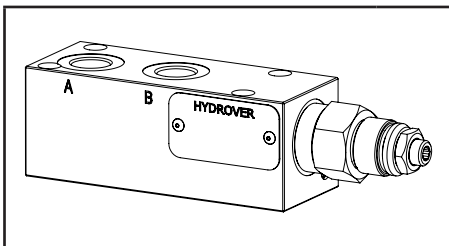
* Omit if not required. The manifold will still be provided with the corresponding cavity.



Dimensions in mm

Technical data	
Max. pressure	350 bar
Max. flow	60 lpm *
Weight	1,7 Kg
Manifold material	Steel
A / B ports	3/8" G

Max. pressure	350 bar
Max. flow	60 lpm *
Weight	1,7 Kg
Manifold material	Steel
A / B ports	3/8" G



N°	Description	Q.ty
1	Bosch Rexroth counterbalance valve VBSN-10A *	1
2	Ø 5,5 through hole with counterbore for mounting	4
3	OR 108 i. Ø 8,73 cross section 1,78	2
4	OR 2050 i. Ø 12,42 cross section 1,78	2

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue

Ordering code

H	4	8	0	1	S	-	_	_	_
---	---	---	---	---	---	---	---	---	---

Hydrover product

Product series

48 series - Flangeable elements for Bosch Rexroth EDC bankable valves

Product ID

Manifold material

Steel

Counterbalance valve pilot ratio *

3 =	3:1
8 =	8:1

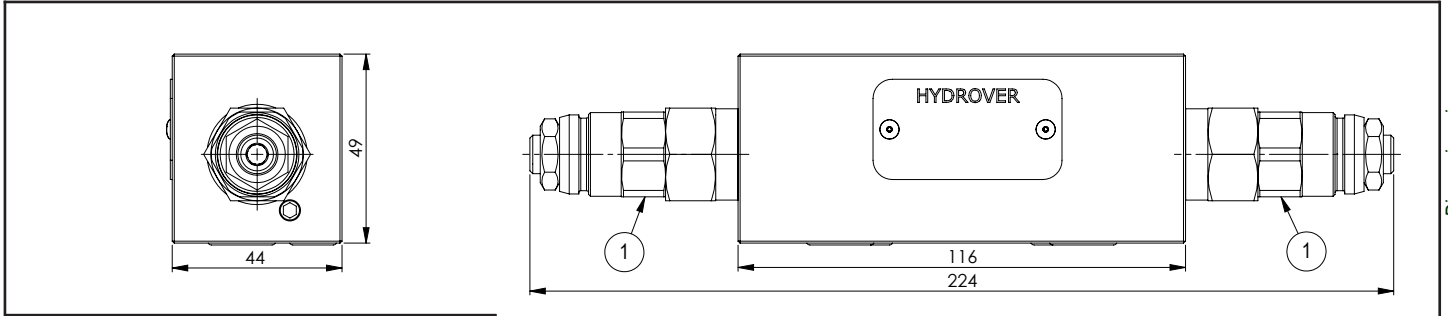
Counterbalance valve adjustment pressure range *

2 =	70-210 bar
3 =	140-350 bar

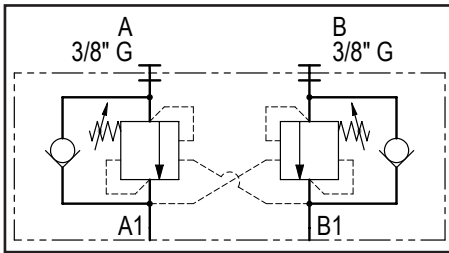
Counterbalance valve adjustment type *

S = Screw

* Omit if not required. The manifold will still be provided with the corresponding cavity.

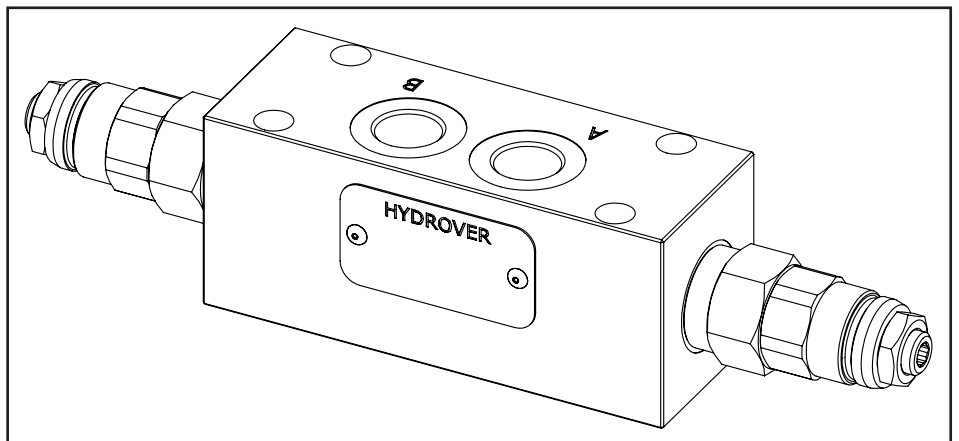
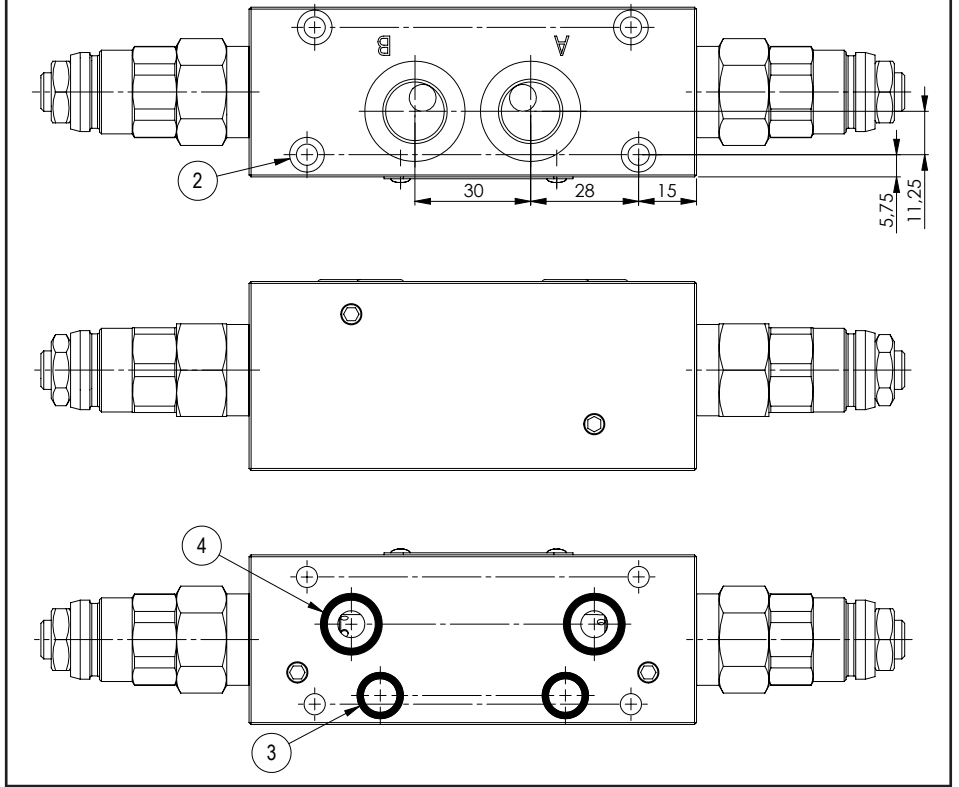


Technical data	
Max. pressure	250 bar
Max. flow	30 lpm *
Pilot ratio	4:1
Weight	1 Kg
Manifold material	Aluminium
A / B ports	3/8" G



N°	Description	Q.ty
1	Bosch Rexroth counterbalance valve VBSN-08AA *	2
2	Ø 5,5 through hole with counterbore for mounting	4
3	OR 108 i. Ø 8,73 cross section 1,78	2
4	OR 2050 i. Ø 12,42 cross section 1,78	2

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue



Dimensions in mm

Ordering code

H	4	8	0	7	A	-	-	-	-	-
---	---	---	---	---	---	---	---	---	---	---

Hydrover product

Product series

48 series - Flangeable elements for Bosch Rexroth EDC bankable valves

Product ID

Manifold material

Aluminium

Counterbalance valve adjustment pressure range on B *

2 = 100-210 bar
3 = 200-350 bar

Counterbalance valve adjustment type on B *

S = Screw

Counterbalance valve adjustment pressure range on A *

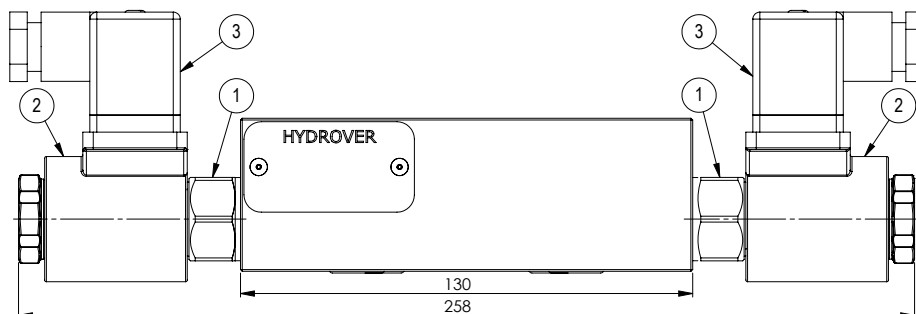
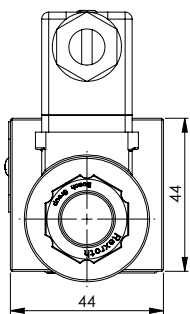
2 = 100-210 bar
3 = 200-350 bar

Counterbalance valve adjustment type on A

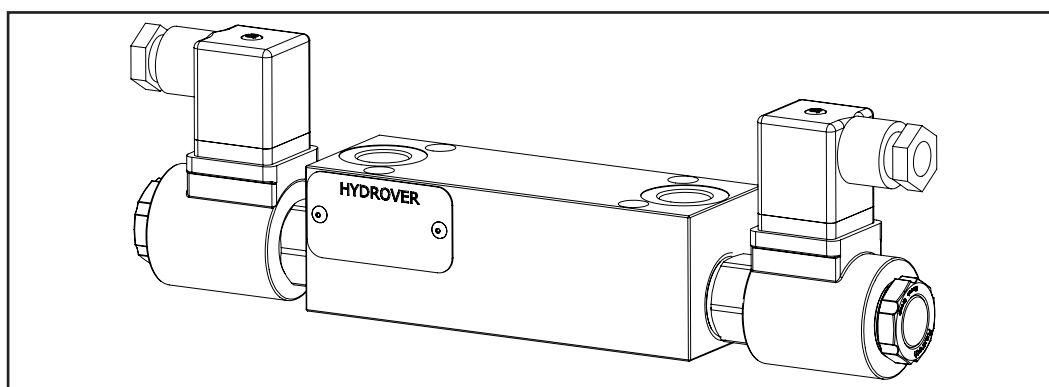
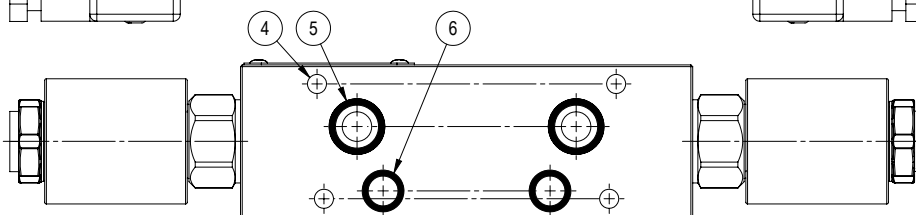
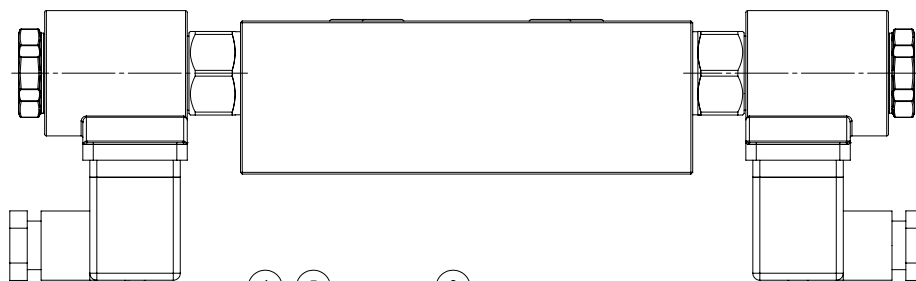
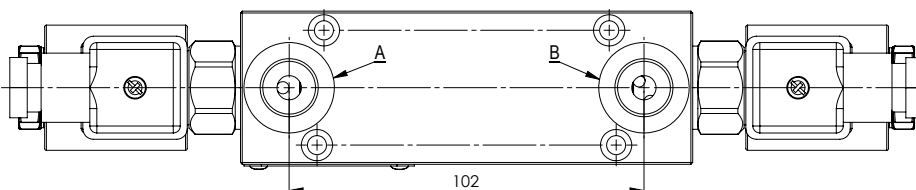
S = Screw

* Omit if not required. To order the product without the counterbalance cartridge valves, omit the adjustment type and pressure range options on A e B: H4807A.
The manifold will still be provided with the corresponding cavities.

Dimensions in mm



Technical data	
Max. pressure	250 bar
Max. flow	40 lpm *
Weight	1,4 Kg
Manifold material	Aluminium
A / B ports	3/8" G



N°	Description	Q.ty
1	Bosch Rexroth solenoid valve VEI-16-08A-NC OD.15-X-18-Y-000000 (normally closed) or VEI-16-08A-NA OD.15-X-18-Y-000000 (normally open) depicted without manual override *	2
2	Bosch Rexroth coil D36 - CLASS H DIN 43650 ISO 4400 *	2
3	Connector DIN 43650 ISO 4400	2
4	Ø 5,5 through hole for mounting	4
5	OR 2050 i. Ø 12,42 cross section 1,78	2
6	OR 108 i. Ø 8,73 cross section 1,78	2

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue

Ordering code

H 4 8 0 2 A - - - - -

Hydrover product

Product series

48 series - Flangeable elements for Bosch Rexroth EDC bankable valves

Product ID

Manifold material

Aluminium

Solenoid valves spool type *

Normally open = NA
 Normally closed = NC
 Normally open double lock = 2A
 Normally closed double lock = 2C

Solenoid valves coil connection *

1 = DIN 43650 ISO 4400

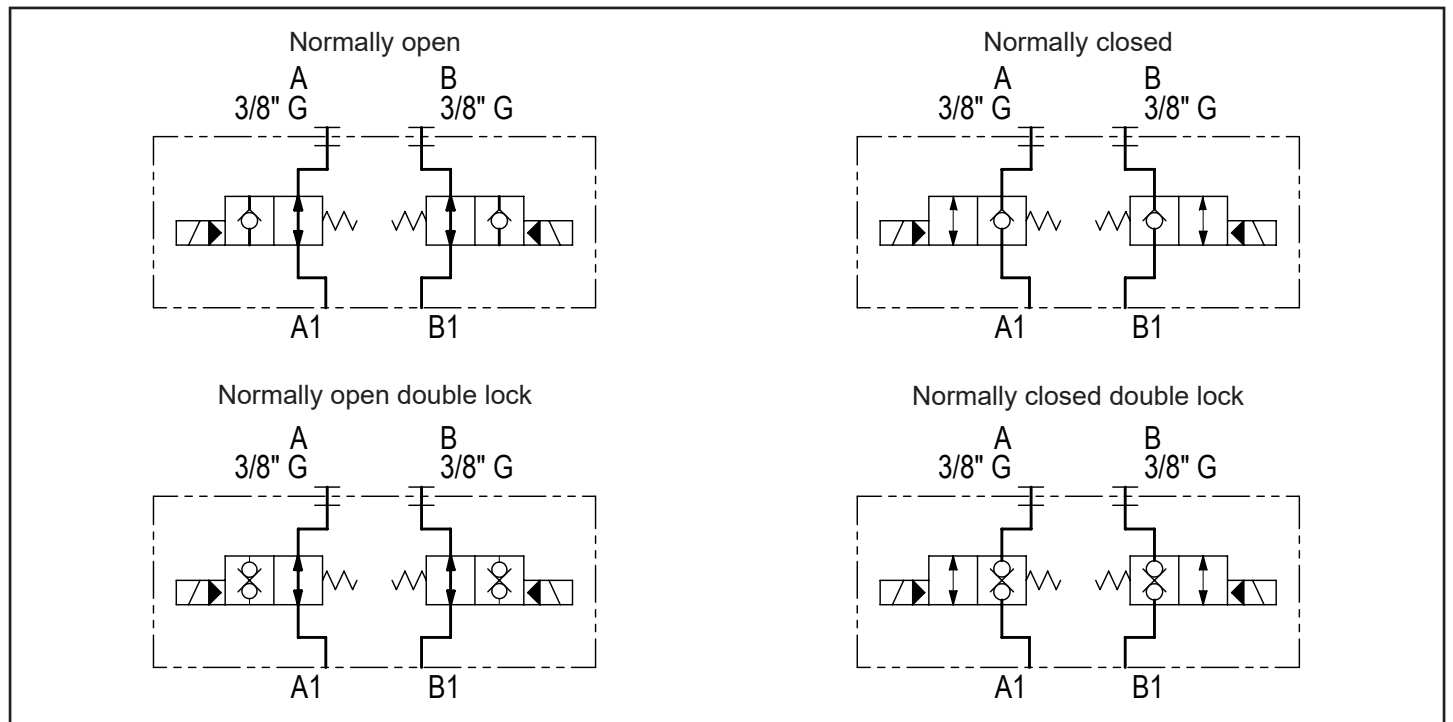
Solenoid valves coil voltage *

OB = 12V DC
 OC = 24V DC
 OD = 48V DC
 OU = 110V RAC
 AH = 230V RAC

Solenoid valves manual override *

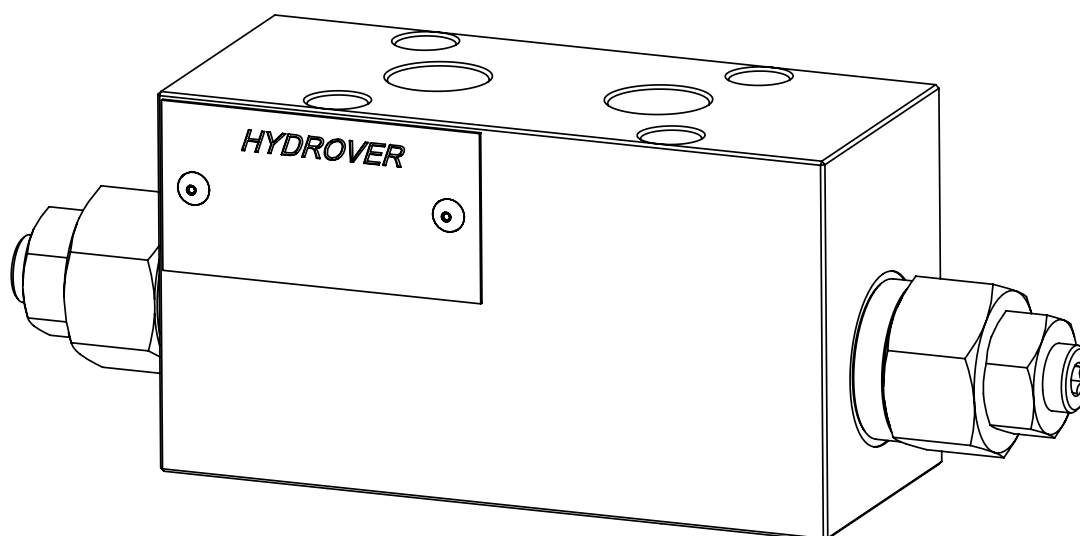
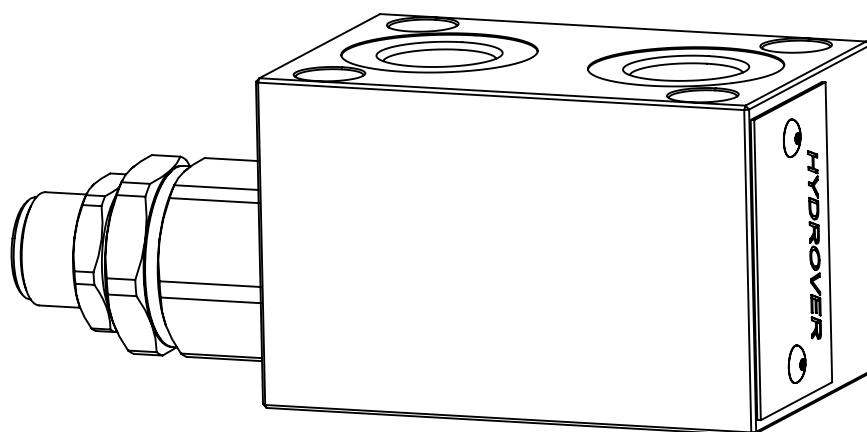
E0 = Without
 EP = Push (NA, 2A)
 EV = Screw (NC, 2C)
 EG = Push and twist (NA, 2A)

* Omit if not required. For example to order the product without the coils, omit the solenoid valves coil voltage and coil connection options: H4802A-NC-E0.

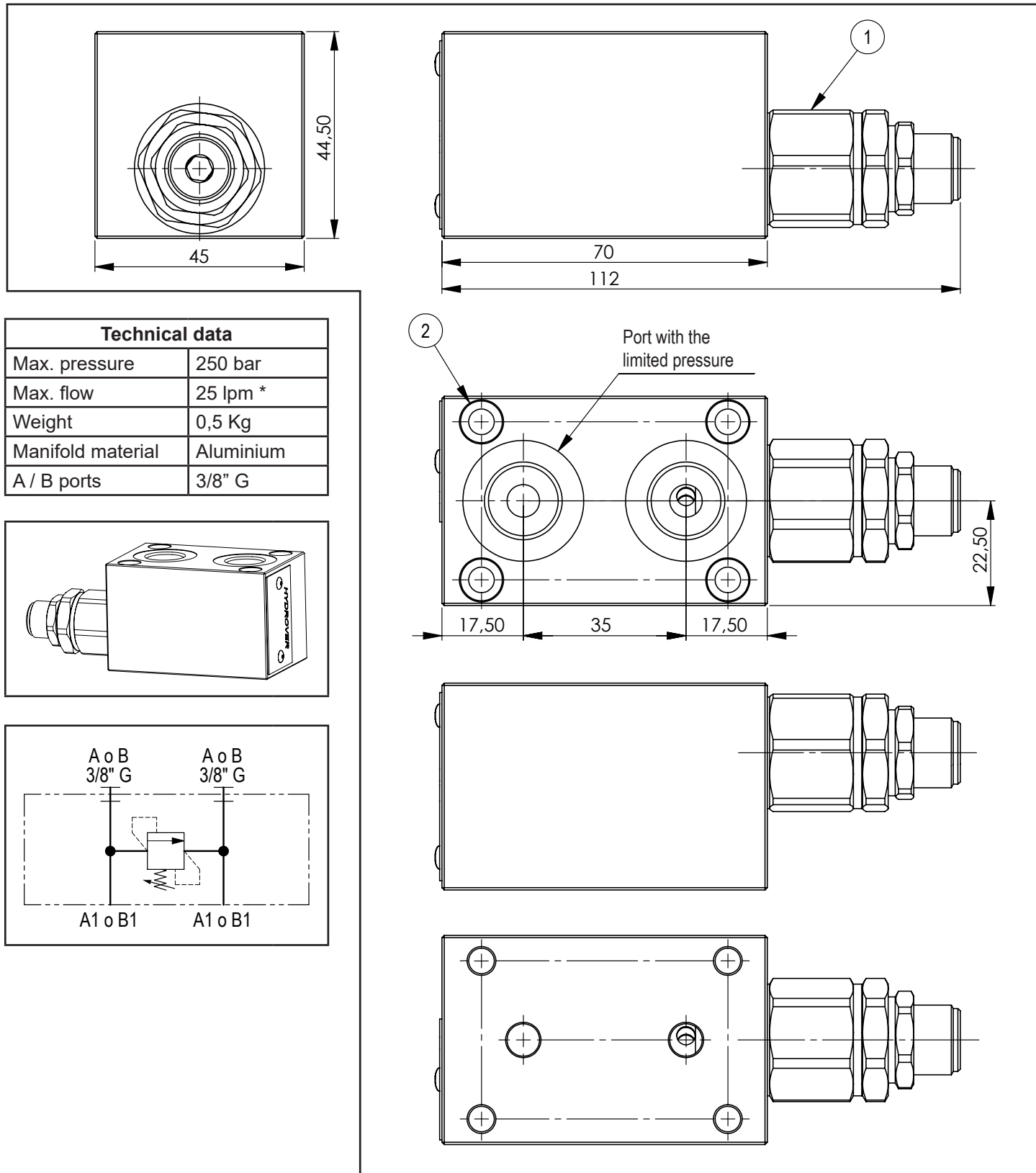


49 SERIES

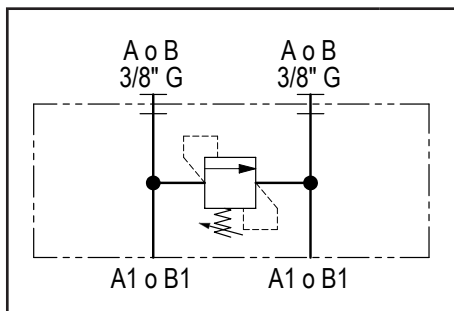
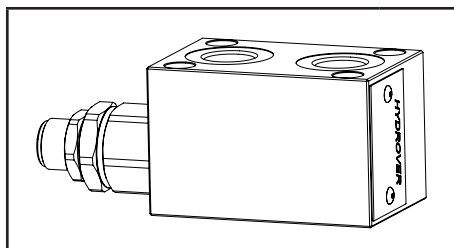
Flangeable elements for Bosch Rexroth ED bankable valves



Dimensions in mm



Technical data	
Max. pressure	250 bar
Max. flow	25 lpm *
Weight	0,5 Kg
Manifold material	Aluminium
A / B ports	3/8" G



N°	Description	Q.ty
1	Bosch Rexroth relief valve VMD1.025 *	1
2	Ø 5,5 through hole with counterbore for mounting	4

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue

Ordering code

H	4	9	0	2	A	-	-	-
---	---	---	---	---	---	---	---	---

Hydrover product

Product series

49 series - Flangeable elements for Bosch Rexroth ED bankable valves

Product ID

Relief valve adjustment pressure range *

- 1= 25-120 bar
- 2= 40-200 bar
- 3= 200-350 bar

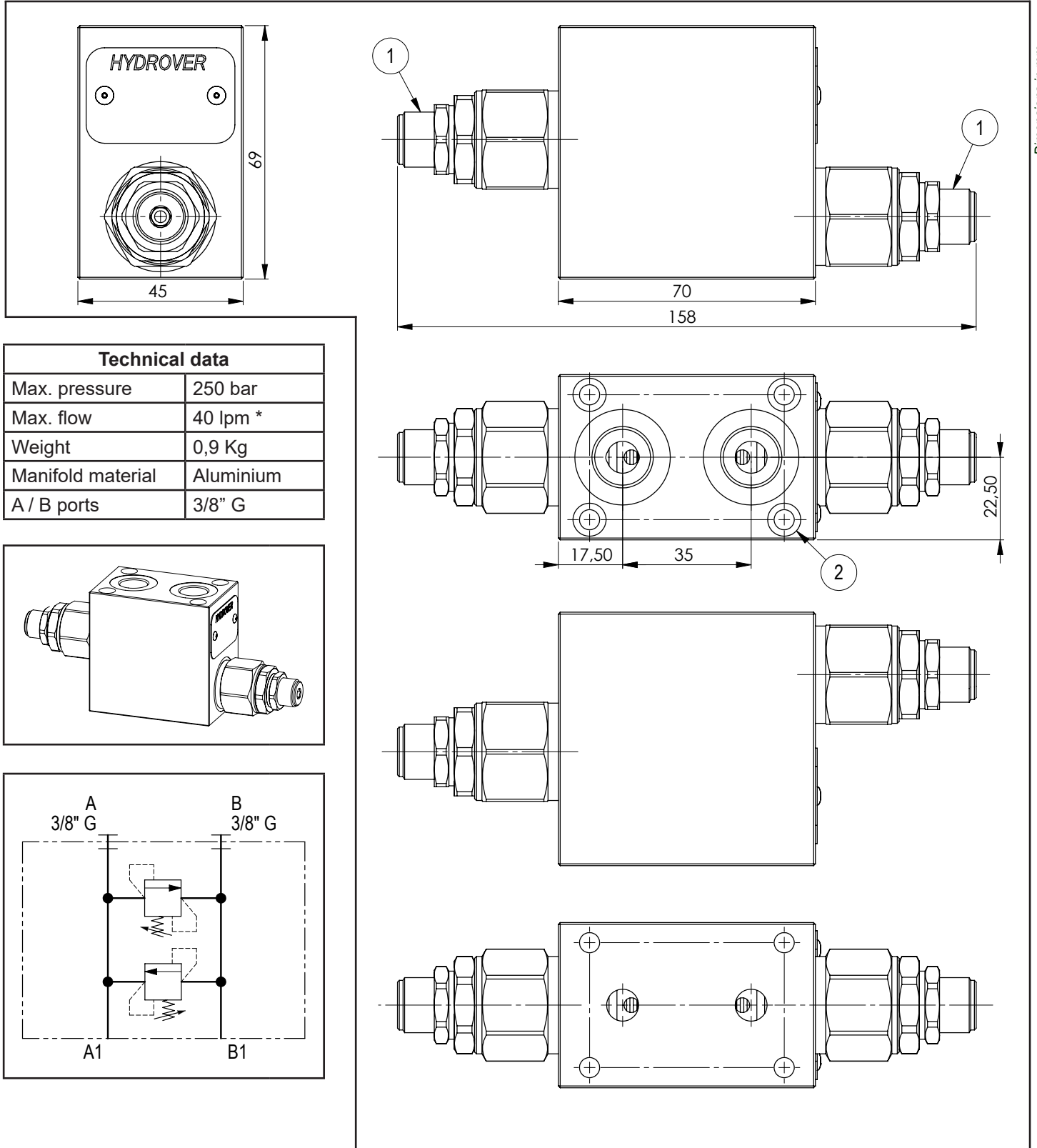
Relief valve adjustment type *

S = Screw

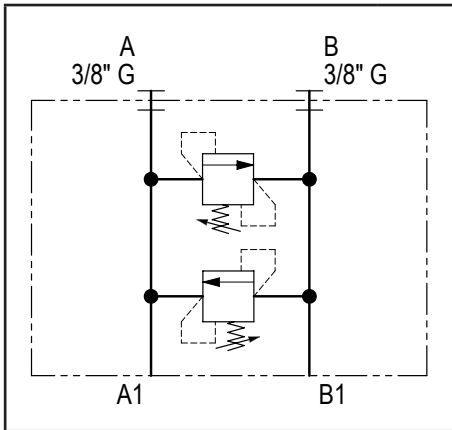
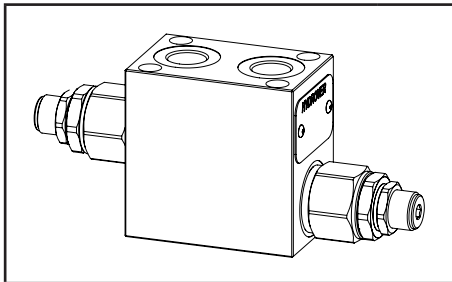
Manifold material

Aluminium

* Omit if not required. The manifold will still be provided with the corresponding cavity.



Technical data	
Max. pressure	250 bar
Max. flow	40 lpm *
Weight	0,9 Kg
Manifold material	Aluminium
A / B ports	3/8" G



N°	Description	Q.ty
1	Bosch Rexroth relief valve VMD1.040 *	2
2	Ø 5,5 through hole with counterbore for mounting	4

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue

Ordering code

H	4	9	0	8	A	-	-	-	-	-
---	---	---	---	---	---	---	---	---	---	---

Hydrover product

Product series

49 series - Flangeable elements for Bosch Rexroth ED bankable valves

Product ID

Manifold material

Aluminium

Relief valve adjustment type on A *

Screw

= S

Relief valve adjustment pressure range on B *

- 1= 25-120 bar
- 2= 40-200 bar
- 3= 200-350 bar

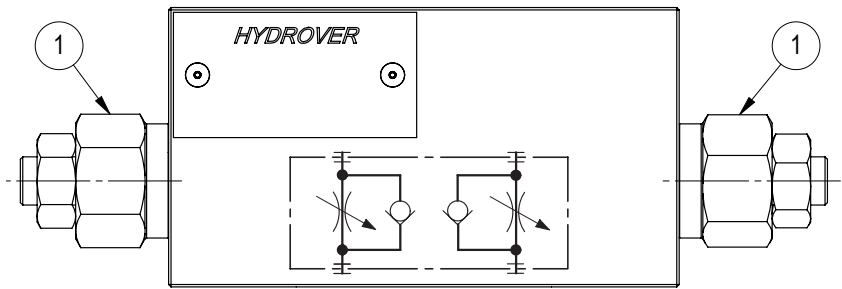
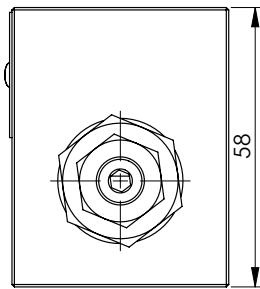
Relief valve adjustment type on B *

S = Screw

Relief valve adjustment pressure range on A *

- 1= 25-120 bar
- 2= 40-200 bar
- 3= 200-350 bar

* Omit if not required. The manifold will still be provided with the corresponding cavity.

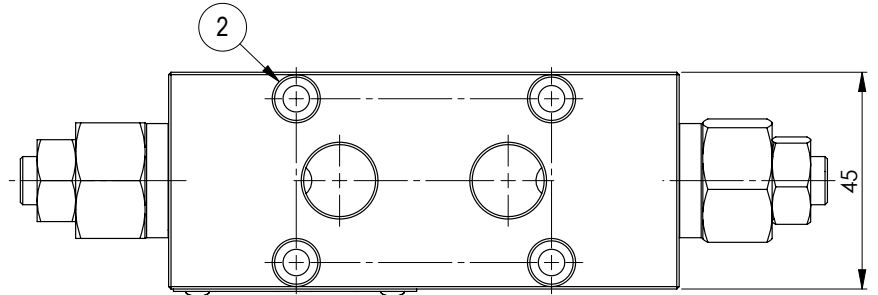
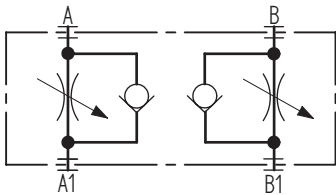


Dimensions in mm

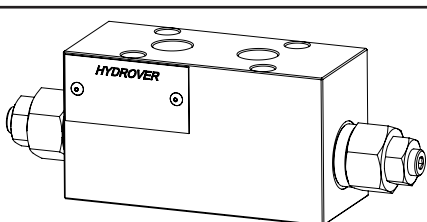
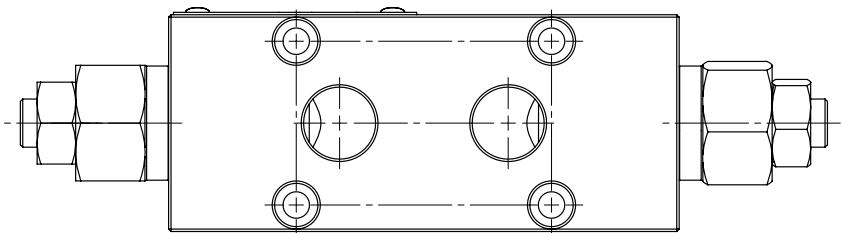
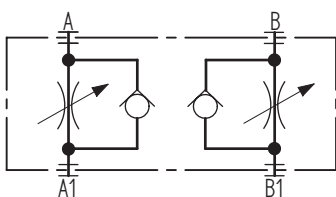
Technical data

Max. pressure	250 bar
Max. flow	40 lpm *
Weight with 1 valve	0,9 Kg
Weight with 2 valves	1 Kg
Manifold material	Aluminium
Bottom and top A / B ports	3/8" G

Restrict in output
(as depicted)



Restrict in input
(invert the flangeable element)



H4901A-SA-SB

N°	Description	Q.ty
1	Bosch Rexroth unidirectional flow restrictor STVU-08A * depicted with screw adjustment	1/2
2	Ø 5,5 through hole with counterbore for mounting	4

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue

Ordering code

H	4	9	0	1	_	-	_	_	-	_	_
---	---	---	---	---	---	---	---	---	---	---	---

Hydrover product

Product series

49 series - Flangeable elements for Bosch Rexroth ED bankable valves

Product ID

Manifold material

Aluminium
Steel

= A
= S

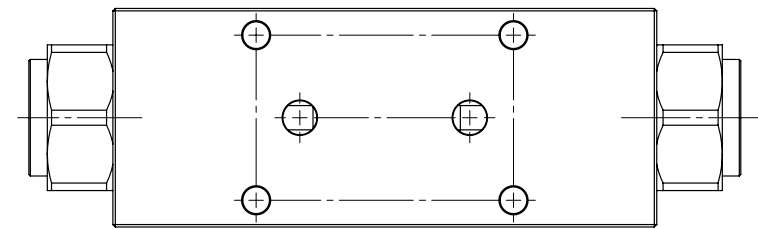
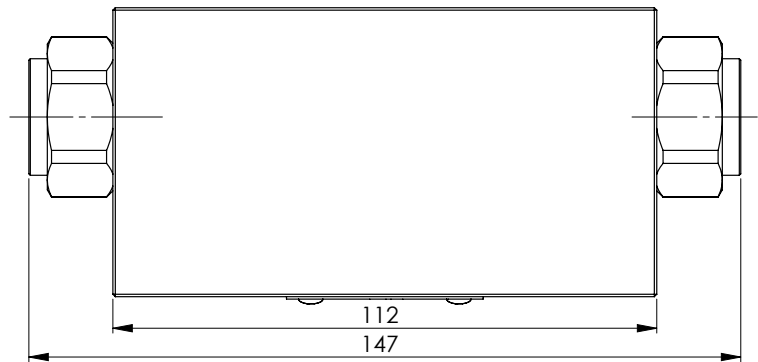
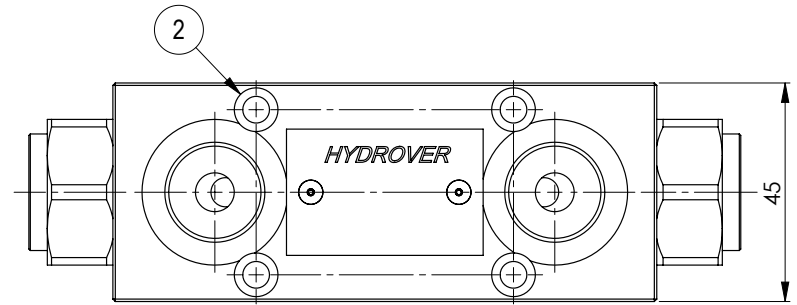
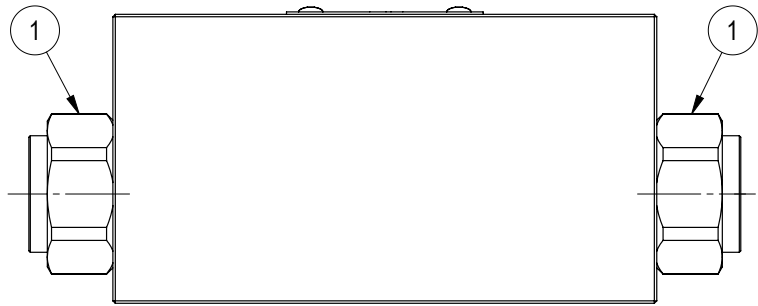
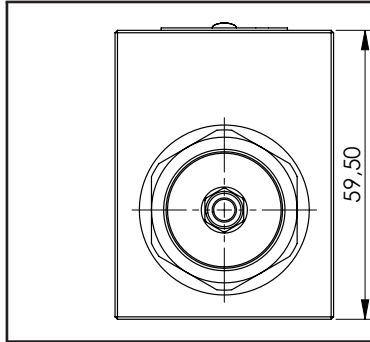
Unidirectional flow restrictor on B

SB = Screw
KB = Knob
TB = Without flow restrictor

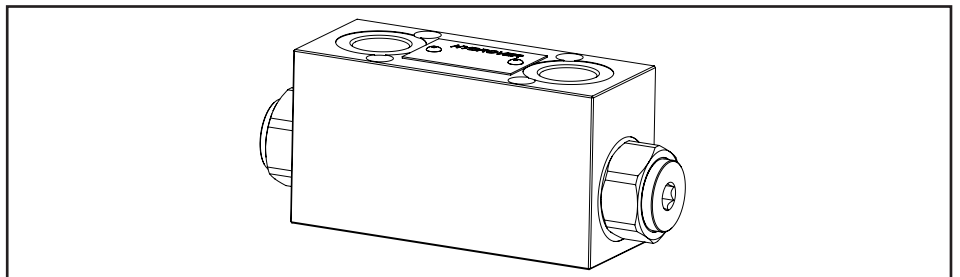
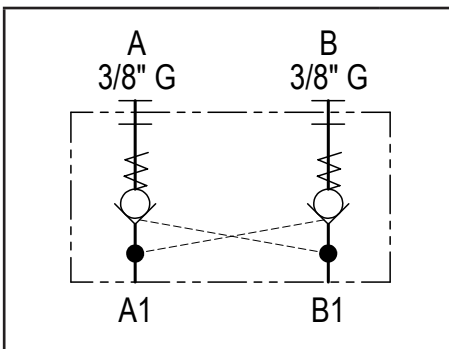
Unidirectional flow restrictor on A

SA = Screw
KA = Knob
TA = Without flow restrictor

To inhibit one of the flow restrictors, substitute the related options with T: eg. H4901A-TA-SB. In the cavity it will be mounted a short plug.		
Valve	Cavity	Short plug code
Bosch Rexroth unidirectional flow restrictor STVU-08A	CA-08A-2N	R-800-008



Technical data	
Max. pressure	250 bar
Max. flow	40 lpm
Weight	0,7 Kg
Manifold material	Aluminium
A / B ports	3/8" G



Dimensions in mm

N°	Description	Q.ty
1	Bosch Rexroth check valve	2
2	Ø 5,5 through hole with counterbore for mounting	4

Ordering code

H	4	9	0	3	A	-	I	A	-	O	R	-
---	---	---	---	---	---	---	---	---	---	---	---	---

Hydrover product

Product series

49 series - Flangeable elements for Bosch Rexroth ED bankable valves

Product ID

Manifold material

Aluminium

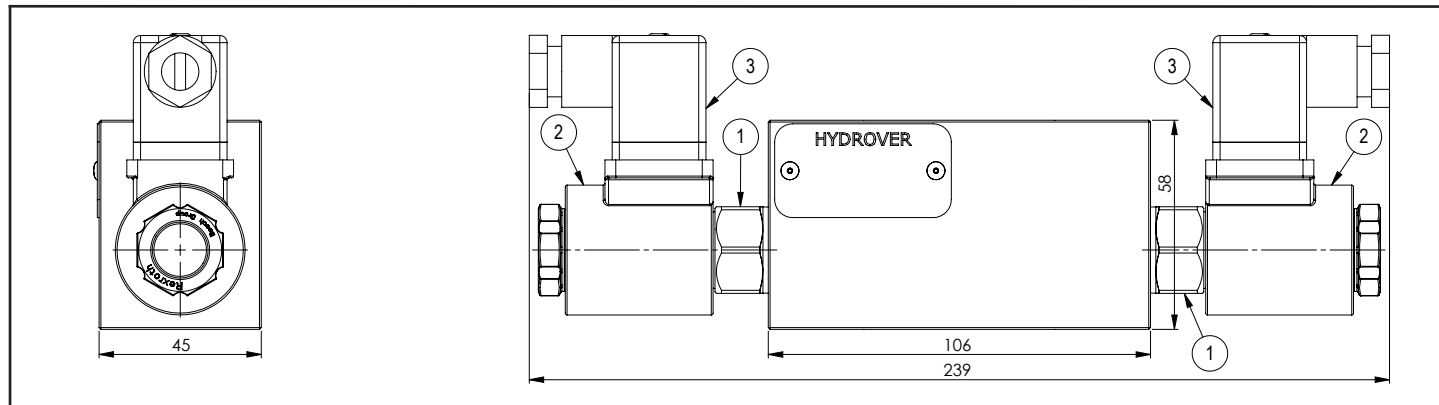
O-ring on the spool

0 = Without
1 = With

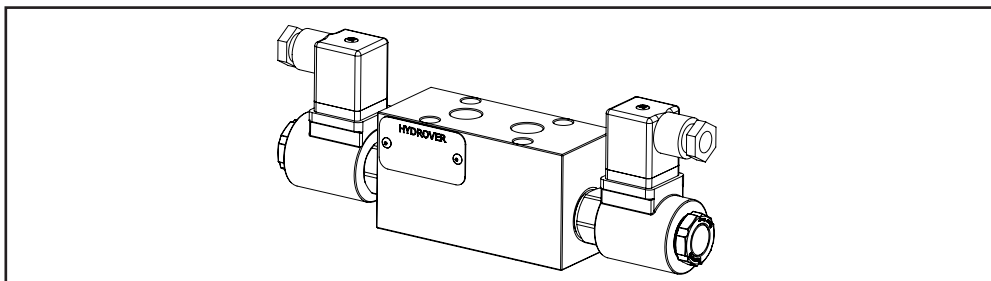
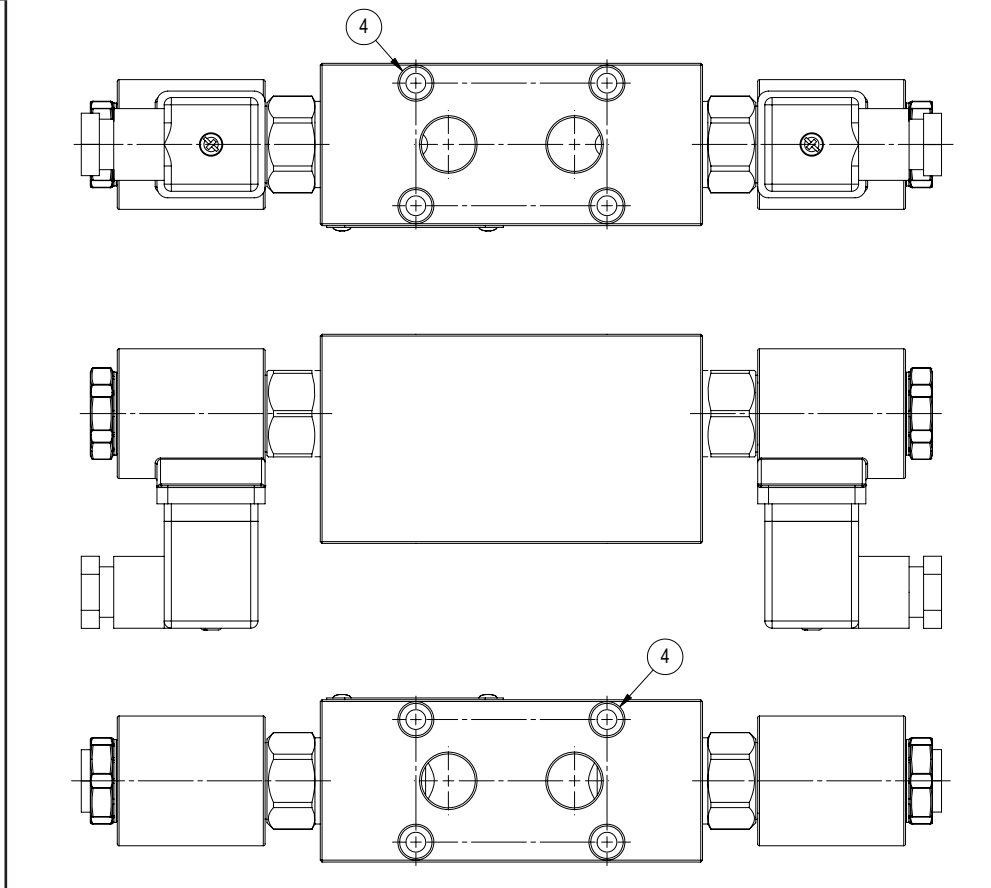
Cracking pressure

1 = 1 bar
8 = 8 bar

Dimensions in mm



Technical data	
Max. pressure	250 bar
Max. flow	40 lpm *
Weight	1,1 Kg
Manifold material	Aluminium



N°	Description	Q.ty
1	Bosch Rexroth solenoid valve VEI-16-08A-NC OD.15-X-18-Y-000000 (normally closed) or VEI-16-08A-NA OD.15-X-18-Y-000000 (normally open) depicted without manual override *	2
2	Bosch Rexroth coil D36 - CLASS H DIN 43650 ISO 4400 *	2
3	Connector DIN 43650 ISO 4400	2
4	Ø 5,5 through hole with counterbore for mounting	4

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue

Ordering code

H 4 9 0 4 A - _ _ - _ _ - _ _

Hydrover product

Product series

49 series - Flangeable elements for Bosch Rexroth ED bankable valves

Product ID

Manifold material

Aluminium

Solenoid valves spool type *

Normally open = NA
 Normally closed = NC
 Normally open double lock = 2A
 Normally closed double lock = 2C

Solenoid valves coil connection *

1 = DIN 43650 ISO 4400

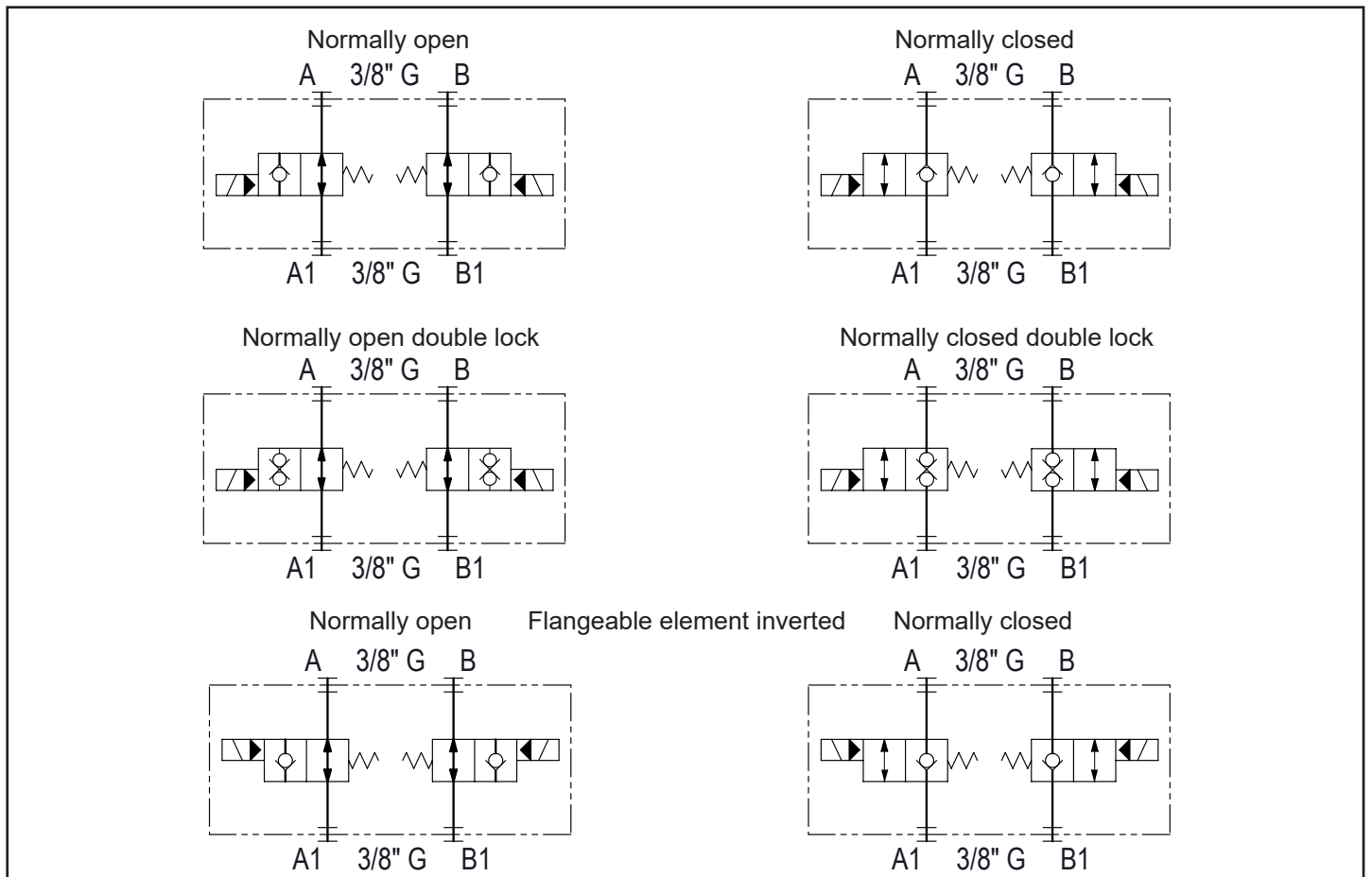
Solenoid valve coil voltage *

OB = 12V DC
 OC = 24V DC
 OD = 48V DC
 OU = 110V RAC
 AH = 230V RAC

Solenoid valves manual override *

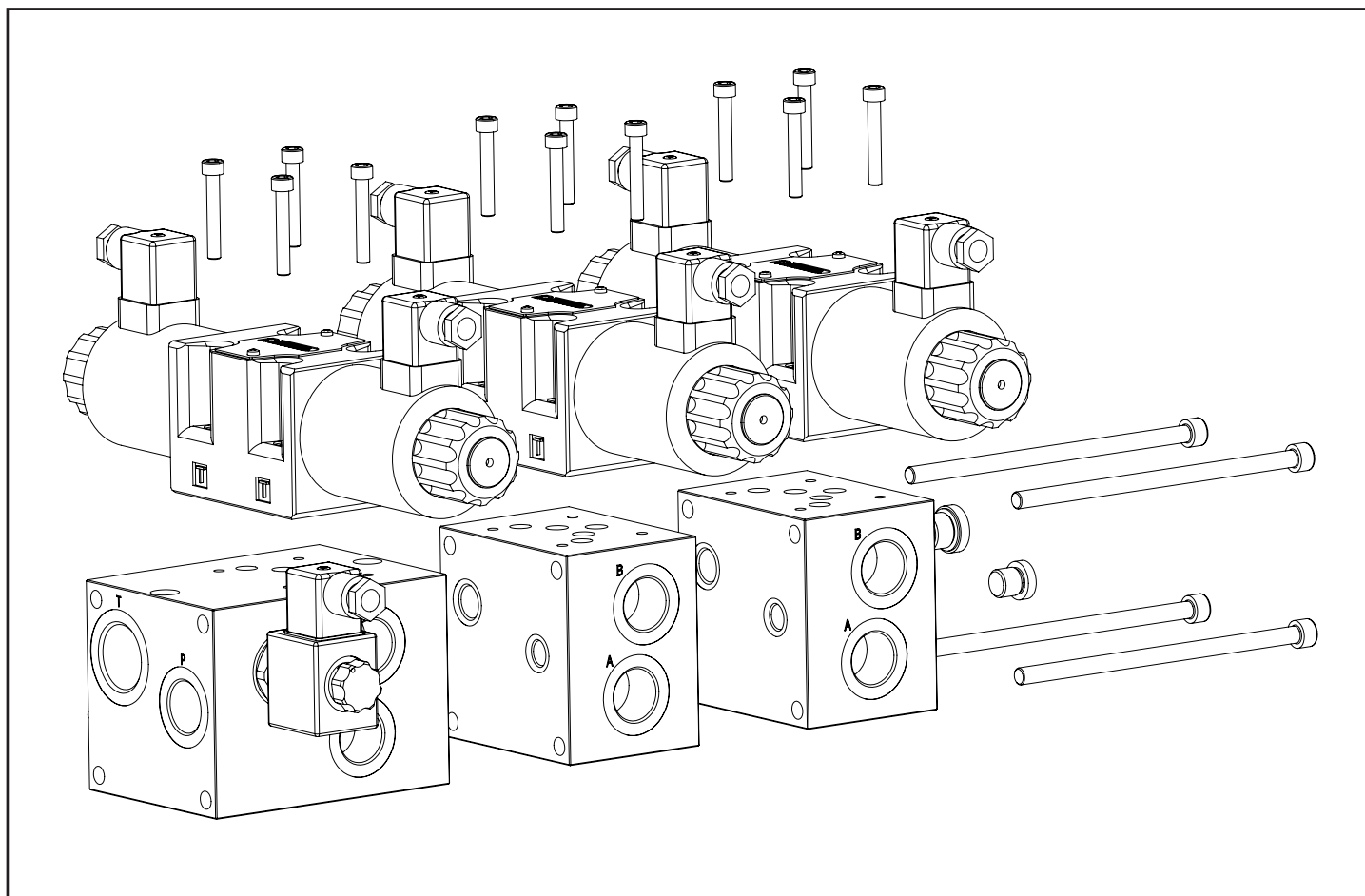
E0 = Without
 EP = Push (NA, 2A)
 EV = Screw (NC, 2C)
 EG = Push and twist (NA, 2A)

* Omit if not required. For example to order the product without the coils, omit the solenoid valves coil voltage and coil connection options: H4904A-NC-E0.



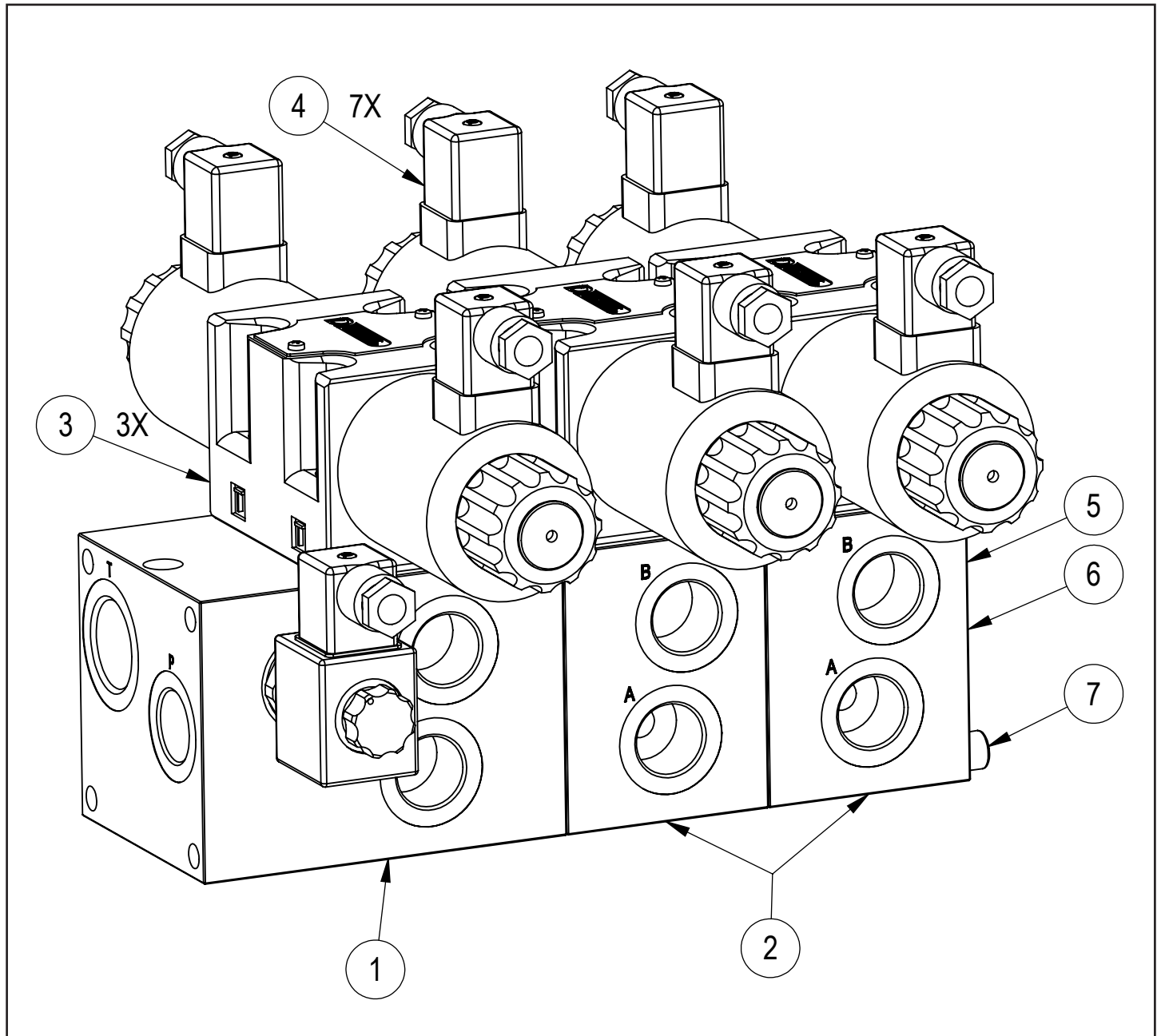
51 SERIES

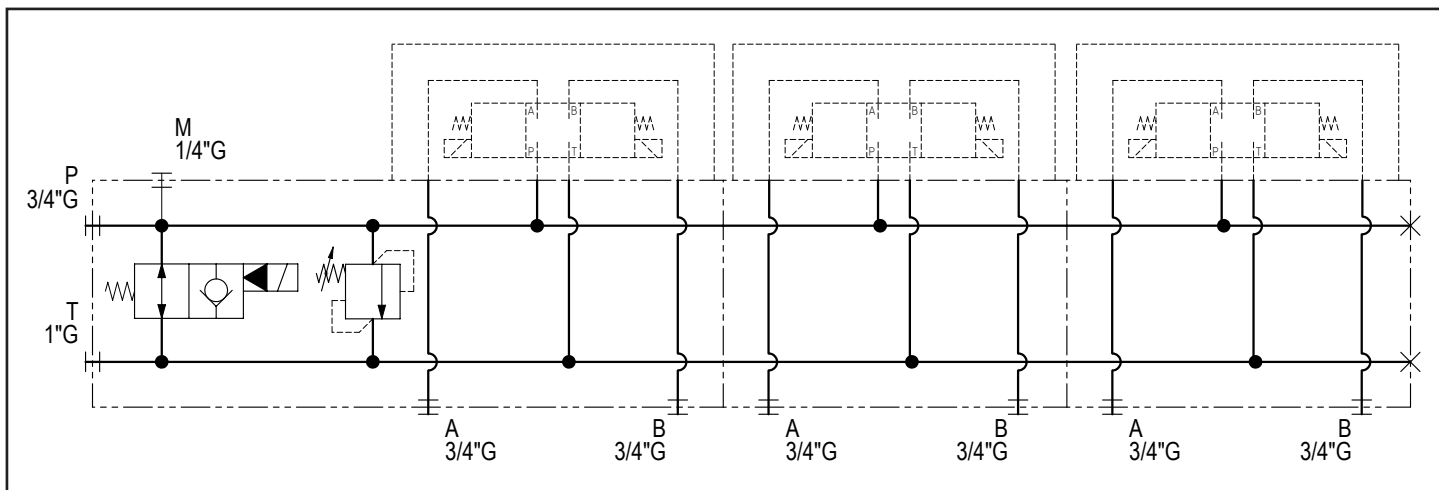
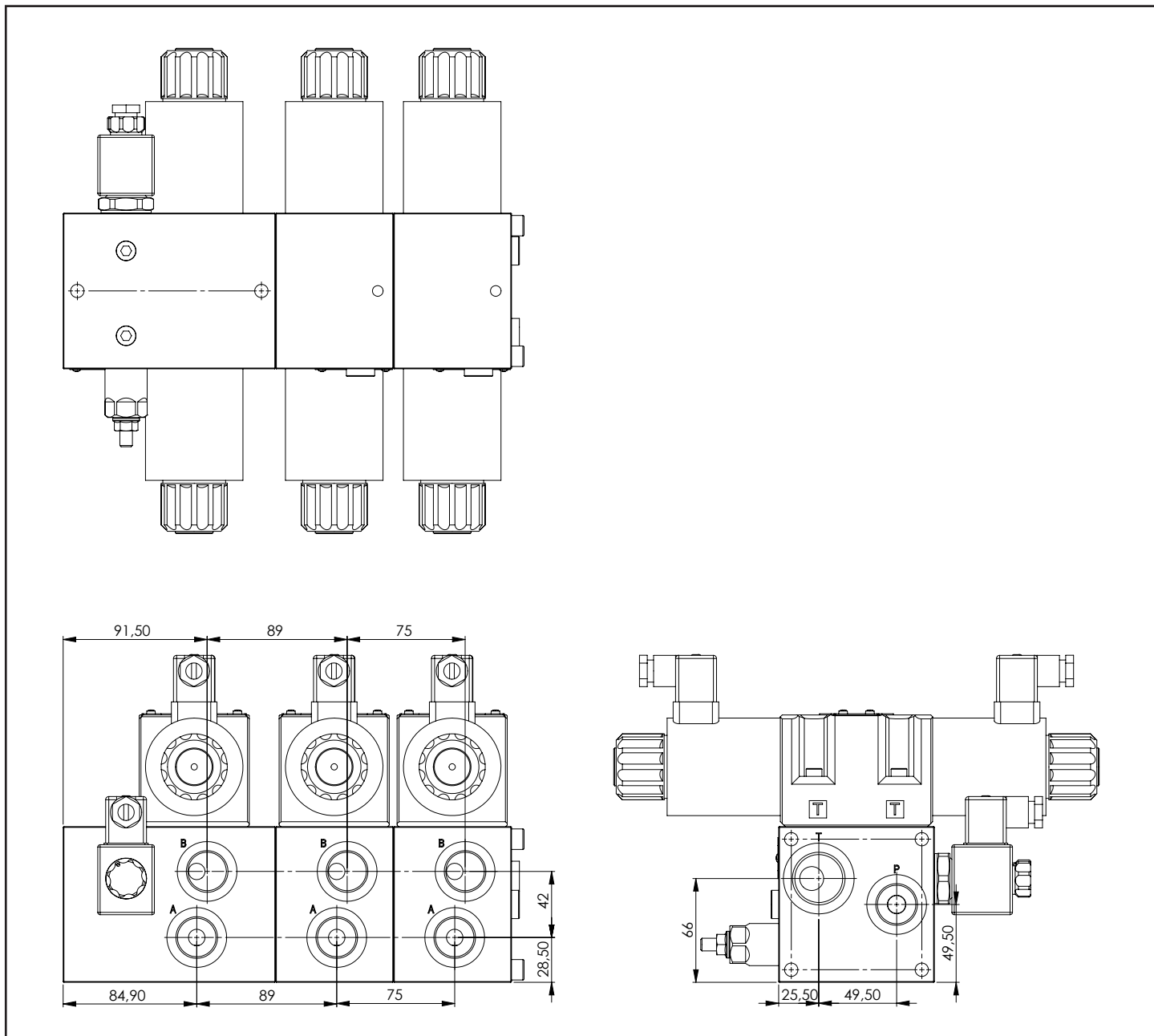
Modular Cetop 5 subplates for parallel circuits

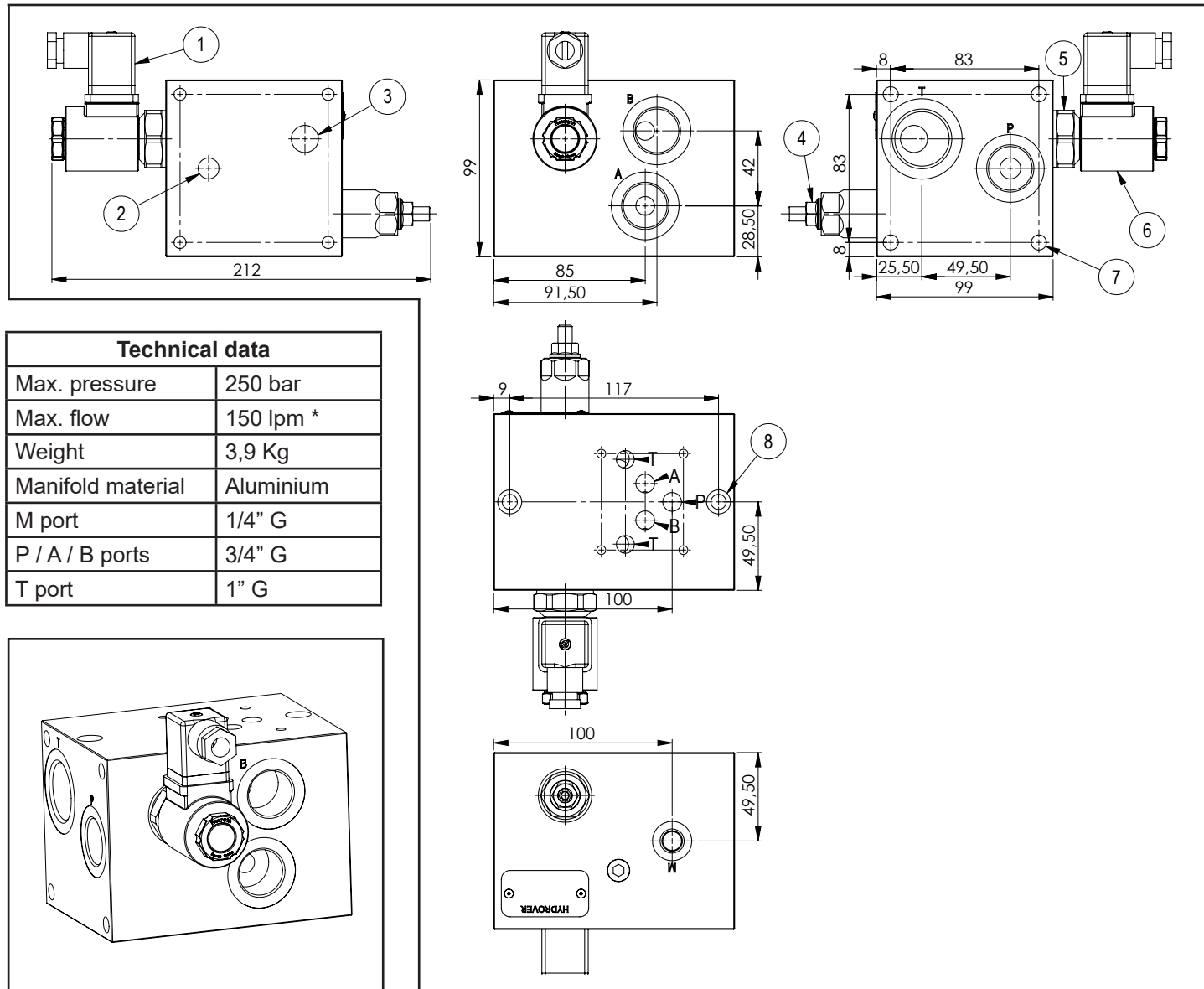


N°	Ordering code	Description	Q.ty
1	H5101A-S2-E0-OC1	CETOP 5 SUBPLATE S51 1 STAT. RV 70-280 BAR EV BYPASS 24V DC DIN 150 LPM AL.	1
2	H5102A	CETOP 5 INT. EL. S51 1 STAT. 3/4" G SIDE A-B PORTS AL.	2
3	CETOP 5 VALVE	CETOP 5 VALVE	3
4	V1389	DIN 43650 ISO 4400 CONNECTOR	7
5	TPCLG3/8	3/8" G PLUG FOR T	1
6	TPCLG1/4	1/4" G PLUG FOR P	1
7	HKVM8X160-4	ASSEMBLING KIT 4 SCREWS M8X160 - S51 2 EL.	1

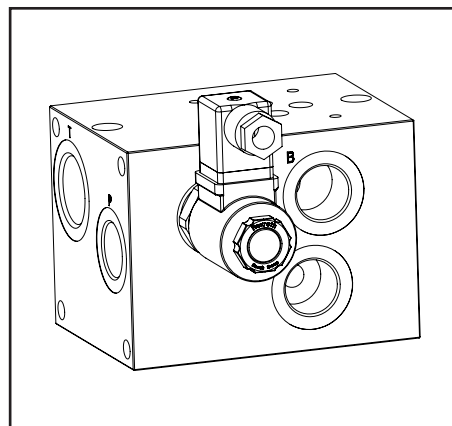
Dimensions in mm





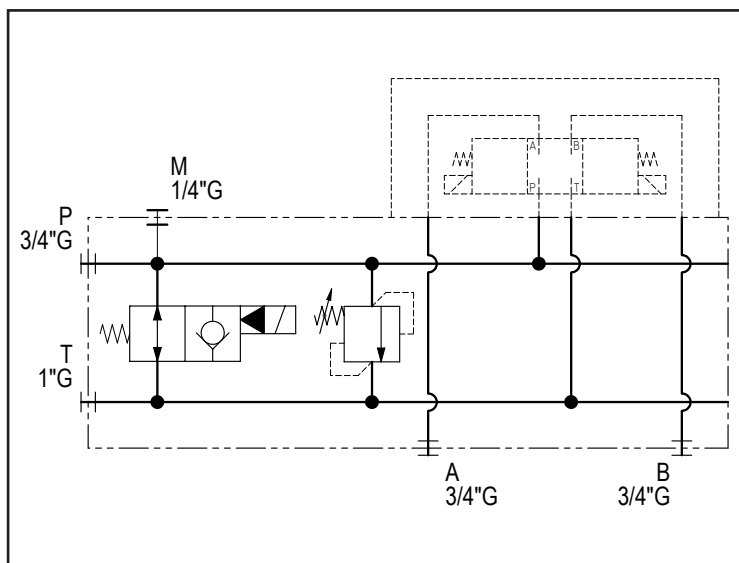


Technical data	
Max. pressure	250 bar
Max. flow	150 lpm *
Weight	3,9 Kg
Manifold material	Aluminium
M port	1/4" G
P / A / B ports	3/4" G
T port	1" G



N°	Description	Q.ty
1	Connector DIN 43650 ISO 4400	1
2	Ø 11,5 through hole with 1/4" G thread (P)	1
3	Ø 15 through hole with 3/8" G thread (T)	1
4	Bosch Rexroth relief valve VSPN-10A * depicted with screw adjustment	1
5	Bosch Rexroth solenoid valve OD.15.06.89-Y-000000 depicted without manual override *	1
6	Bosch Rexroth coil D36 - CLASS H DIN 43650 ISO 4400 *	2
7	M10x15 thread for mounting	4
8	Ø 8,5 through hole for mounting with counterbore	2

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue



Ordering code

H	5	1	0	1	A	-	-	-	-	-	-	-	-	-
---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

Hydrover product

Product series

51 series - Modular Cetop 5 subplates for parallel circuits

Product ID

Manifold material

Aluminium

Relief valve adjustment type

Screw = S
Knob = K

Relief valve adjustment pressure range

35-140 bar = 1
70-280 bar = 2
140-420 bar = 3
35-350 bar (adj. knob) = 3

Solenoid valve coil connection *

1 = DIN 43650
ISO 4400

Solenoid valve coil voltage *

OB = 12V DC
OC = 24V DC
OD = 48V DC
OU = 110V RAC
AH = 230V RAC

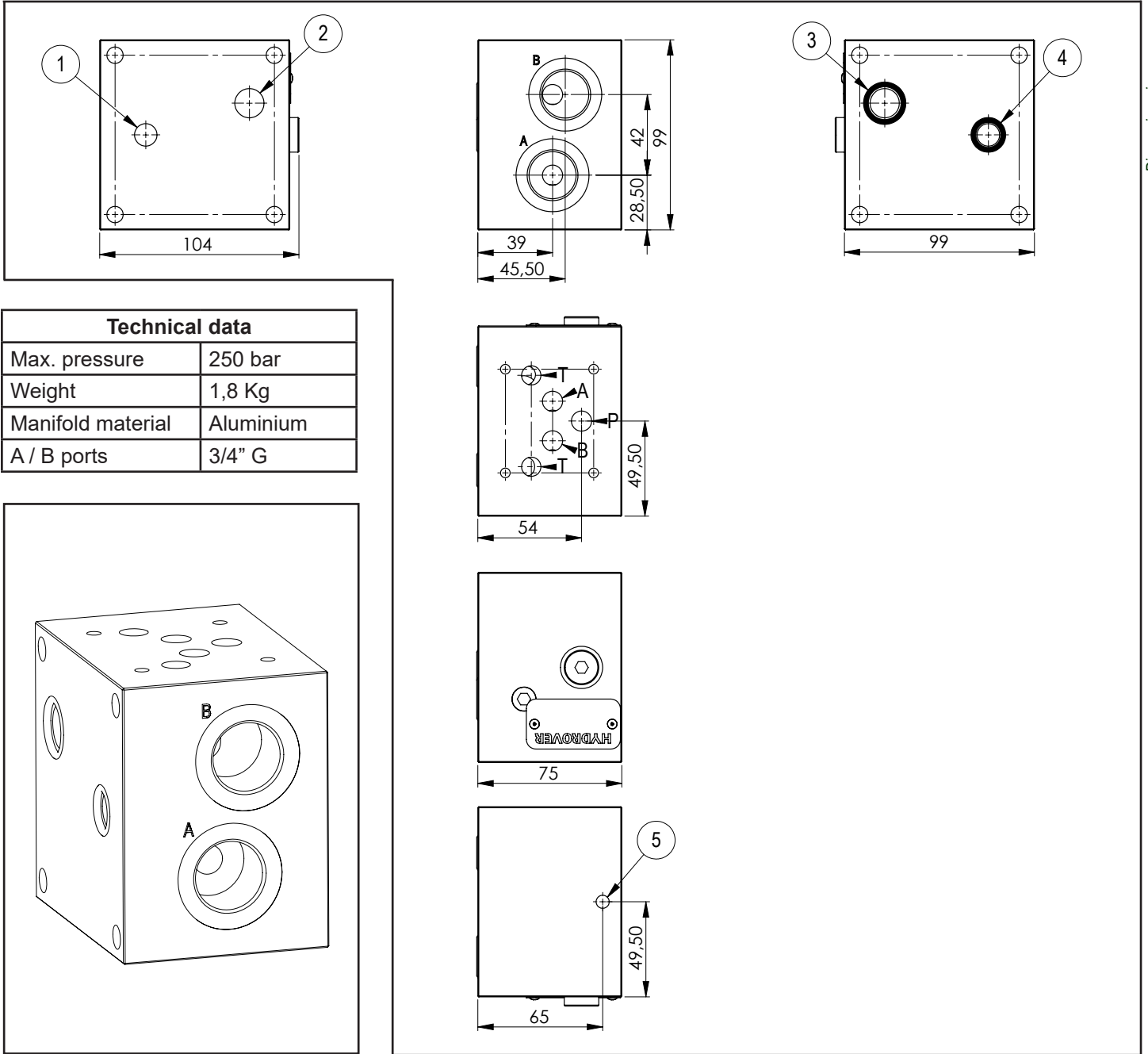
Solenoid valve manual override *

E0 = Without
EP = Push
EG = Push and twist

* Omit if not required. To order the product without the relief cartridge valve, omit the pressure range and adjustment type options: eg. H5101A-E0-OC1.
The manifold will still be provided with the corresponding cavity.
To inhibit the relief cartridge valve, replace the related options with TL: eg. H5101A-TL-E0-OC1.
In the cavity it will be mounted a long plug.

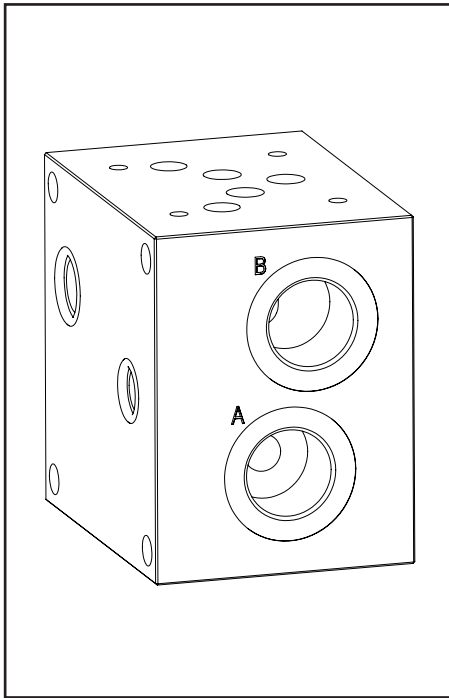
Valve	Cavity	Long plug code
Solenoid valve OD.15.06.89-Y-000000	CA-12A-2N	0489A2005700000
Pressure relief valve VSPN-10A	CA-10A-2N	0489A2008500000

Note: to add stations use the intermediate / closing subplate **H5102**.

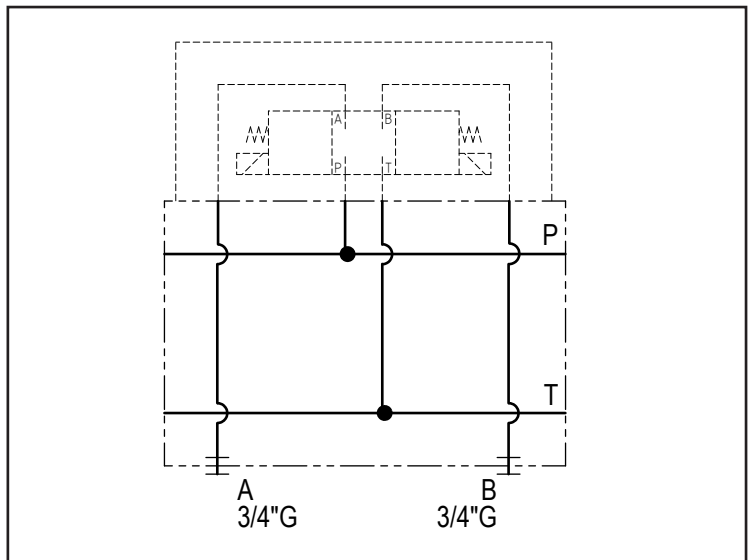


Dimensions in mm

Technical data	
Max. pressure	250 bar
Weight	1,8 Kg
Manifold material	Aluminium
A / B ports	3/4" G



N°	Description	Q.ty
1	Ø 11,5 through hole with 1/4" G thread (P)	1
2	Ø 15 through hole with 3/8" G thread (T)	1
3	OR 3068 Ø i. 17,12 cross section 2,62 (T)	1
4	OR 117 Ø i. 13,10 cross section 2,62 (P)	1
5	M8x15 thread for mounting	1



Ordering code

H	5	1	0	2	A
---	---	---	---	---	---

Hydrover product

Product series

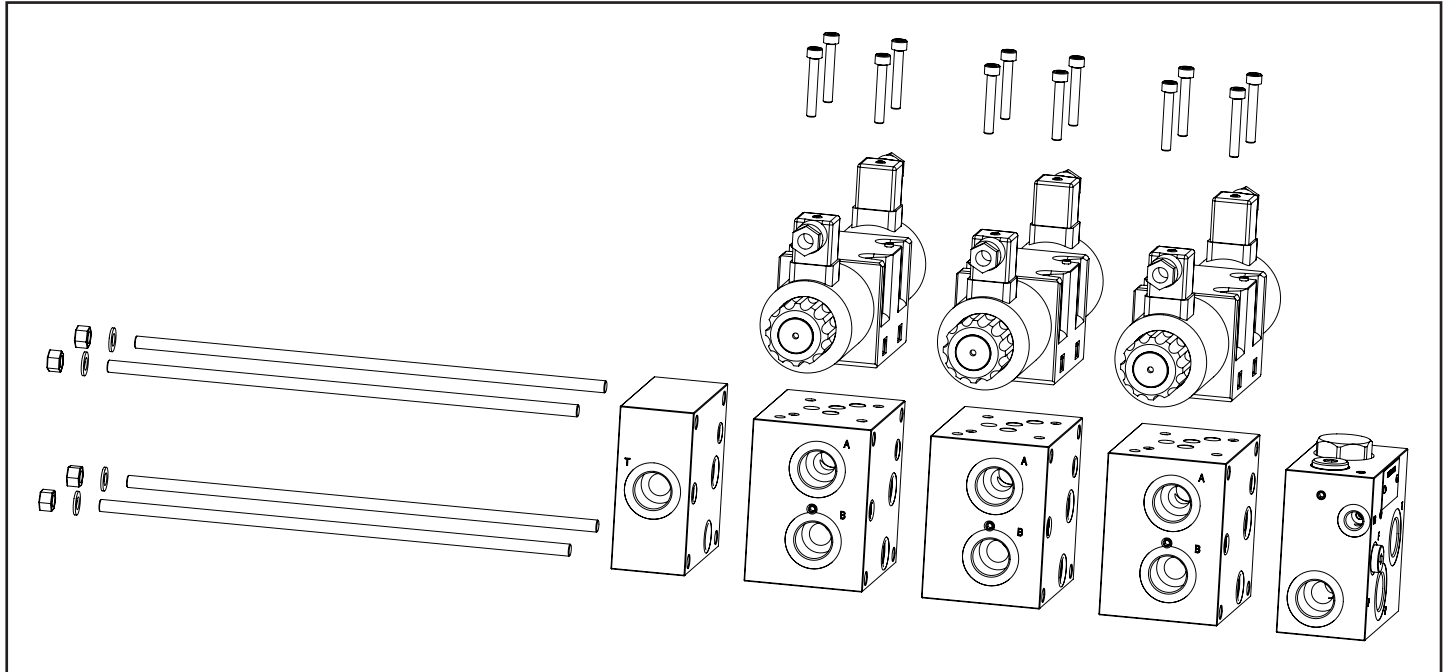
51 series - Modular Cetop 5 subplates for parallel circuits

Manifold material
Aluminium

Product ID

52 SERIES

Load sensing modular Cetop 5 subplates for parallel circuits

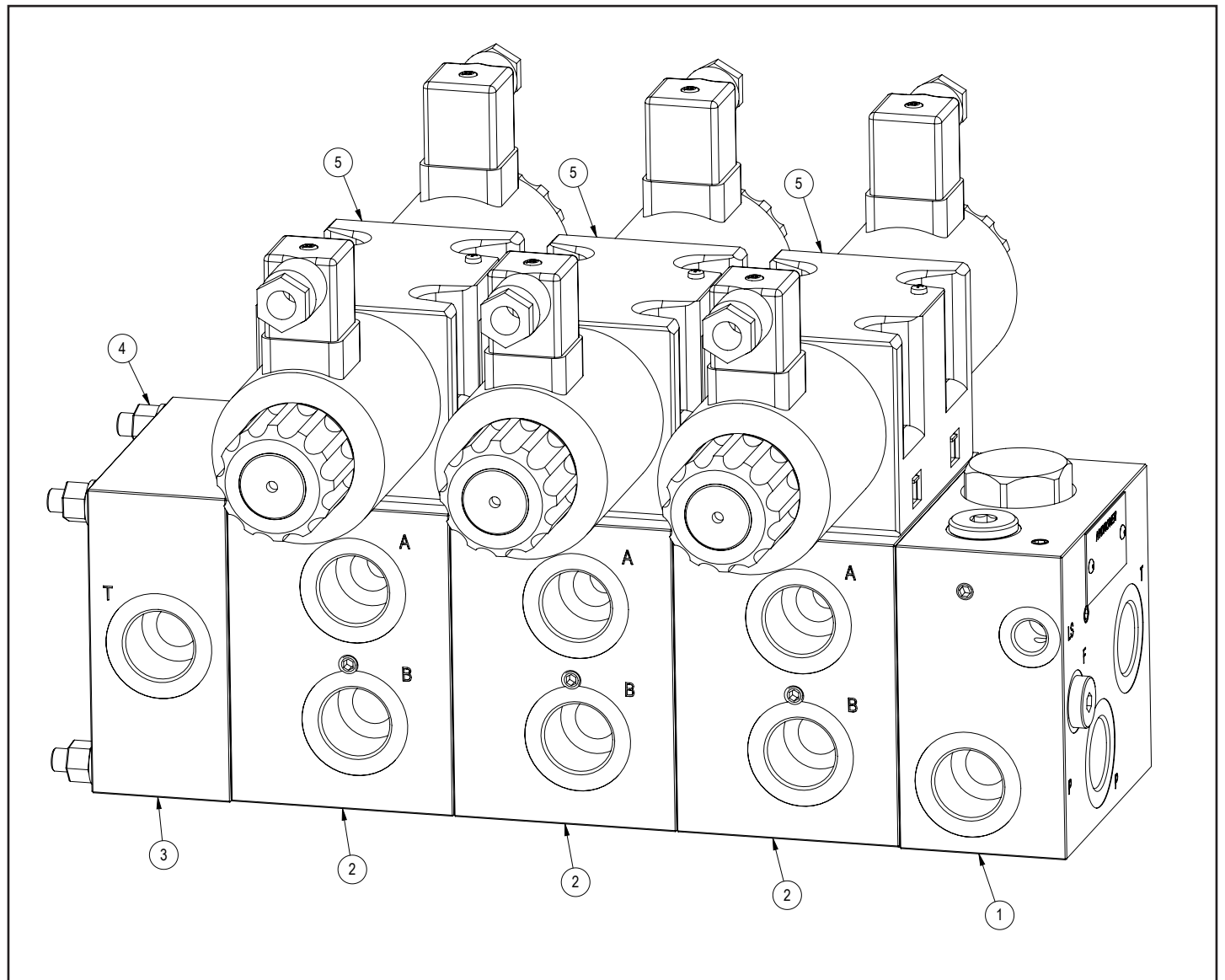


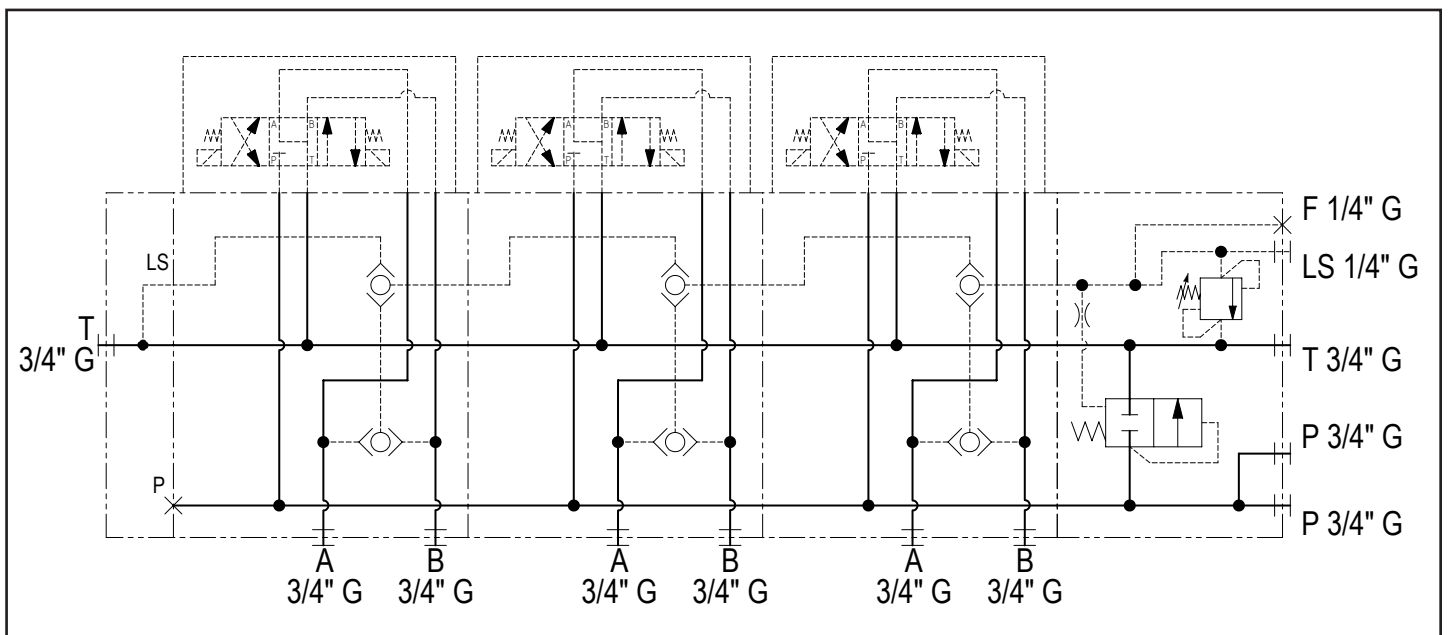
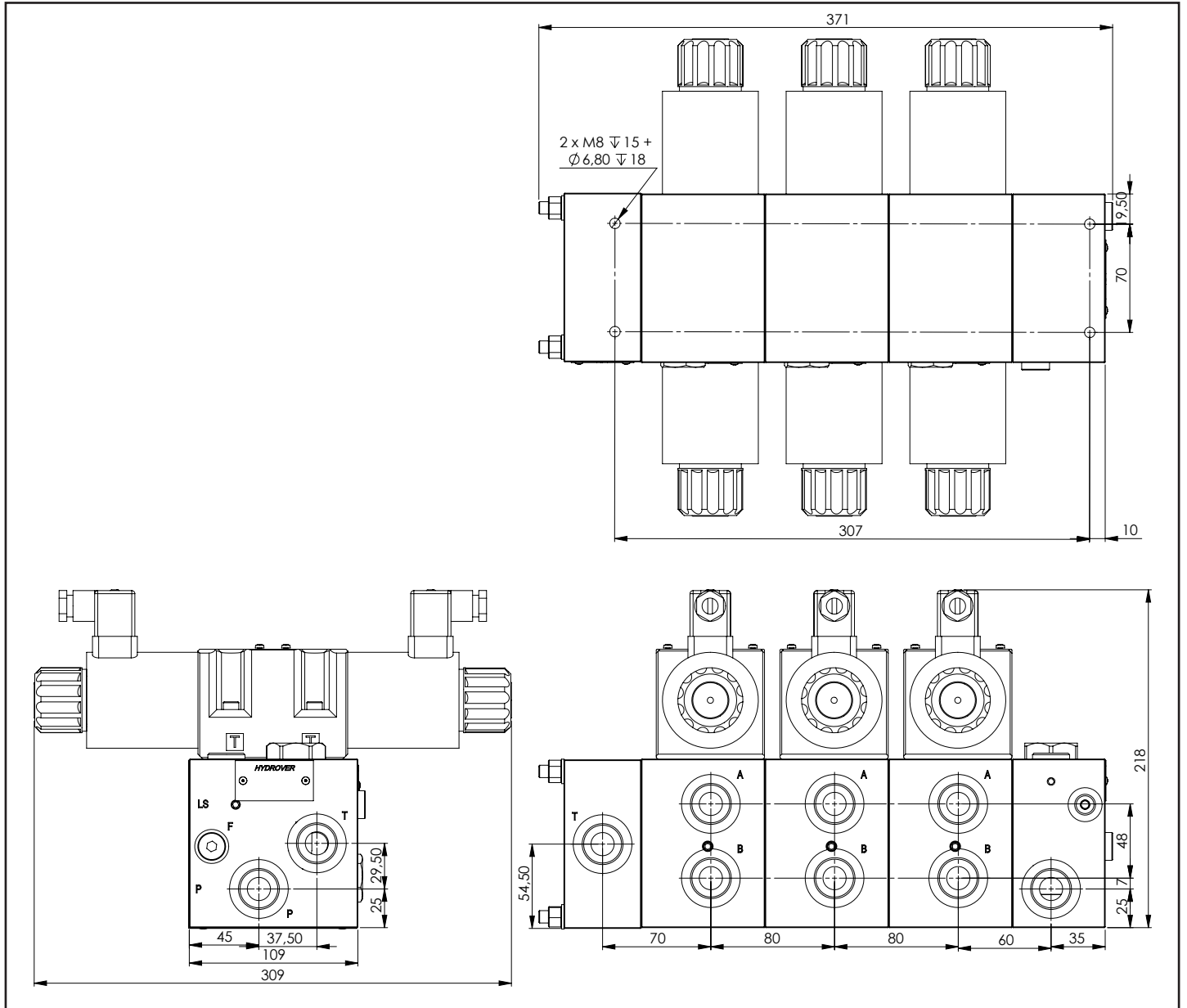
52 SERIES products give you the possibility to build Cetop 5 load sensing systems for variable displacement pumps or gear pumps.

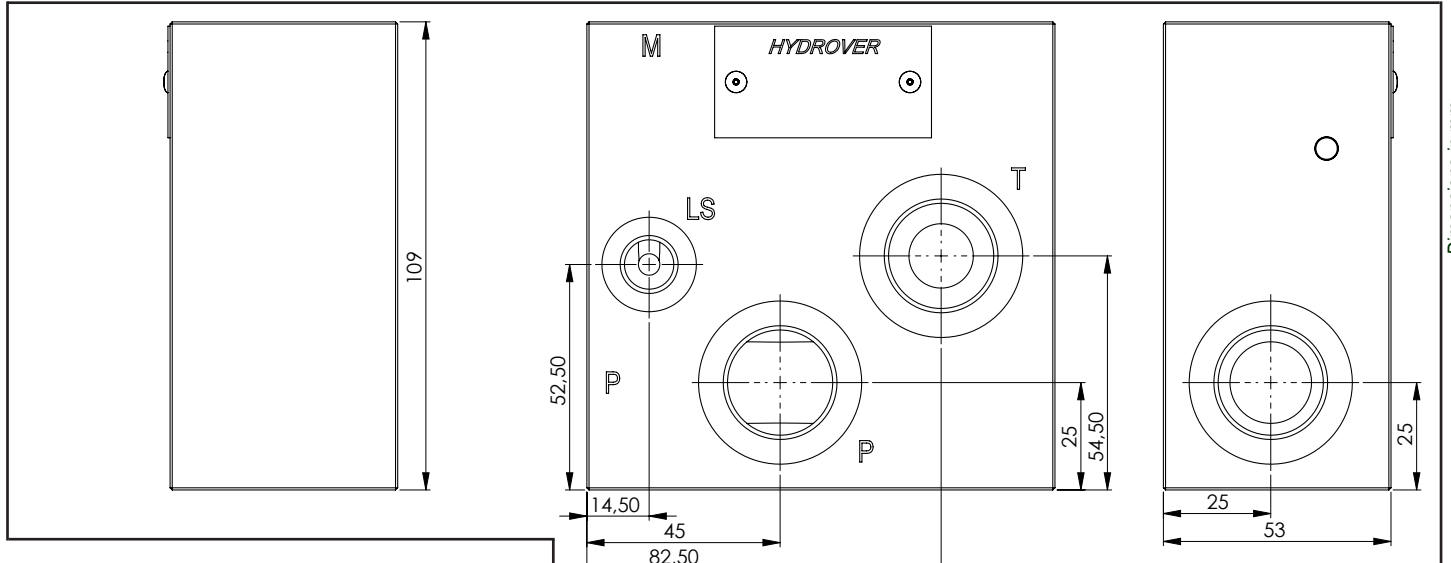
It need Cetop 5 valves with A/B in T in neutral position. So if there is a load to sustain, you will have to add check valves or counterbalance valves. Maximum inlet flow is 150 lpm, maximum operating pressure 250 bar (Aluminium manifolds). We can build on request steel manifolds for a maximum operating pressure of 350 bar.

N°	Ordering code	Description	Q.ty
1	H5204A1TL	CETOP5 S52 LS/FS INLET PLATE COMP. 3 WAYS S. 12.5 BAR 3/4G P-T LS 1/4G PORTS RV LONG PLUG 90 LPM AL.	1
2	H5203A-TC	CETOP5 S52 LS/FS INT. EL. 1 STAT. 3/4G SIDE A-B PORTS AL.	3
3	H5202A	CETOP5 S52 LS/FS INT. EL. 1 STAT. 3/4G SIDE A-B PORTS AL.	1
4	HKTM8X318DS-4	ASSEMBLING KIT	1
5	CETOP 5 VALVE	WITH A-B IN T IN NEUTRAL POSITION	3

Dimensions in mm

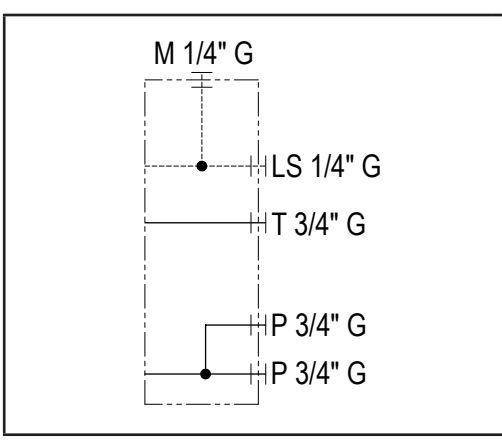
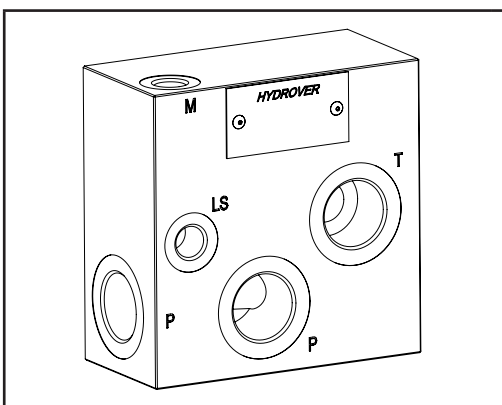




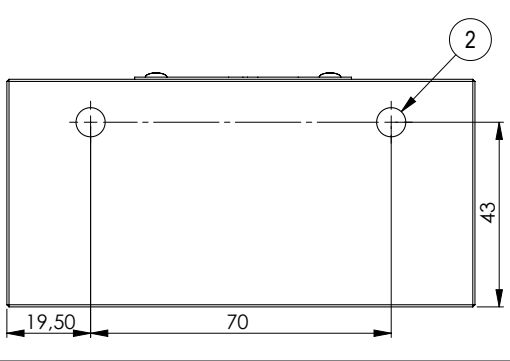
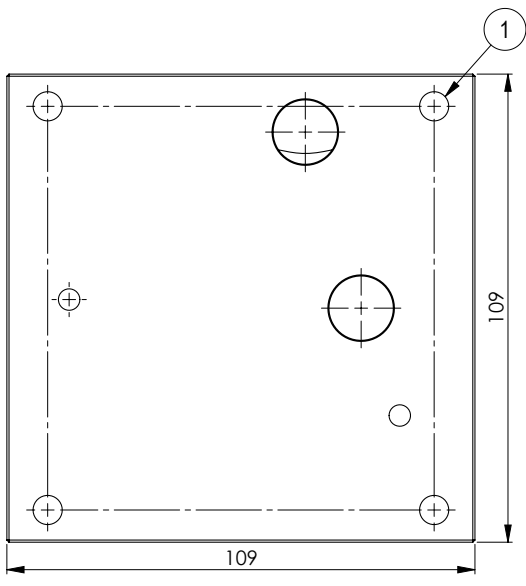
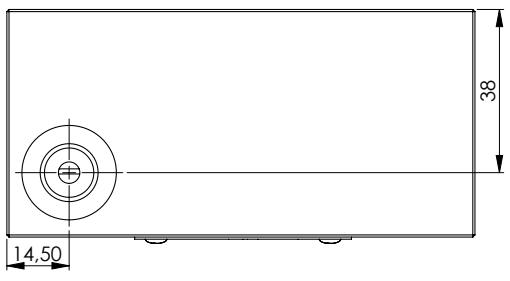


Dimensions in mm

Technical data	
Max. pressure	250 bar
Weight	1,6 Kg
Manifold material	Aluminium
LS / M ports	1/4" G
P / P / T ports	3/4" G



N°	Description	Q.ty
1	M8x12 for tie rod	4
2	M8x15 thread for mounting	2





Ordering code

H	5	2	0	5	A
---	---	---	---	---	---

Hydrover product

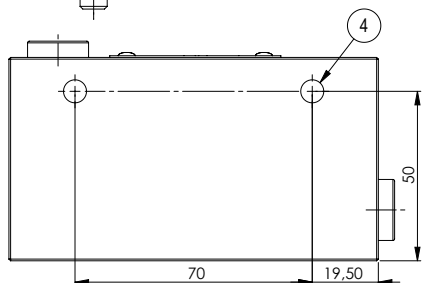
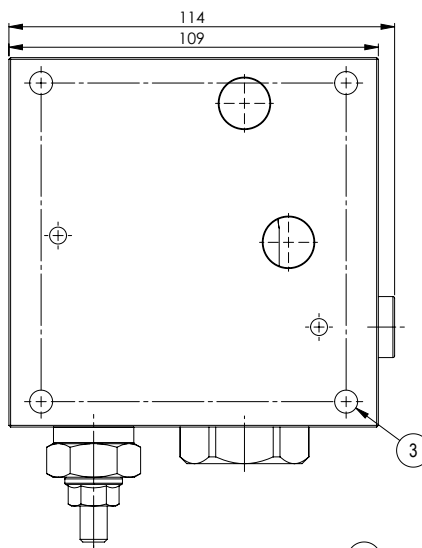
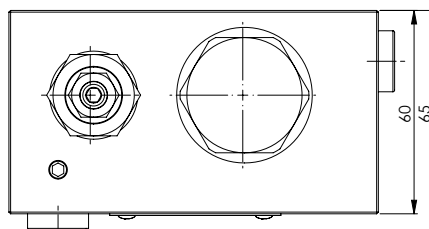
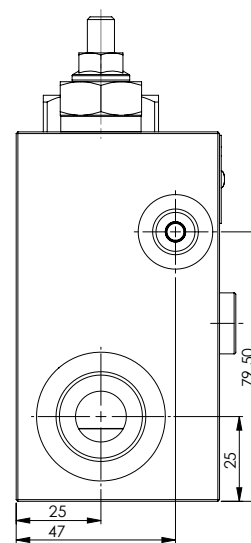
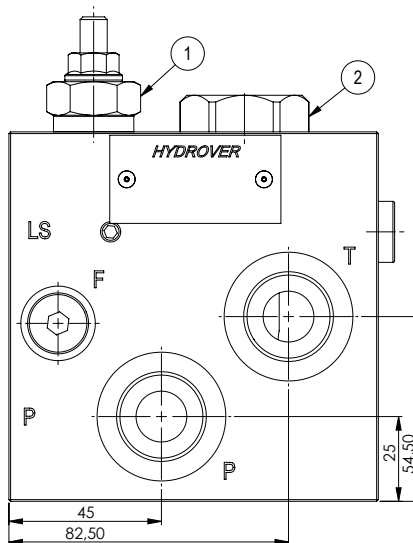
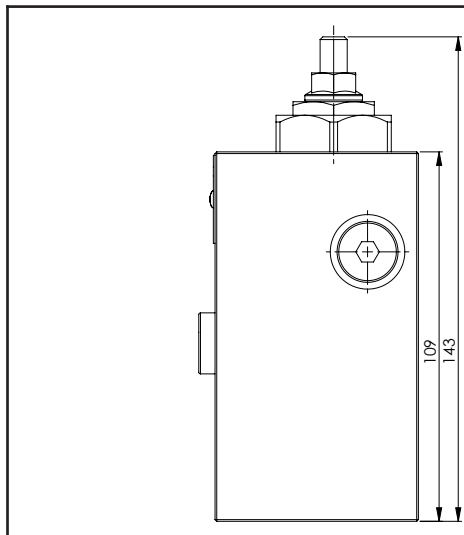
Product series

52 series - Load sensing modular Cetop 5 subplates for parallel circuits

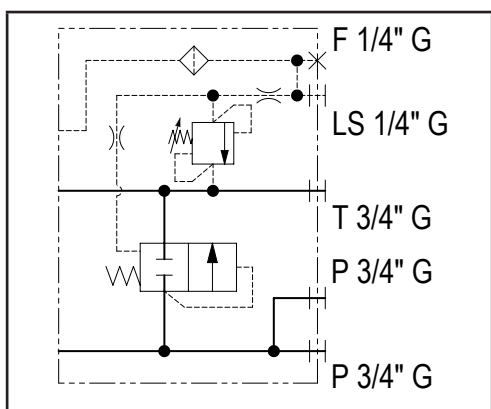
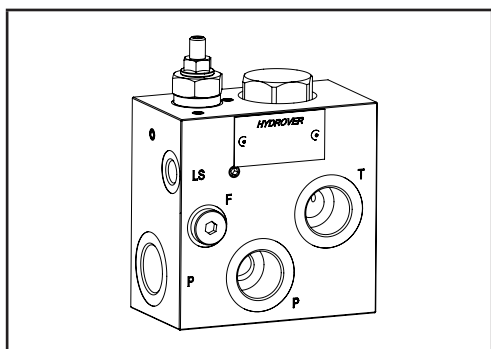
Manifold material
Aluminium

Product ID

Dimensions in mm



Technical data	
Max. pressure	250 bar
Max. flow	150 lpm
Weight	2 Kg
Manifold material	Aluminium
LS port	1/4" G
P / P / T ports	3/4" G



N°	Description	Q.ty
1	Bosch Rexroth relief valve VSBN-08A *	1
2	Pressure compensator	1
3	M8x12 for tie rod	4
4	M8x15 thread for mounting	2

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue

Ordering code

H	5	2	0	4	A	-	-	-
---	---	---	---	---	---	---	---	---

Hydrover product

Product series

52 series - Load sensing modular Cetop 5 subplates for parallel circuits

Product ID

Manifold material

Aluminium

Relief valve adjustment pressure range *

- 0 = 10-70 bar
- 1 = 35-140 bar
- 2 = 105-210 bar
- 3 = 175-350 bar
- 3 = 35-350 bar (knob reg.)

Relief valve adjustment type *

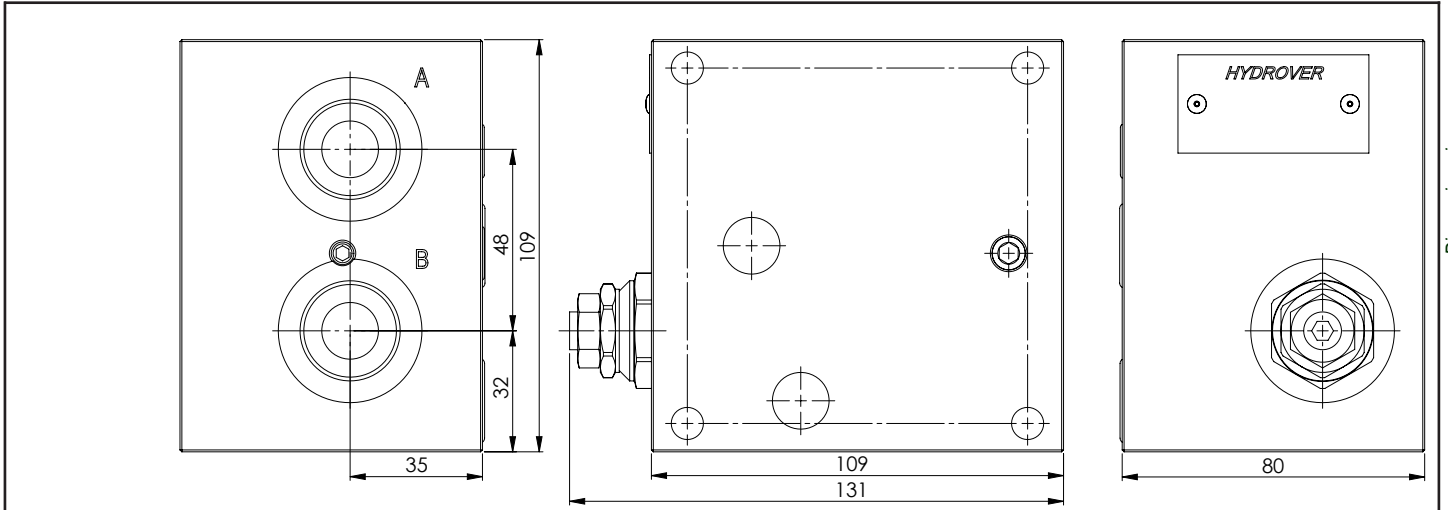
- S = Screw
- K = Knob

Compensator spring

- 6 = 5.5 bar (standard)
- 1 = 12.5 bar
- 2 = 19 bar

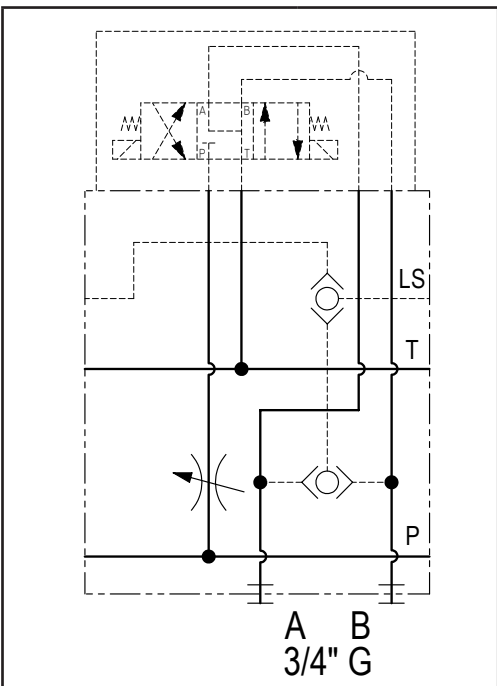
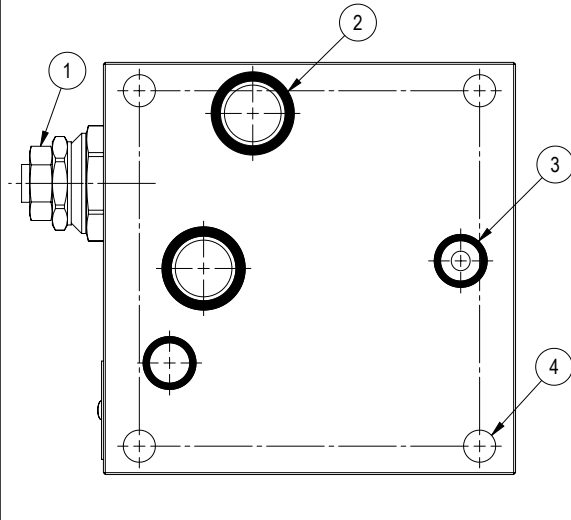
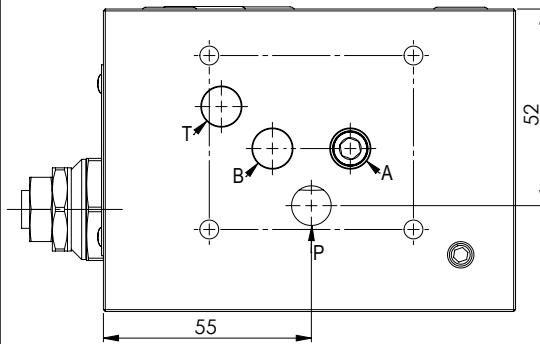
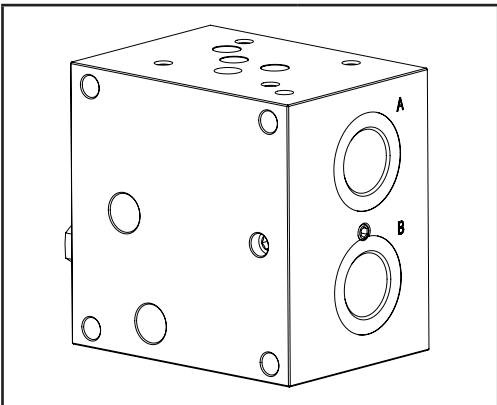
* Omit if not required. To order the product without the pressure relief cartridge valve, omit the adjustment type and pressure range options: eg H5204A6.
 The manifold will still be provided with the corresponding cavity.
 To inhibit the relief valve, replace the related options with TL: eg H5204A6TL.
 In the cavity it will be mounted a long plug.

Valve	Cavity	Long plug code
Pressure relief valve VSBN-08A	CA-08A-2N	0489A200560000



Dimensions in mm

Technical data	
Max. pressure	250 bar
Regulated max. flow	70 lpm *
Weight	2,5 Kg
Manifold material	Aluminium
A / B ports	3/4" G



N°	Description	Q.ty
1	Bosch Rexroth bidirectional flow restrictor OD.21.01-X-36 * depicted with screw adjustment	1
2	OR 3068 i. Ø 17,12 cross section 2,62 (P-T)	2
3	OR 2043 i. Ø 10,82 cross section 1,78(LS-FS)	2
4	Ø 8,5 through hole for tie rod	4

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue

Ordering code

H	5	2	0	3	A	-	
---	---	---	---	---	---	---	--

Hydrover product

Product series

52 series - Load sensing modular Cetop 5 subplates for parallel circuits

Product ID

Manifold material

Aluminium

Restrictor adjustment type *

SQ =

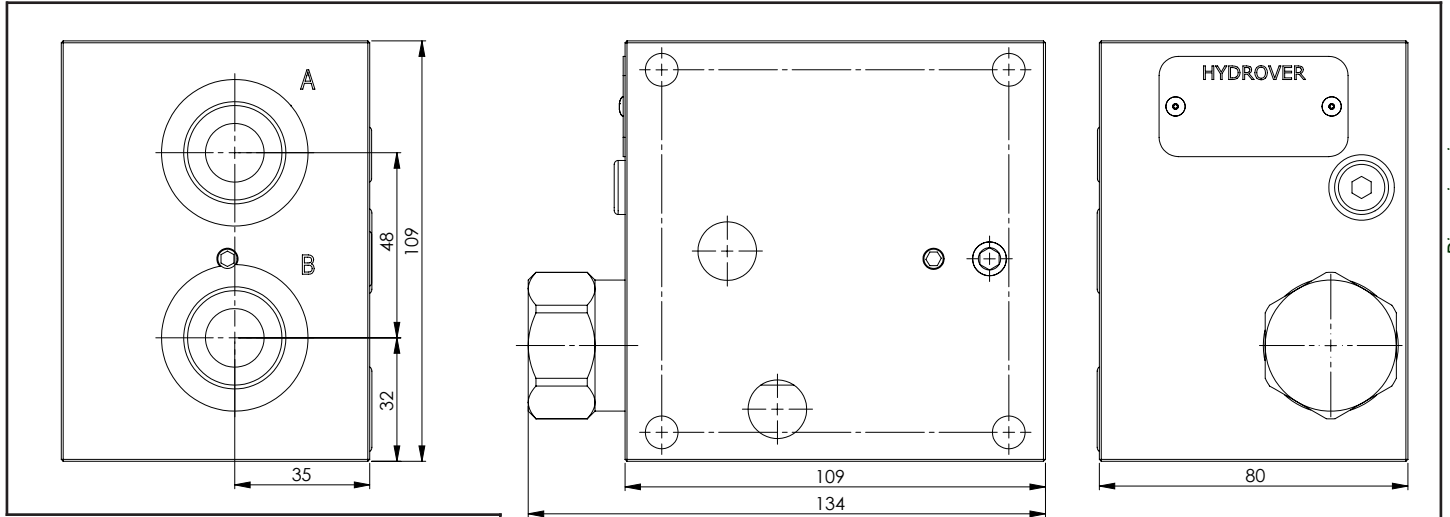
Screw

KQ =

Knob

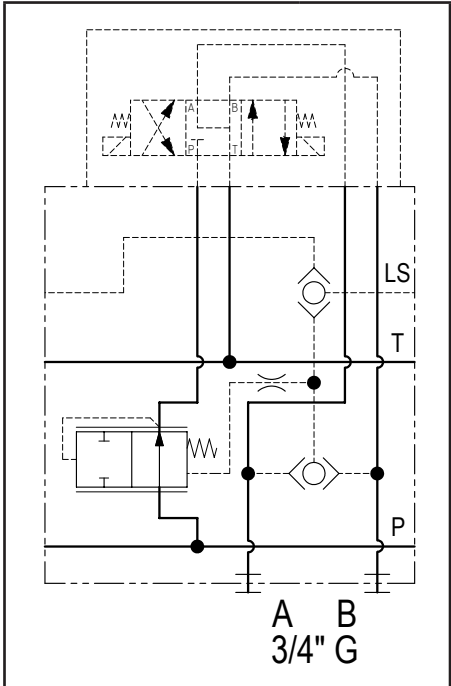
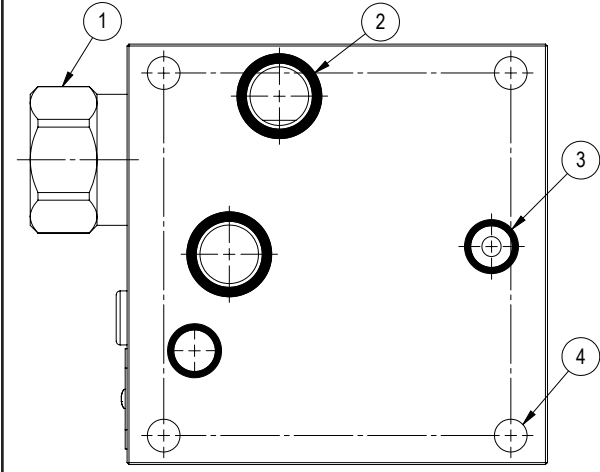
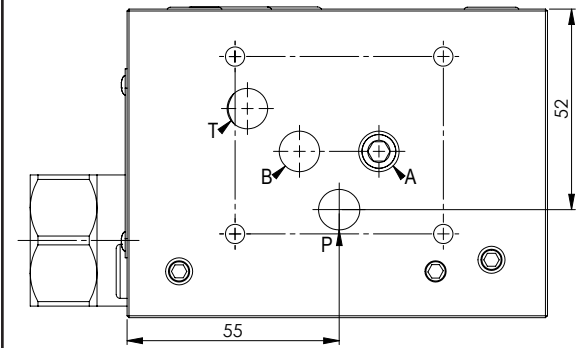
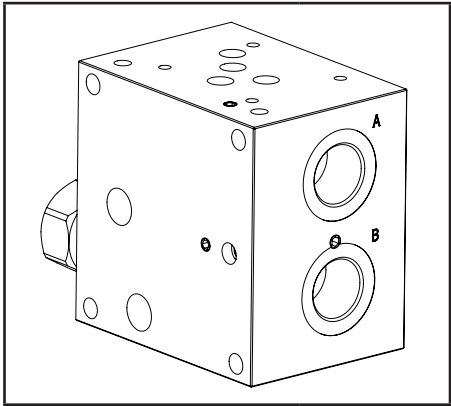
* Omit if not required. To order the product without the flow restrictor cartridge valve, omit restrictor adjustment type option: H5203A. The manifold will still be provided with the corresponding cavity.
 To inhibit the flow restrictor cartridge valve, replace the related option with TC: eg H5203A-TC.
 In the cavity it will be mounted a short plug.

Valve	Cavity	Short plug code
Bidirectional flow restrictor OD.21.01-X-36	CA-10A-2N	207505-7/8UNF



Dimensions in mm

Technical data	
Max. pressure	250 bar
Max. flow	80 lpm
Weight	2,7 Kg
Manifold material	Aluminium
A / B ports	3/4" G



N°	Description	Q.ty
1	2 way compensator 5,5 bar spring	1
2	OR 3068 i. Ø 17,12 cross section 2,62 (P-T)	2
3	OR 2043 i. Ø 10,82 cross section 1,78(LS-FS)	2
4	Ø 8,5 through hole for tie rod	4



Ordering code

H	5	2	1	3	A
---	---	---	---	---	---

Hydrover product

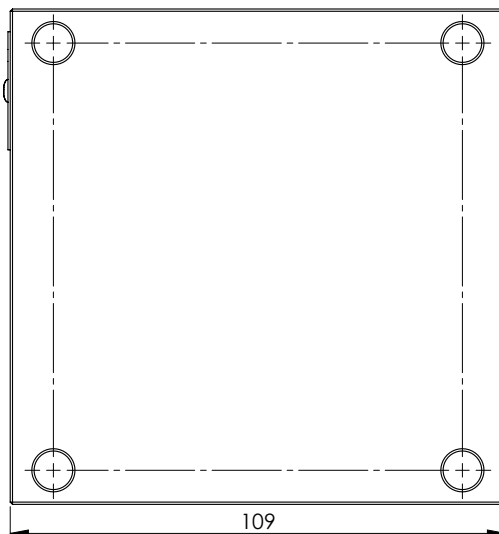
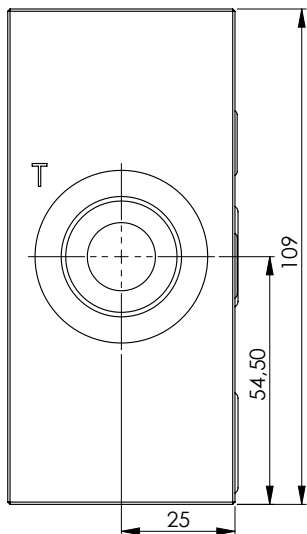
Product series

52 series - Load sensing modular Cetop 5 subplates for parallel circuits

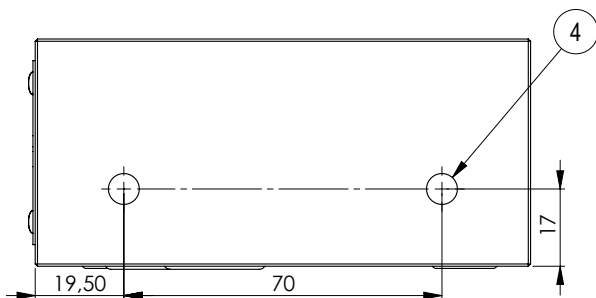
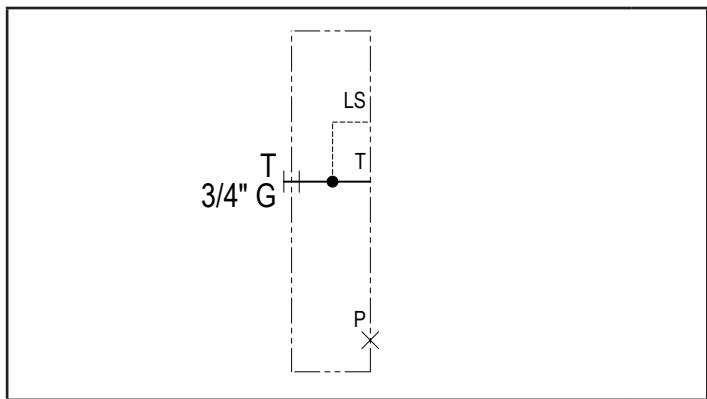
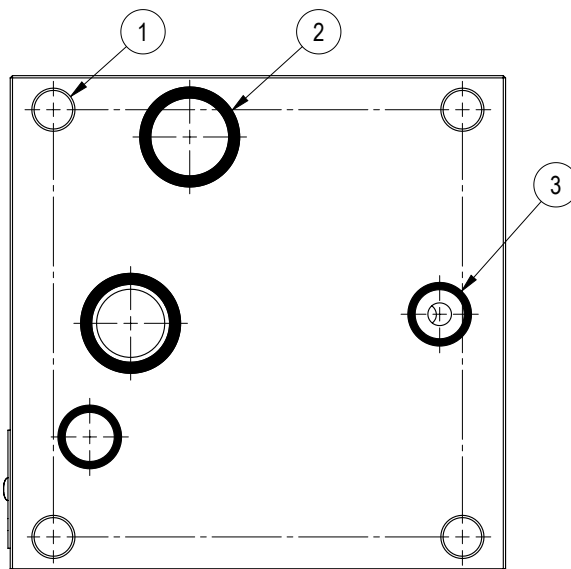
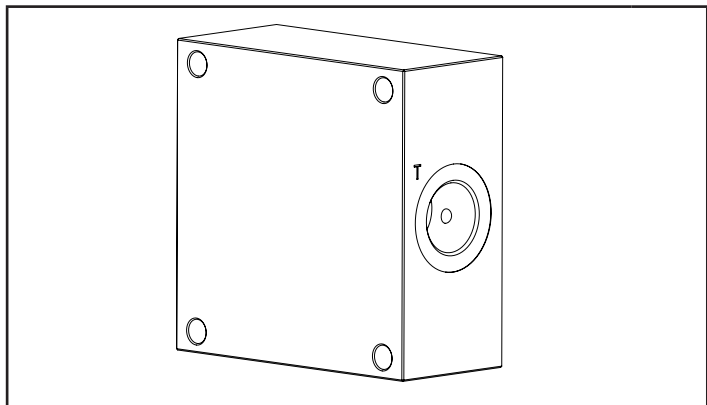
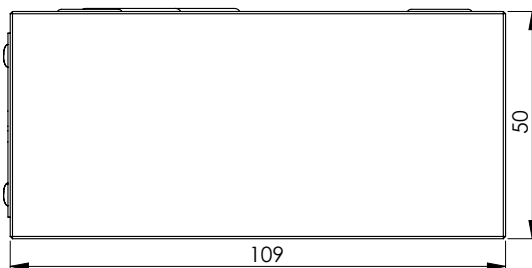
Manifold material
Aluminium

Product ID

Dimensions in mm



Technical data	
Max. pressure	250 bar
Weight	1,6 Kg
Manifold material	Aluminium
T port	3/4" G



N°	Description	Q.ty
1	Ø 8,5 through hole for tie rod	4
2	OR 3068 i. Ø 17.12 cross section 2.62 (P-T)	2
3	OR 2043 i. Ø 10,82 cross section 1,78(LS-FS)	2
5	M8x15 thread for mounting	2

Ordering code

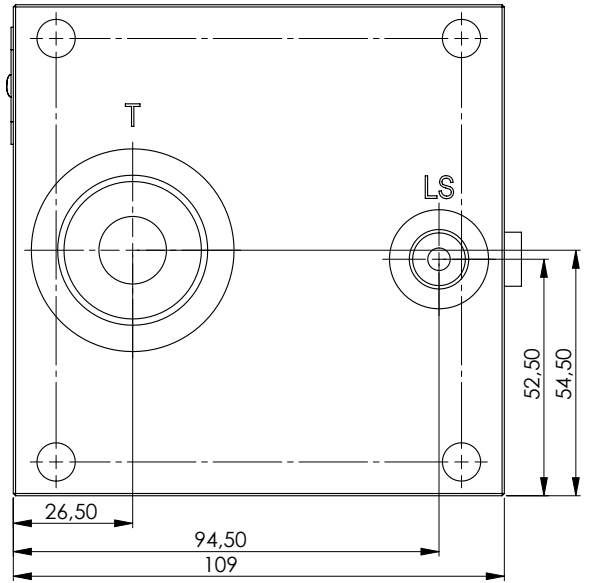
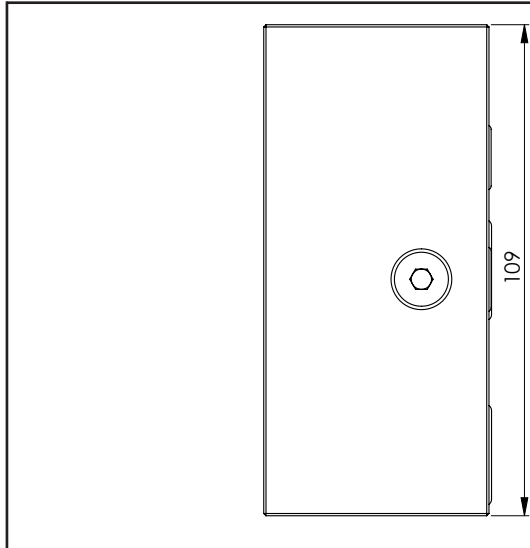
H	5	2	0	2	A
---	---	---	---	---	---

Hydrover product**Product series**

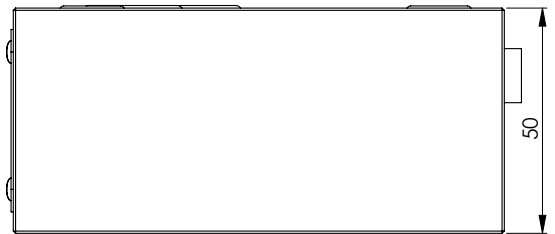
52 series - Load sensing modular Cetop 5 subplates for parallel circuits

Manifold material
Aluminium**Product ID**

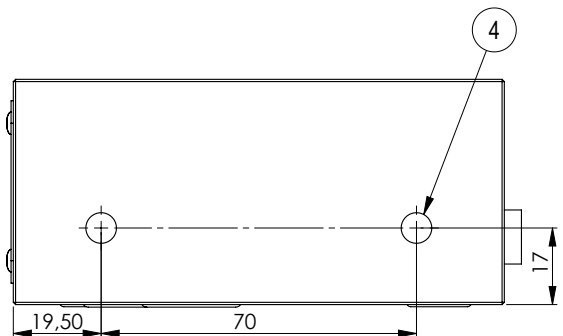
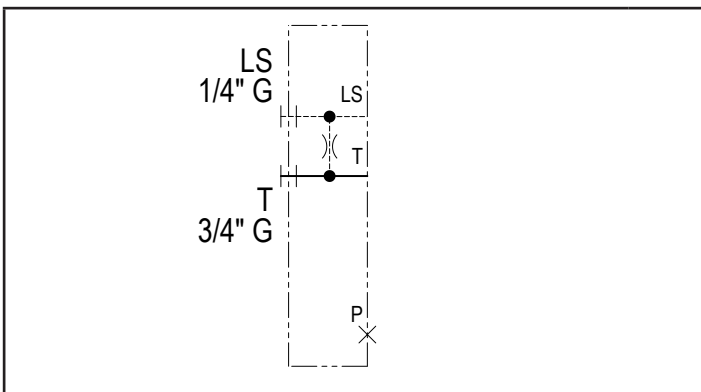
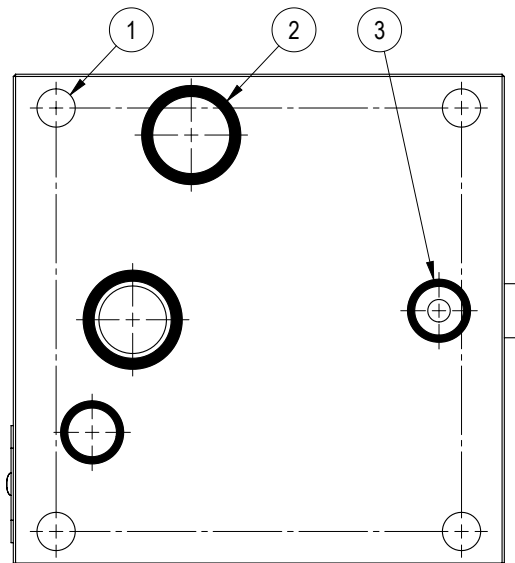
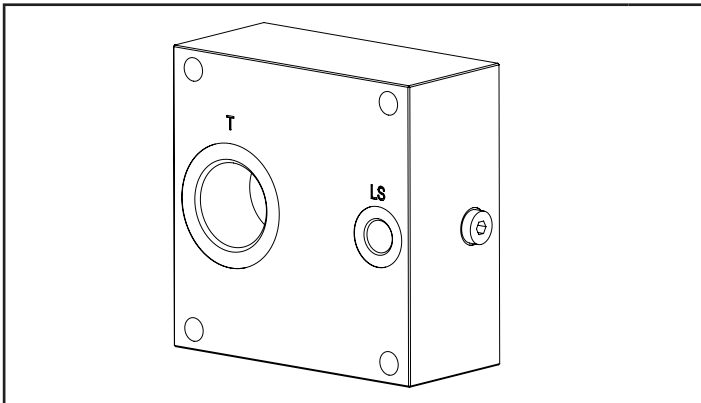
Note: this closing plate can be used like a blank closing plate. For that just screw a 3/4" G plug in the T port.



Dimensions in mm



Technical data	
Max. pressure	250 bar
Weight	1,6 Kg
Manifold material	Aluminium
LS port	1/4" G
T port	3/4" G



N°	Description	Q.ty
1	Ø 8,5 through hole for tie rod	4
2	OR 3068 i. Ø 17,12 cross section 2,62 (P-T)	2
3	OR 2043 i. Ø 10,82 cross section 1,78(LS-FS)	2
5	M8x15 thread for mounting	2



Ordering code

H	5	2	0	9	A
---	---	---	---	---	---

Hydrover product

Product series

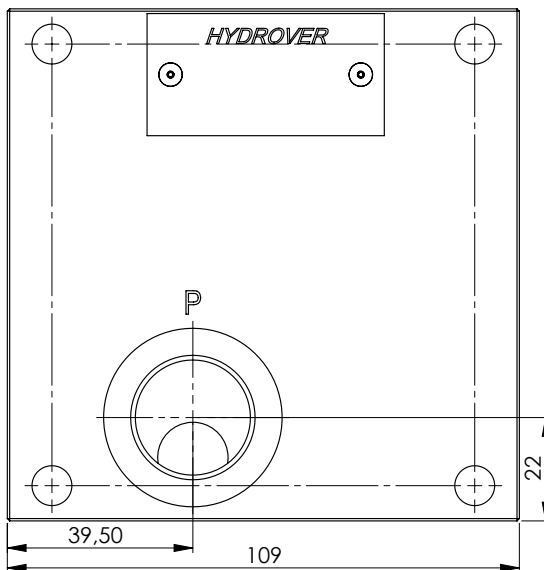
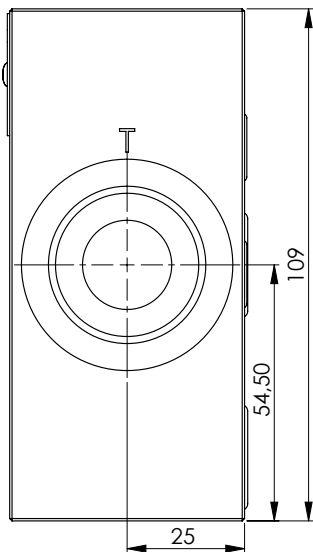
52 series - Load sensing modular Cetop 5 subplates for parallel circuits

Manifold material
Aluminium

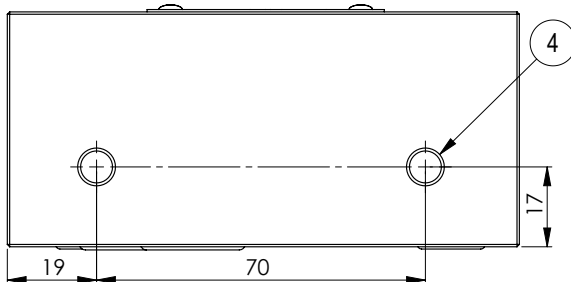
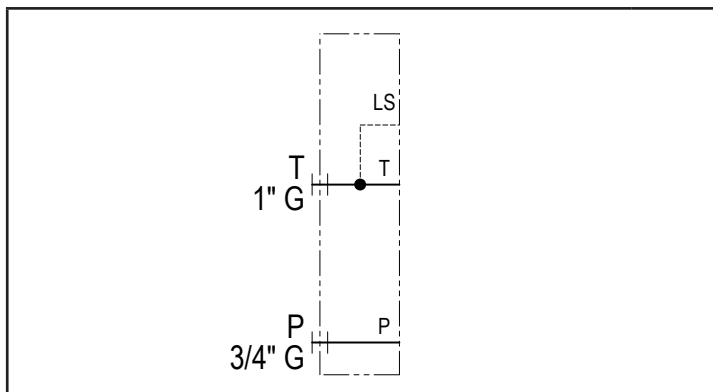
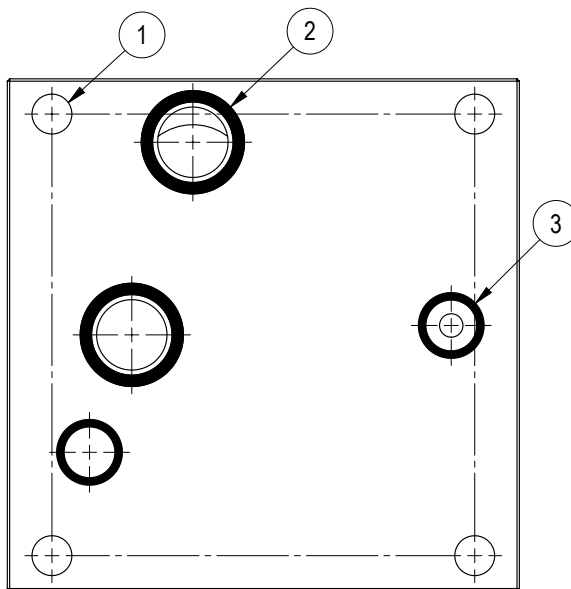
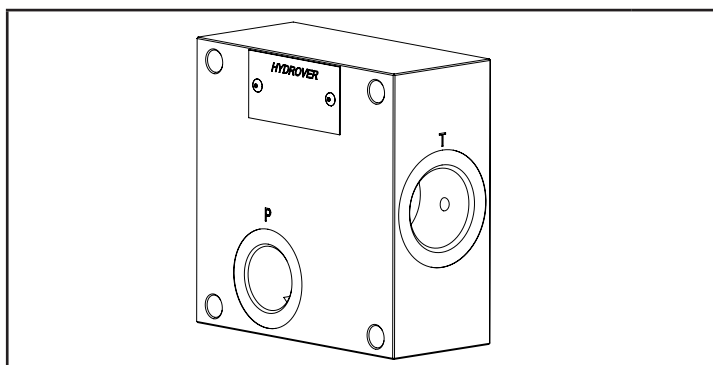
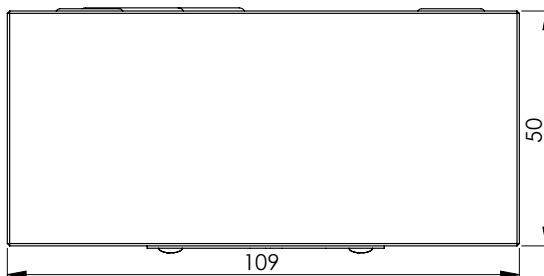
Product ID

Note: this closing plate can be used like a blank closing plate. For that just screw a 3/4" G plug in the T port.

Dimensions in mm



Technical data	
Max. pressure	250 bar
Weight	1,5 Kg
Manifold material	Aluminium
P port	3/4" G
T port	1" G



N°	Description	Q.ty
1	Ø 8,5 through hole for tie rod	4
2	OR 3068 i. Ø 17,12 cross section 2,62 (P-T)	2
3	OR 2043 i. Ø 10,82 cross section 1,78(LS-FS)	2
4	M8x15 thread for mounting	2

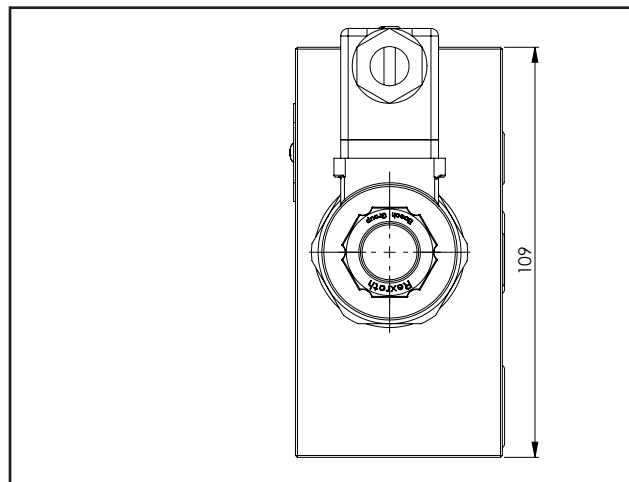
Ordering code

H	5	2	0	7	A
---	---	---	---	---	---

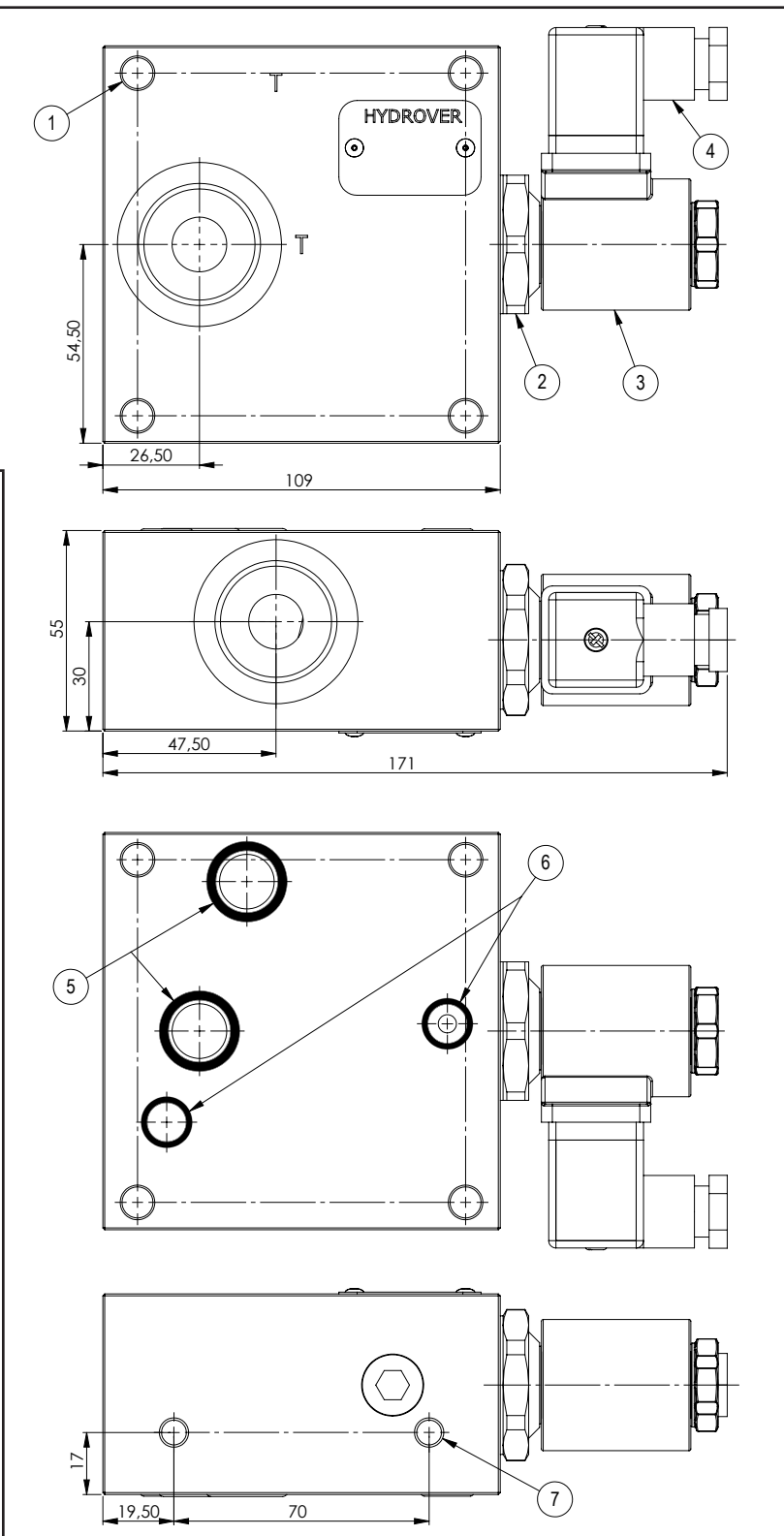
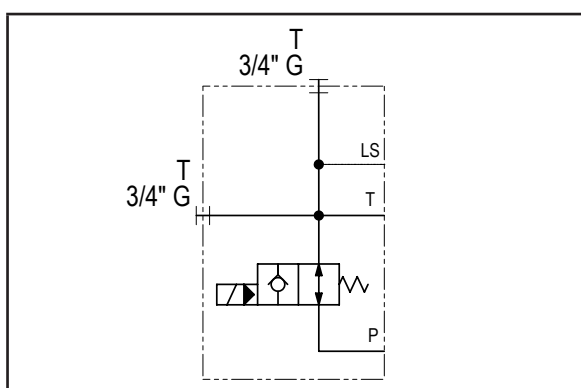
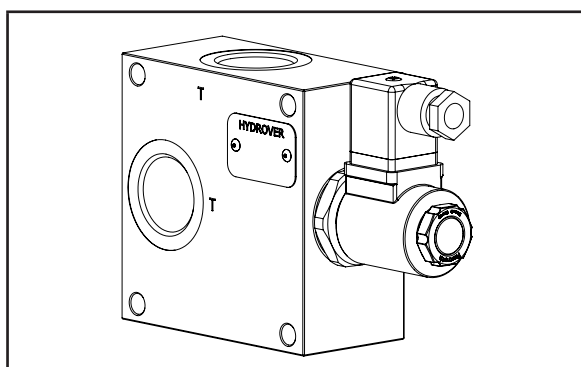
Hydrover product**Product series**

52 series - Load sensing modular Cetop 5 subplates for parallel circuits

Manifold material
Aluminium**Product ID**



Technical data	
Max. pressure	250 bar
Max. flow	120 lpm *
Weight	2 Kg
Manifold material	Aluminium
Ports T/T	3/4" G



Dimensions in mm

N°	Description	Q.ty
1	Ø 8,5 through hole for tie rod	4
2	Bosch Rexroth solenoid valve VEI-16-021-NA OD.15.06.21-Y-000000 depicted without manual override *	1
3	Bosch Rexroth coil D36 - CLASS H DIN 43650 ISO 4400 *	1
4	Connector DIN 43650 ISO 4400	1
5	OR 3068 i. Ø 17,12 cross section 2,62 (P-T)	2
6	OR 2043 i. Ø 10,82 cross section 1,78(LS-FS)	2
7	M8x15 thread for mounting	2

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue

Ordering code

H	5	2	0	8	A	-	-	-	-	-
---	---	---	---	---	---	---	---	---	---	---

Hydrover product

Product series

52 series - Load sensing modular
Cetop 5 subplates
for parallel circuits

Product ID

Manifold material

Aluminium

Bypass solenoid valve coil connection *

1 = DIN 43650 ISO 4400

Solenoid valve coil voltage *

OB = 12V DC
OC = 24V DC
OD = 48V DC
OU = 110V RAC
AH = 230V RAC

Bypass solenoid valve manual override *

E0 = Without
EP = Push
EG = Push and twist

Ordering code for assemblies with 1 intermediate subplate

H K V M 8 X 1 4 0 - 4

Hydrover product

Product type
Kit

Kit type
Screw kit

Thread
M8

Screw quantity
4

Screw length
140

Dimensions in mm

Ordering code for assemblies from 2 to 9 intermediate subplates

H K T M 8 X _ _ _ D S - 4

Hydrover product

Product type
Kit

Kit type
Tie rods

Thread
M8

Tie rods quantity
4

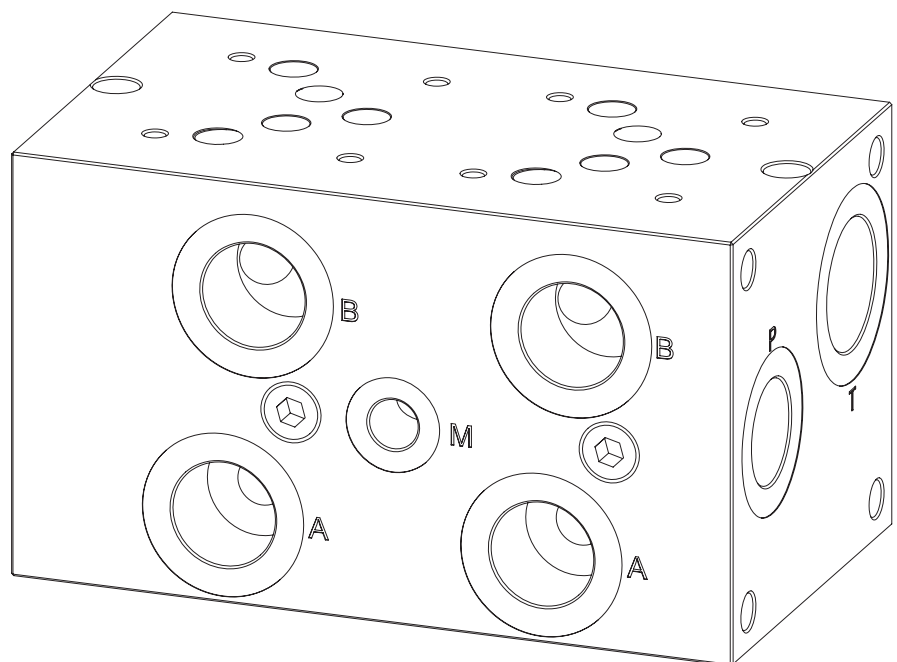
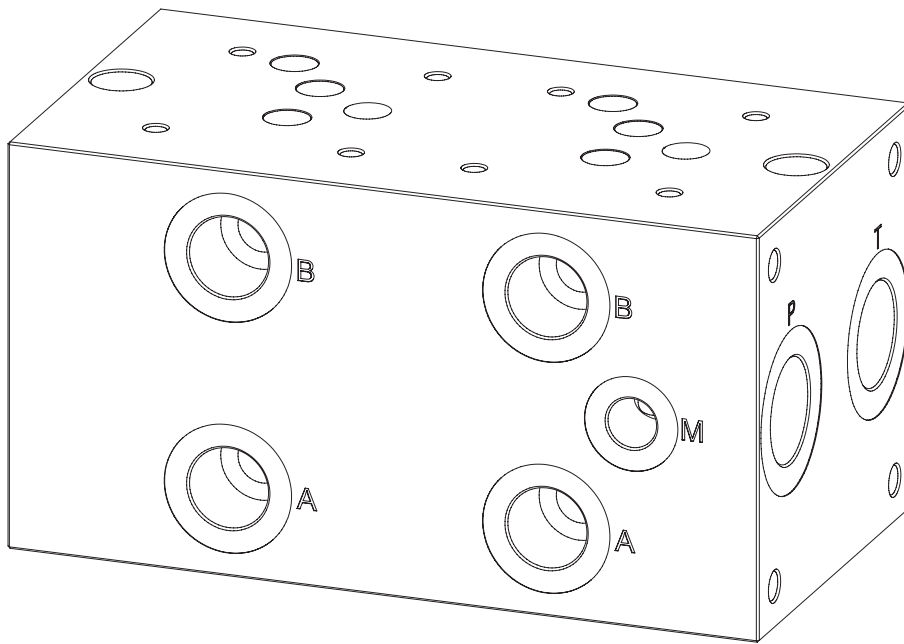
Nut type
Standard

Tie rod length for intermediate subplates quantity

238 =	2 subplates
318 =	3 subplates
395 =	4 subplates
475 =	5 subplates
555 =	6 subplates
635 =	7 subplates
715 =	8 subplates
795 =	9 subplates

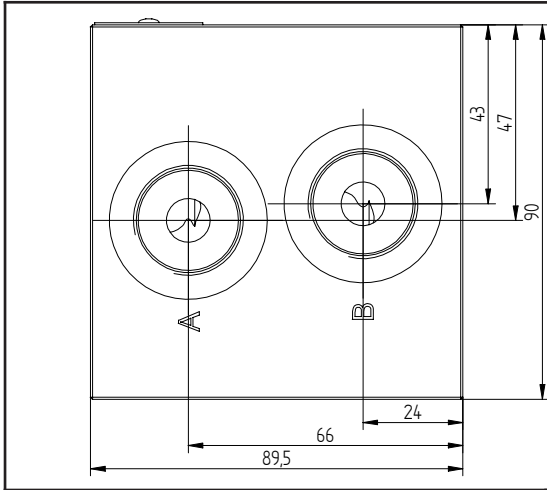
56 SERIES

Cetop 5 subplates

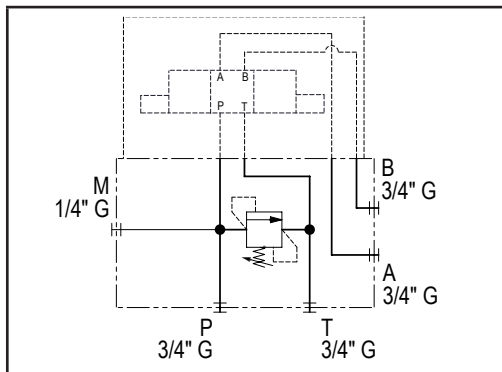
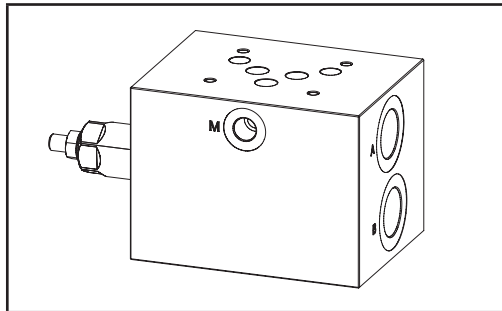


Cetop 5 single station subplate / relief valve / back P-T ports / side A-B ports **H5603**

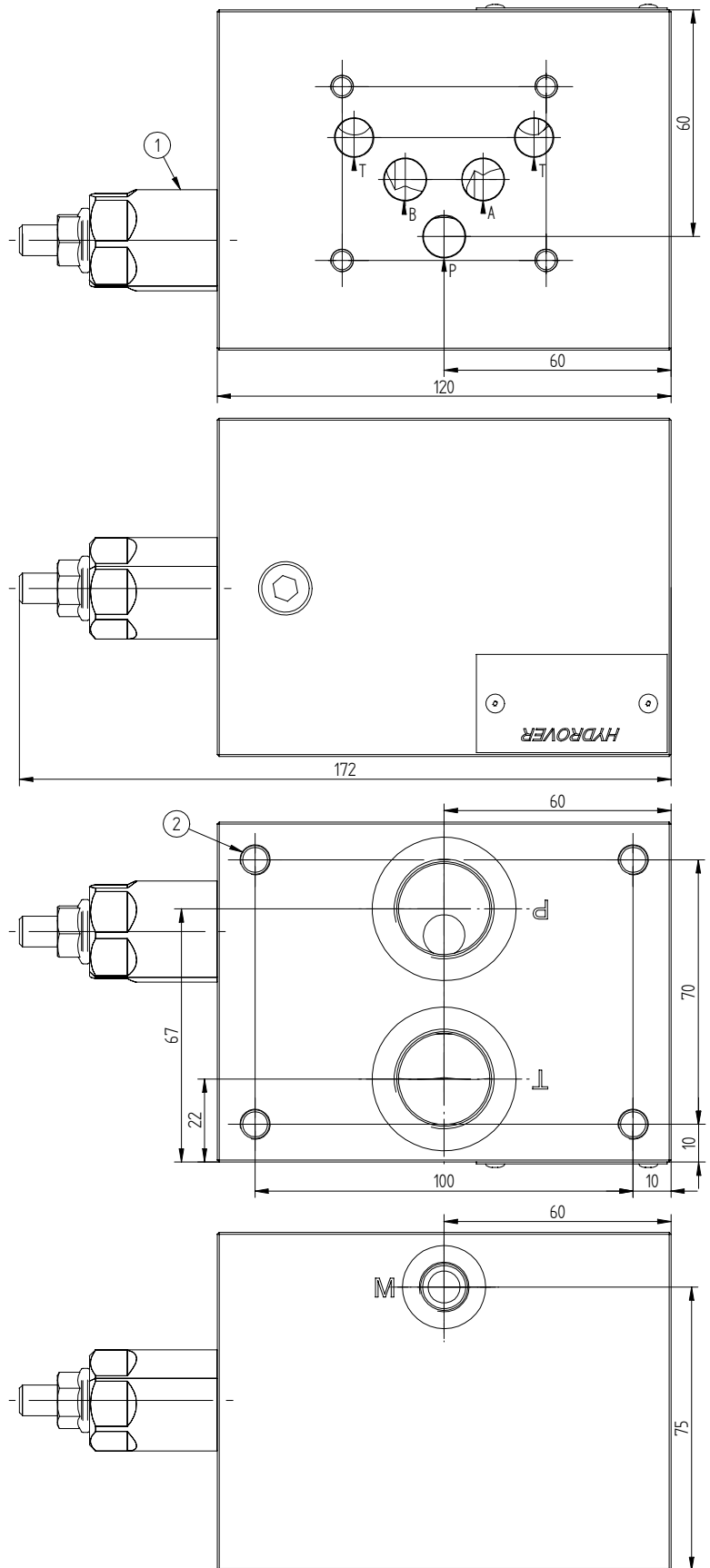
Dimensions in mm



Technical data	
Max. pressure	250 bar
Max. flow	120 lpm *
Weight	2,7 Kg
Manifold material	Aluminium
M port	1/4" G
P / T / A / B ports	3/4" G



N°	Description	Q.ty
1	Bosch Rexroth relief valve VSPN-10A depicted with screw adjustment	1
2	M8x15 thread for mounting	4



H5603

Ordering code

H	5	6	0	3	A	-	-	-
---	---	---	---	---	---	---	---	---

Hydrover product

Product series

56 series - Cetop 5 subplates

Product ID

Relief valve adjustment pressure range *

- 1 = 35-140 bar
- 2 = 70-280 bar
- 3 = 140-420 bar
- 3 = 35-350 bar (adj. knob)

Relief valve adjustment type *

- S = Screw
- K = Knob

Manifold material
Aluminium

* Omit if not required. To order the product without the relief cartridge valve, omit the pressure range and adjustment type options: H5603A.
The manifold will still be provided with the corresponding cavity.
To inhibit the relief valve, replace the related options with TL: H5203A-TL.
In the cavity it will be mounted a long plug.

Valve	Cavity	Long plug code
Pressure relief valve VSPN-10A	CA-10A-2N	0489A2008500000

Dimensions in mm

Caratteristiche tecniche	
Max. pressure	350 bar
Max. inlet flow	70 lpm *
Max. regenerated flow	140 lpm *
Weight	8,8 Kg
Manifold material	Steel
M port	1/4" G
P / T / A / B ports	3/4" G

N°	Description	Q.ty
1	M8x15 thread for mounting	4
2	Regenerative exclusion valve	1
3	Hydrover relief valve HCMM03-S3	1

* With cylinder ratio 2:1. With higher ratio, the pump flow rate should decrease proportionally.

Ordering code

H	5	6	0	9	S	-	S	3	-	-	-
---	---	---	---	---	---	---	---	---	---	---	---

Hydrover product

Product series

56 series - Cetop 5 subplates

Product ID

Manifold material

Steel

Relief valve adjustment type

Screw

= S

Regenerative exclusion valve adjustment pressure range

2 = 14-70 bar

4 = 70-210 bar

Regenerative exclusion valve adjustment type

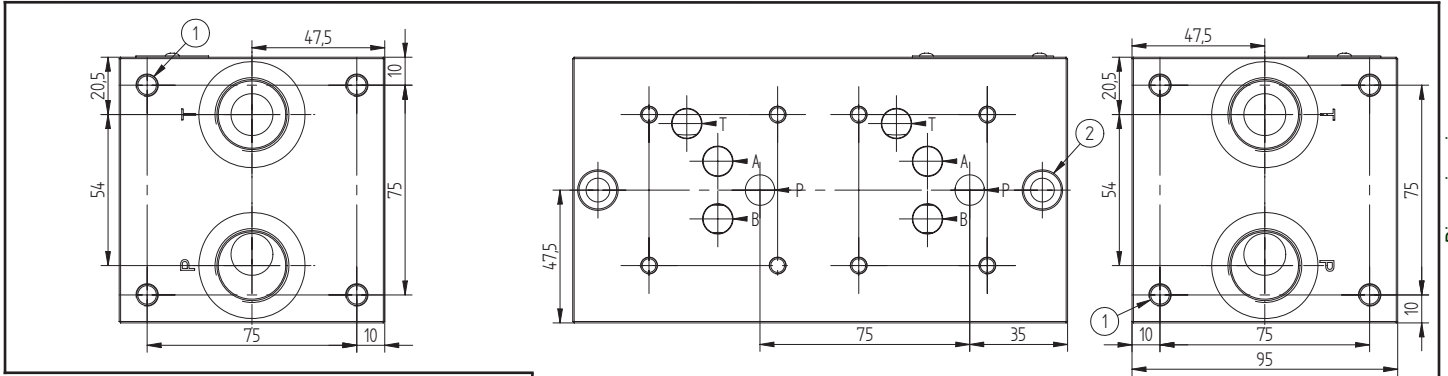
S = Screw

Relief valve adjustment pressure range

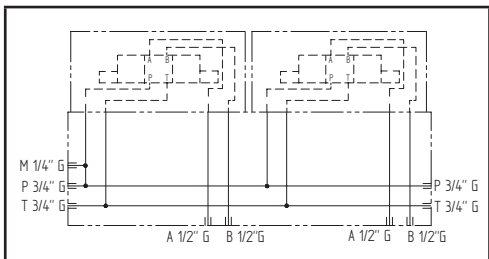
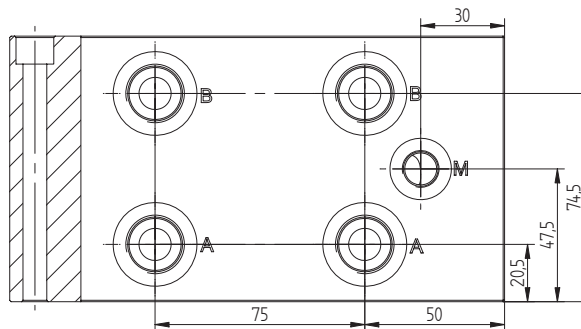
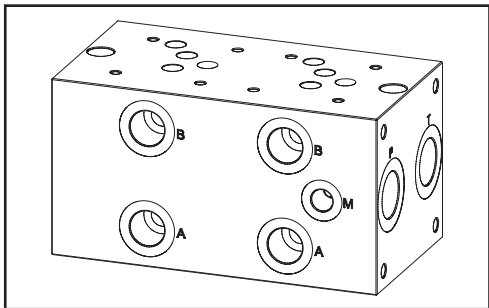
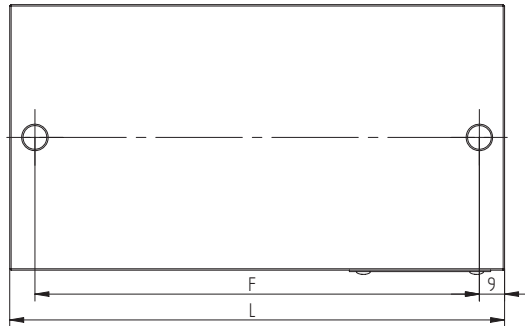
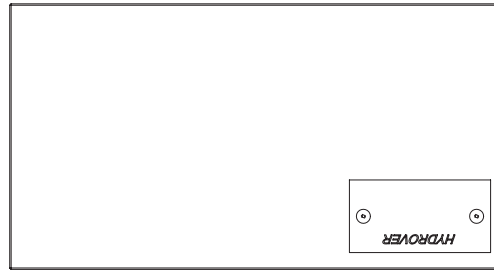
3 = 50-350 bar

Cetop 5 subplate from 1 to 6 stations
3/4" G crossing P-T ports / 1/2" G side A-B ports

H5601



Technical data	
Press. max.	350 bar
1 station weight	6,1 Kg
2 stations weight	10,9 Kg
3 stations weight	15,6 Kg
4 stations weight	20,4 Kg
5 stations weight	25,1 Kg
6 stations weight	29,9 Kg
Manifold material	Steel
M port	1/4" G
A / B ports	1/2" G
P / T ports	3/4" G



N°	Description	Q.ty
1	M8x15 thread for mounting	8
2	Ø 8,5 through hole for mounting	2

Stat.	1	2	3	4	5	6
L	102	177	252	327	402	477
F	84	159	234	309	384	459

H5601

Ordering code

H	5	6	0	1	S	_	P
---	---	---	---	---	---	---	---

Hydrover product

Product series

56 series - Cetop 5 subplates

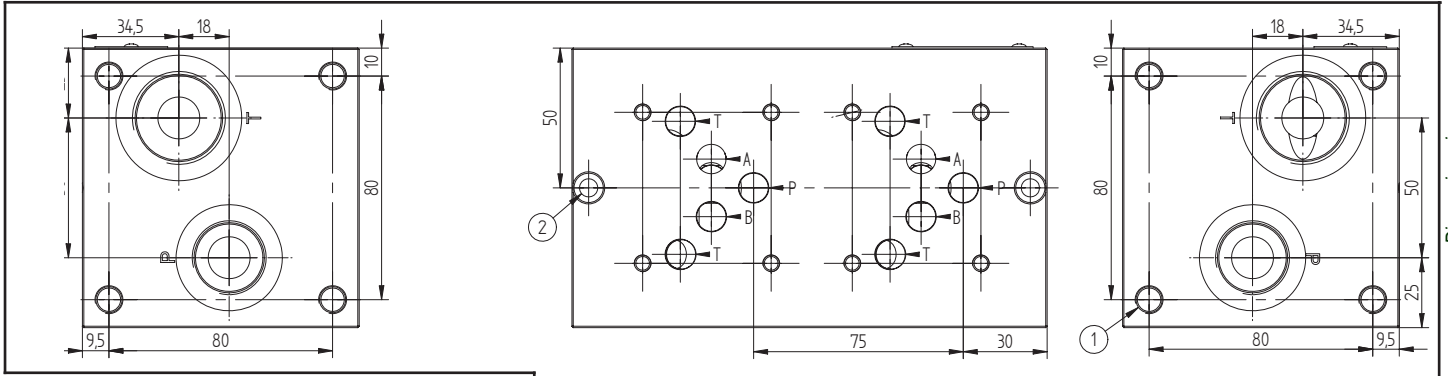
Product ID

Number of Cetop 5 stations

- 1P = 1 station
- 2P = 2 stations
- 3P = 3 stations
- 4P = 4 stations
- 5P = 5 stations
- 6P = 6 stations

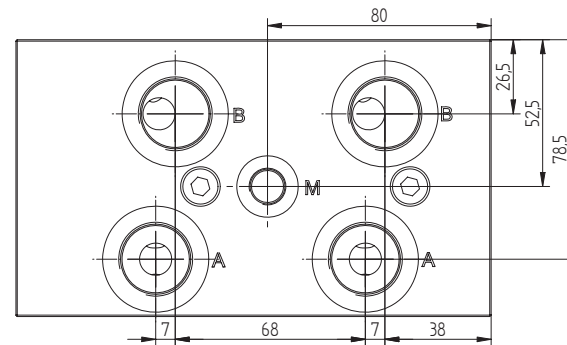
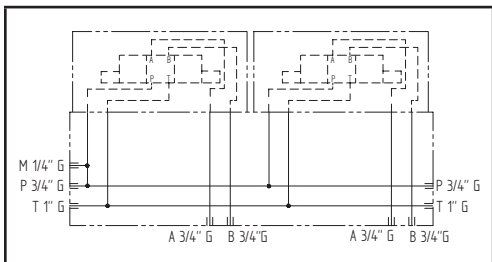
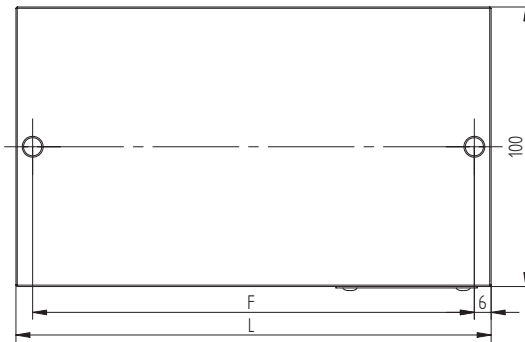
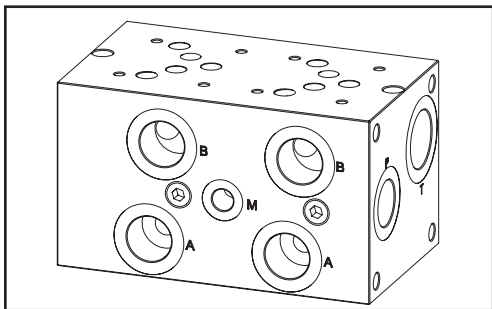
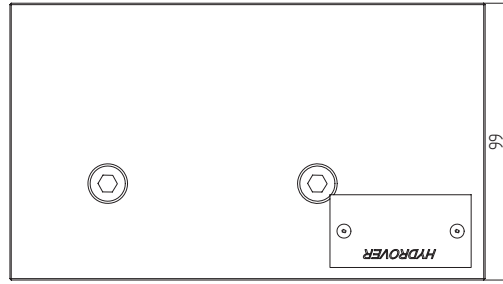
Manifold material

Steel



Dimensions in mm

Technical data	
Press. max.	350 bar
2 stations weight	11,4 Kg
3 stations weight	16,3 Kg
4 stations weight	21,2 Kg
5 stations weight	26,1 Kg
6 stations weight	31 Kg
Manifold material	Steel
M port	1/4" G
P / A / B ports	3/4" G
T port	1" G



N°	Description	Q.ty
1	M10x15 for mounting	8
2	Ø 6,5 through hole with counterbore for mounting	2

Stat.	2	3	4	5	6
L	170	245	320	395	470
F	158	233	308	383	458

Ordering code

H	5	6	0	2	S	_	P
---	---	---	---	---	---	---	---

Hydrover product

Product series

56 series - Cetop 5 subplates

Product ID

Number of Cetop 5 stations

2P =	2 stations
3P =	3 stations
4P =	4 stations
5P =	5 stations
6P =	6 stations

Manifold material

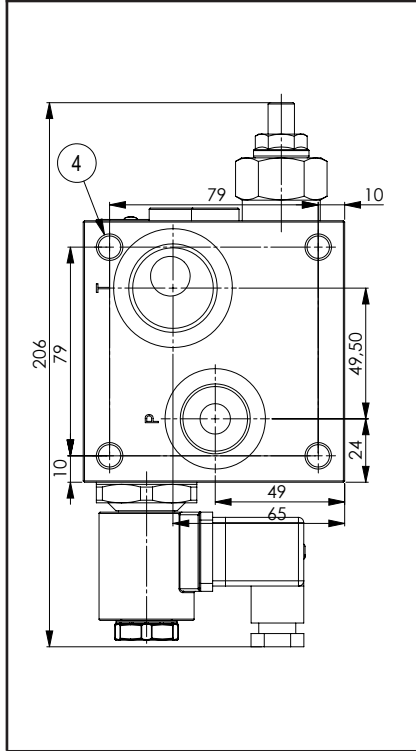
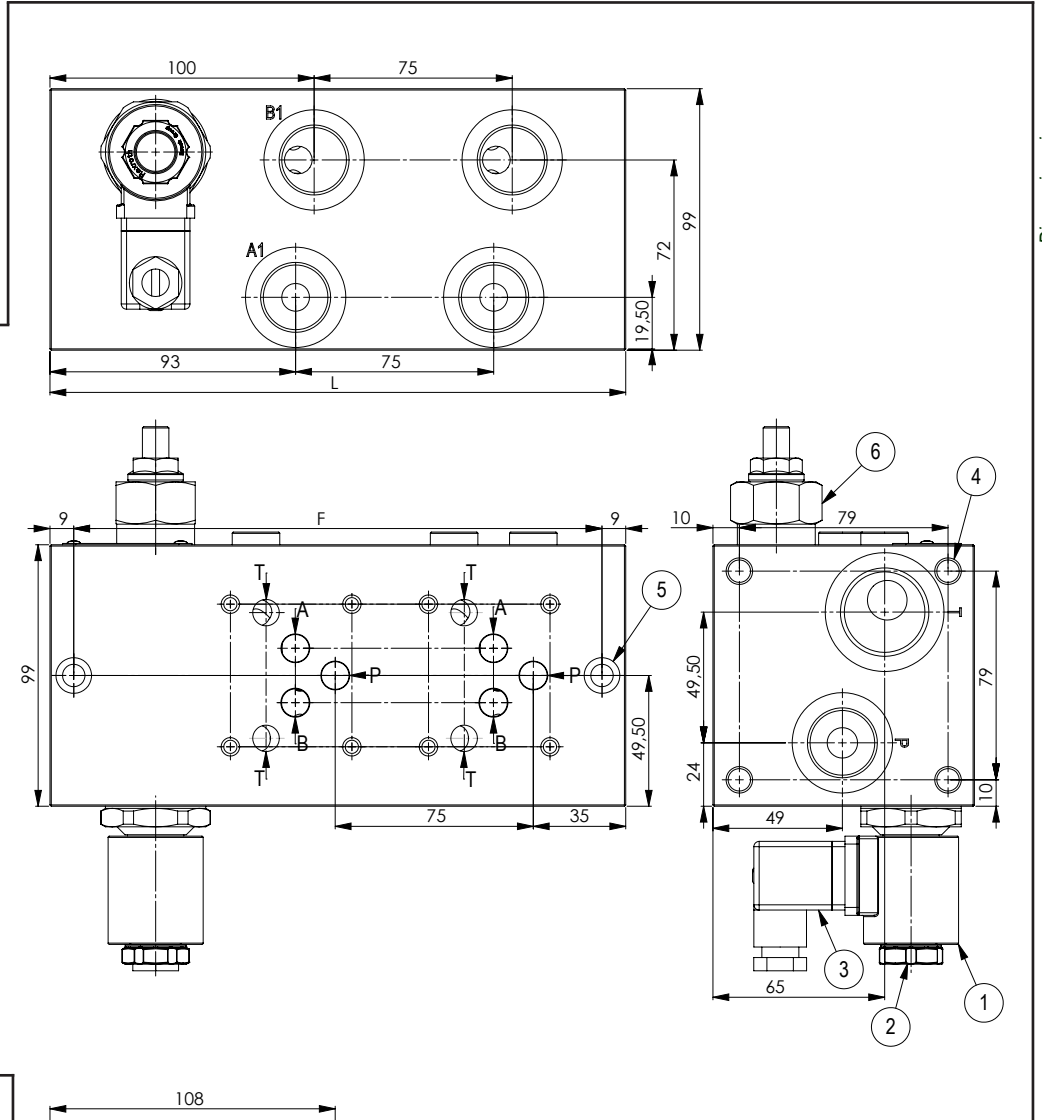
Steel

Cetop 5 subplate from 1 to 5 stations / bypass and relief valves
crossing P 3/4" G and T 1" G ports / side A-B ports

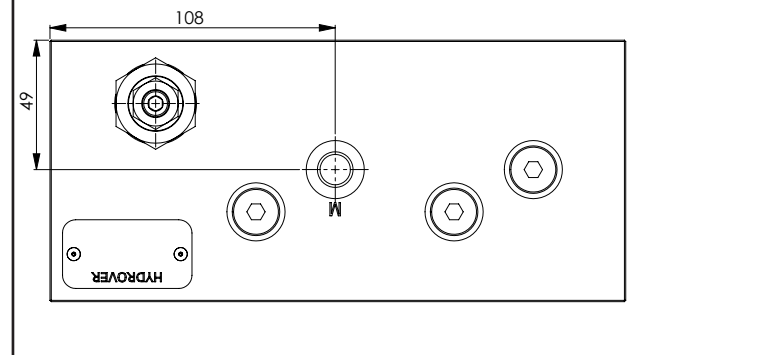
H5604

Dimensions in mm

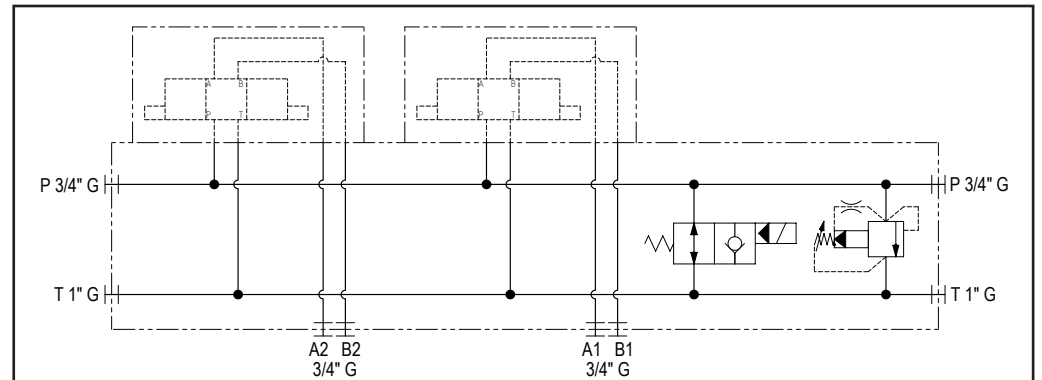
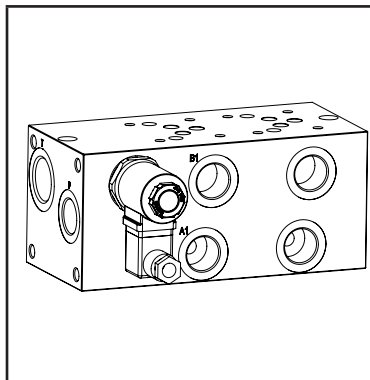
Technical data		
Max. pressure	Aluminium	Steel
	250 bar	350 bar
Max. flow	140 lpm *	
M port	1/4" G	
P / A / B ports	3/4" G	
T port	1" G	



Weight		
Stat.	Aluminium	Steel
1	3,8 Kg	9,7 Kg
2	5,1 Kg	14,9 Kg
3	7 Kg	20,1 Kg
4	8,9 Kg	25,3 Kg
5	10,8 Kg	30,5 Kg



Stat.	F	L
1	125	143
2	200	218
3	275	293
4	350	368
5	425	443



Ordering code

H	5	6	0	4	_	_	_	-	_	_	-	_	_	-	_	_
---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

Hydrover product

Product series

56 series - Cetop 5 subplates

Product ID

Manifold material

Aluminium = A
Steel = S

Number of Cetop 5 stations

1 station = 1P
2 stations = 2P
3 stations = 3P
4 stations = 4P
5 stations = 5P

Relief valve adjustment type

Screw = S
Knob = K

Solenoid valve coil connection *

1 = DIN 43650
ISO 4400

Solenoid valve coil voltage *

OB = 12V DC
OC = 24V DC
OD = 48V DC
OU = 110V RAC
AH = 230V RAC

Solenoid valve manual override *

E0 = Without
EP = Push
EG = Push and twist

Relief valve adjustment pressure range *

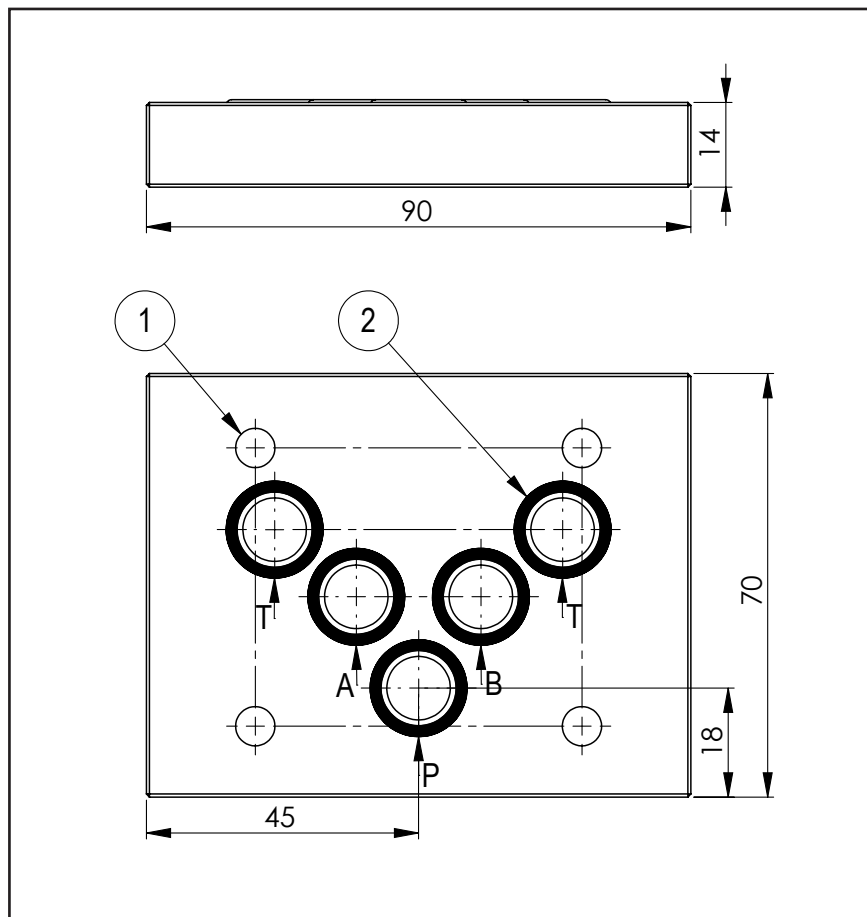
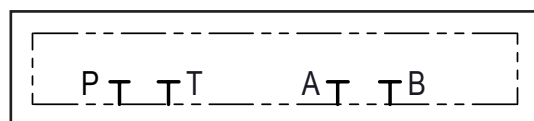
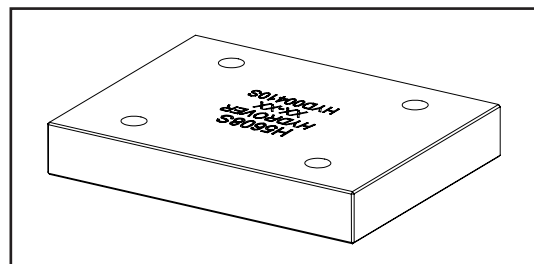
0 = 3-70 bar
1 = 7-105 bar
2 = 10-210 bar
3 = 35-420 bar

* Omit if not required. For example, to order the product without the relief cartridge valve, omit the pressure range and adjustment type options: H5604S3P-E0-OC1. The manifold will still be provided with the corresponding cavity. To inhibit the solenoid valve, replace the related options with TL: eg. H5604S3P-S2-TL. In the cavity it will be mounted a long plug.

Valve	Cavity	Long plug code
Bosch Rexroth solenoid valve VEI-16-021-NA OD.15.06.21-Y-000000	021-E	R-800-015
Pressure relief valve VSP-150	065	Contact Hydrover

N°	Description	Q.ty
1	Bosch Rexroth coil S8-356 - CLASS H DIN 43650 ISO 4400 *	1
2	Bosch Rexroth solenoid valve VEI-16-021-NA OD.15.06.21-Y-000000 depicted without manual override *	1
3	Connector DIN 43650 ISO 4400	1
4	M10x15 for mounting	8
5	Ø 8,5 through hole for mounting with counterbore	2
6	Bosch Rexroth relief valve VSP-150* depicted with screw adjustment	1

Technical data	
Manifold material	Steel
Max. pressure	350 bar
Weight	0,9 Kg



N°	Description	Q.ty
1	Ø 6,5 through hole for mounting	4
2	OR 2050 i. Ø 12,42 cross section 1,78	5

H5608

Ordering code

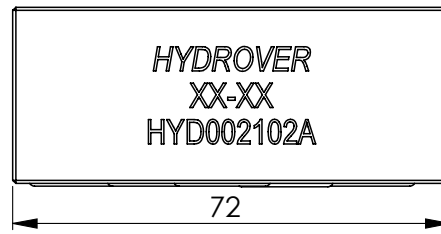
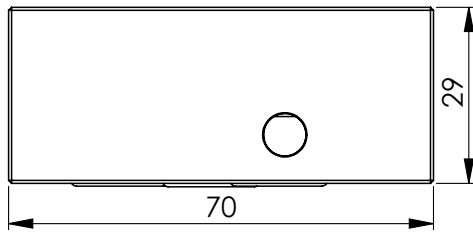
H	5	6	0	8	S
---	---	---	---	---	---

Hydrover product

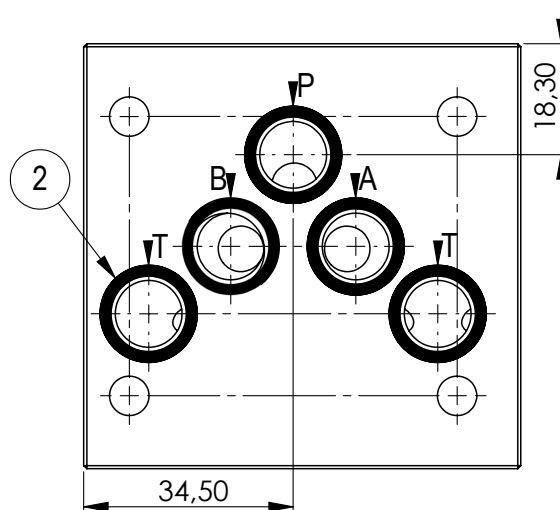
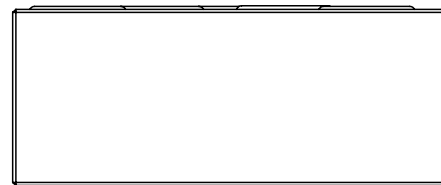
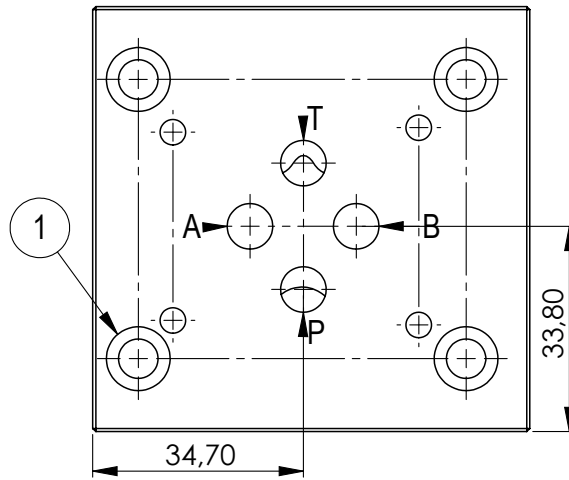
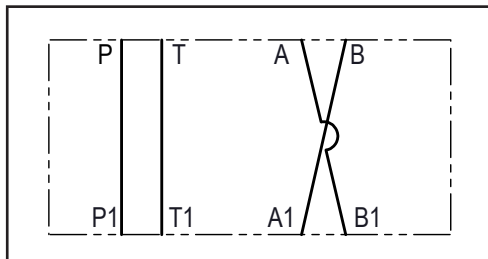
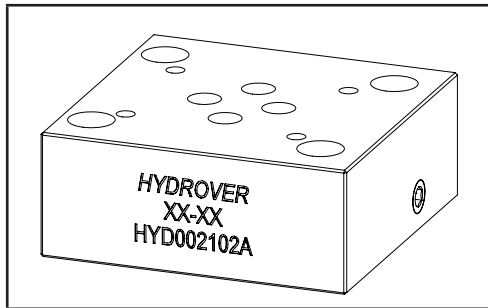
Manifold material
Steel

Product series
56 series - Cetop 5 subplates

Product ID



Technical data		
Manifold material	Aluminium	Steel
Max. pressure	250 bar	350 bar
Weight	0,3 Kg	0,9 Kg



N°	Description	Q.ty
1	Ø 6,5 through hole for mounting with counterbore	4
2	OR 2050 i. Ø 12,42 cross section 1,78	5

H5606

Ordering code

H	5	6	0	6	_
---	---	---	---	---	---

Hydrover product

Product series

56 series - Cetop 5 subplates

Manifold material

Aluminium

Steel

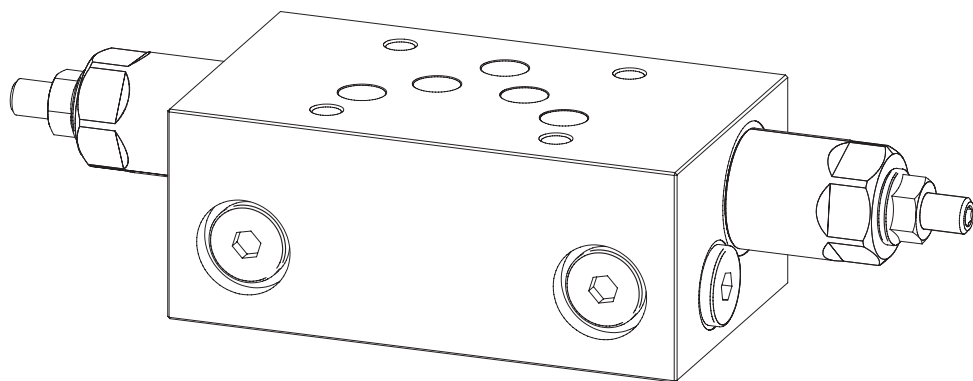
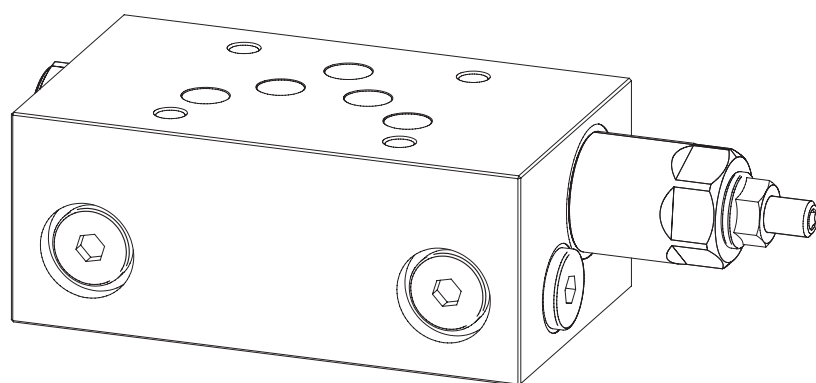
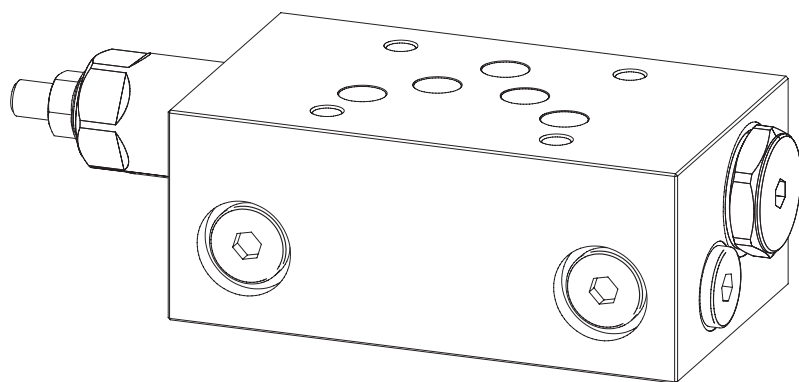
A=

S=

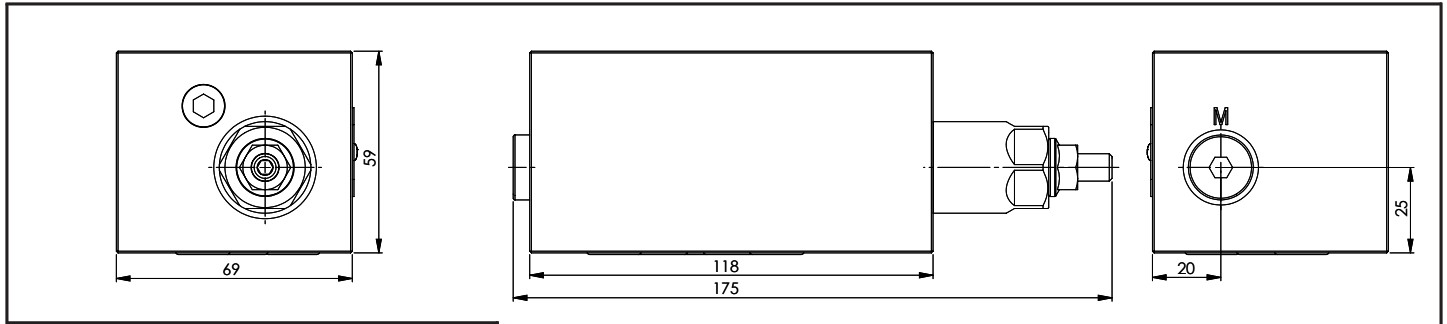
Product ID

59 SERIES

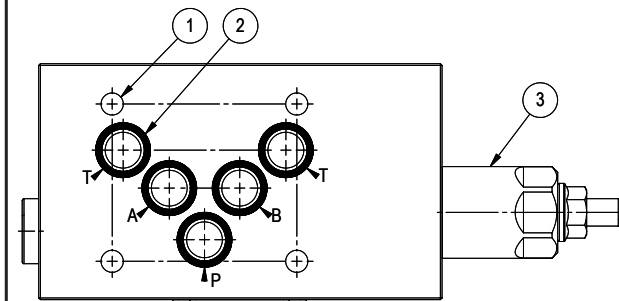
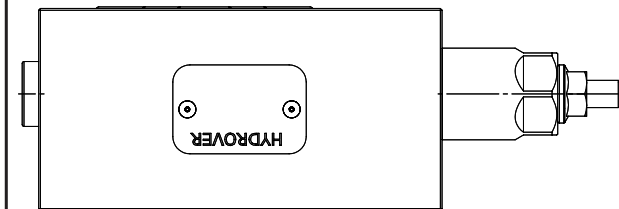
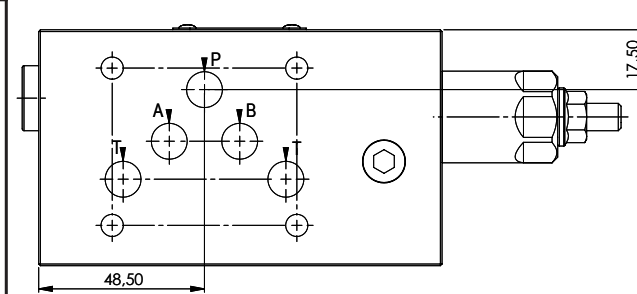
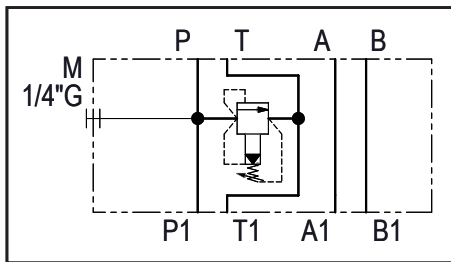
Cetop 5 modular valves



Dimensions in mm

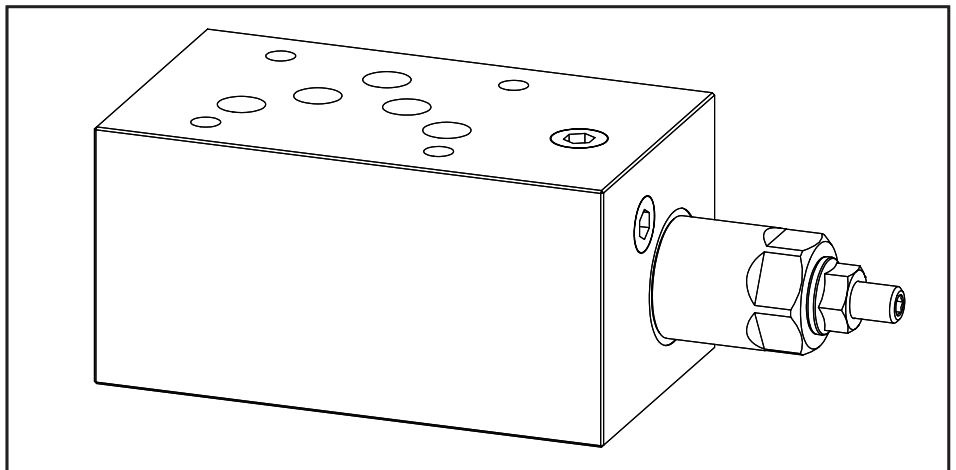


Technical data	
Max. pressure	250 bar
Max. flow	120 lpm *
Weight	1,45 Kg
Manifold material	Aluminium
M port	1/4" G



N°	Description	Q.ty
1	Ø 6,5 through hole for mounting	4
2	OR 2050 i. Ø 12,42 cross section 1,78	5
3	Bosch Rexroth relief valve VSPN-10A* depicted with screw adjustment	1

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue



Ordering code

H	5	9	1	3	A	-	-	-
---	---	---	---	---	---	---	---	---

Hydrover product

Product series

59 series - Cetop 5 modular valves

Product ID

Manifold material

Aluminium

Relief valve adjustment pressure range *

- 1 = 35-140 bar
- 2 = 70-280 bar
- 3 = 140-420 bar
- 3 = 35-350 bar (adj. knob)

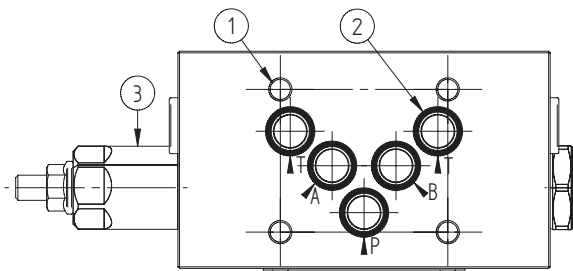
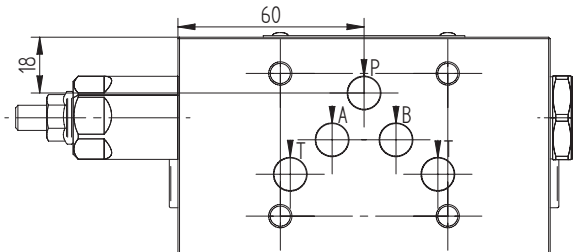
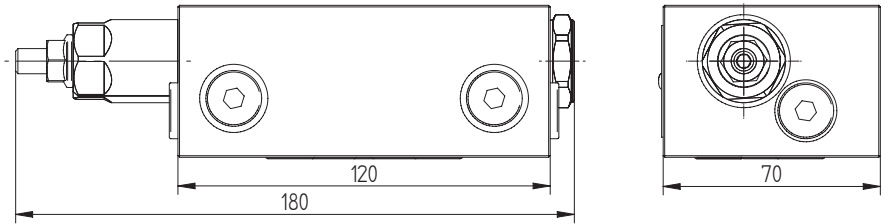
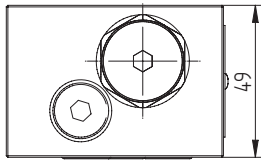
Relief valve adjustment type *

- S = Screw
- K = Knob

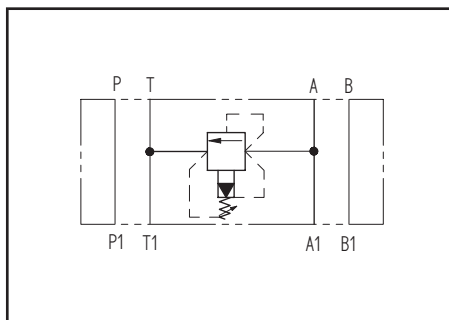
* Omit if not required. To order the product without the pressure relief cartridge valve, omit the pressure range and the adjustment type options: H5913A.
The manifold will still be provided with the corresponding cavity.

Cetop 5 modular relief valve on A **H5902**

Dimensions in mm

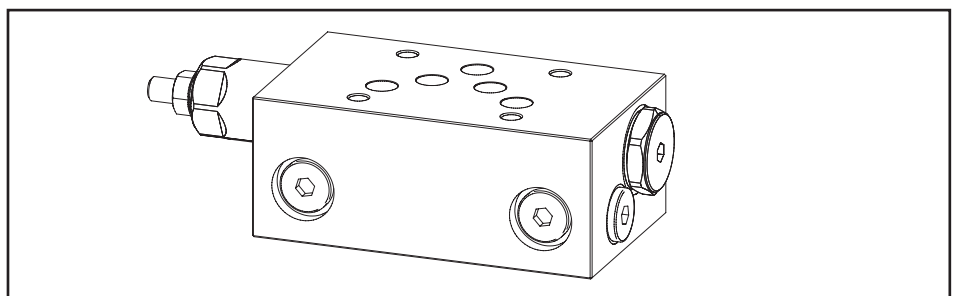


Technical data	
Max. pressure	350 bar
Max. flow	120 lpm *
Weight	3 Kg
Manifold material	Steel



N°	Description	Q.ty
1	Ø 6,5 through hole for mounting	4
2	OR 2050 i. Ø 12,42 cross section 1,78	5
3	Bosch Rexroth relief valve VSPN-10A* depicted with screw adjustment	1

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue



Ordering code

H	5	9	0	2	S	-	-	-
---	---	---	---	---	---	---	---	---

Hydrover product

Product series

59 series - Cetop 5 modular valves

Product ID

Manifold material

Steel

Relief valve adjustment pressure range *

- 1 = 35-140 bar
- 2 = 70-280 bar
- 3 = 140-420 bar
- 3 = 35-350 bar (adj. knob)

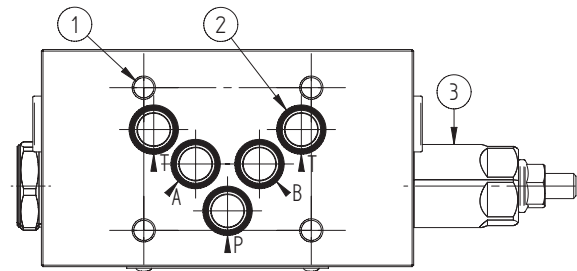
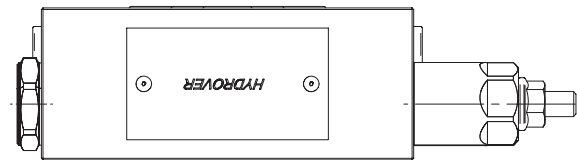
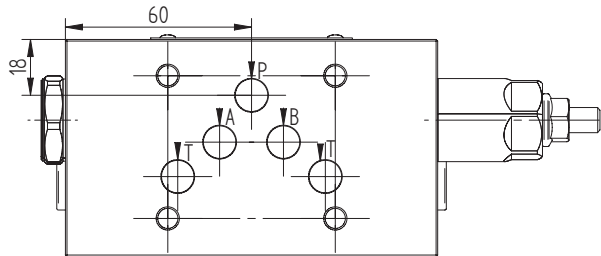
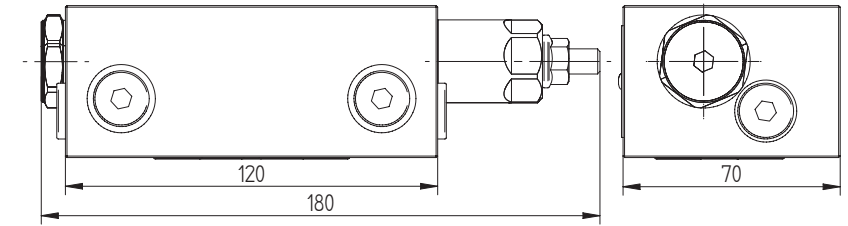
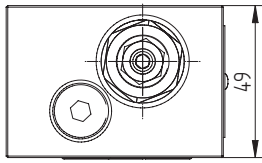
Relief valve adjustment type *

- S = Screw
- K = Knob

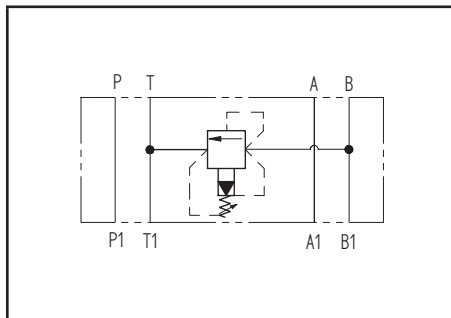
* Omit if not required. To order the product without the pressure relief cartridge valve, omit the pressure range and the adjustment type options: H5902S.
The manifold will still be provided with the corresponding cavity.

Cetop 5 modular relief valve on B **H5903**

Dimensions in mm

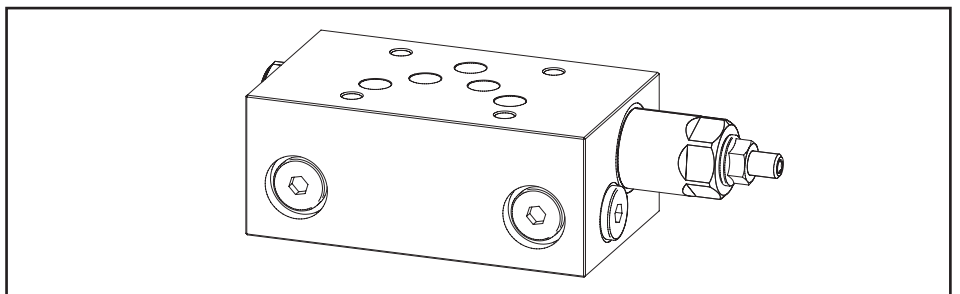


Technical data	
Max. pressure	350 bar
Max. flow	120 lpm *
Weight	3 Kg
Manifold material	Steel



N°	Description	Q.ty
1	Ø 6,5 through hole for mounting	4
2	OR 2050 i. Ø 12,42 cross section 1,78	5
3	Bosch Rexroth relief valve VSPN-10A* depicted with screw adjustment	1

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue



Ordering code

H	5	9	0	3	S	-	-
---	---	---	---	---	---	---	---

Hydrover product

Product series

59 series - Cetop 5 modular valves

Product ID

Manifold material

Steel

Relief valve adjustment pressure range *

- 1 = 35-140 bar
- 2 = 70-280 bar
- 3 = 140-420 bar
- 3 = 35-350 bar (adj. knob)

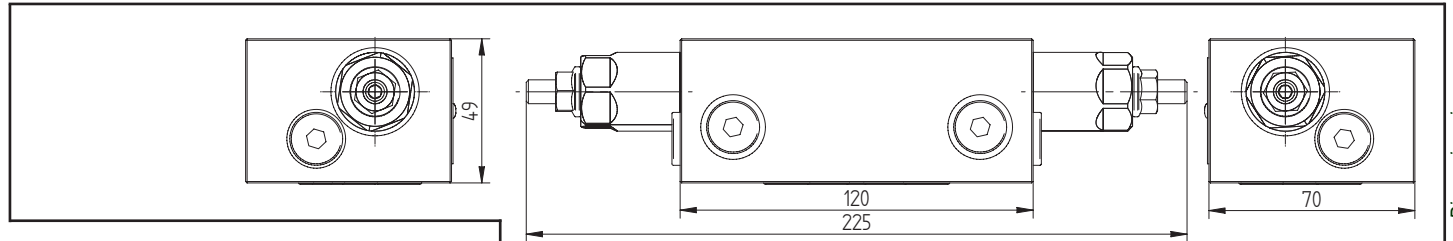
Relief valve adjustment type *

- S = Screw
- K = Knob

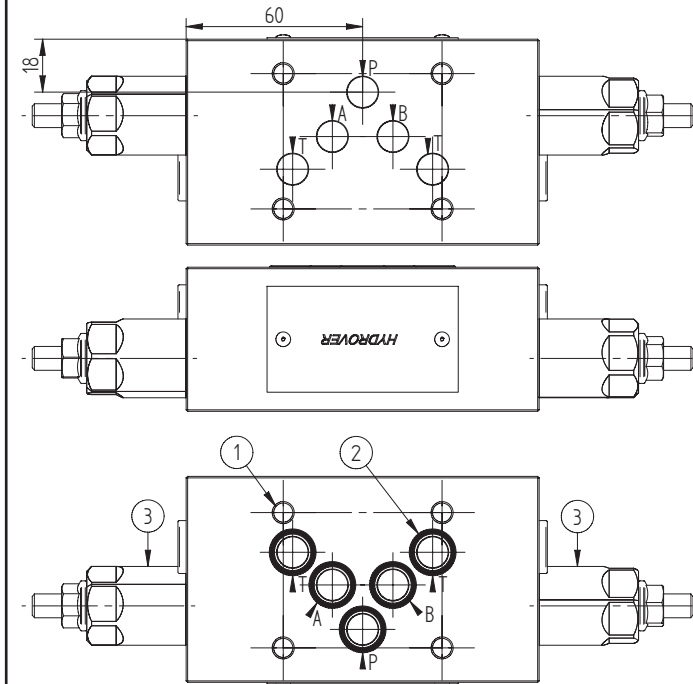
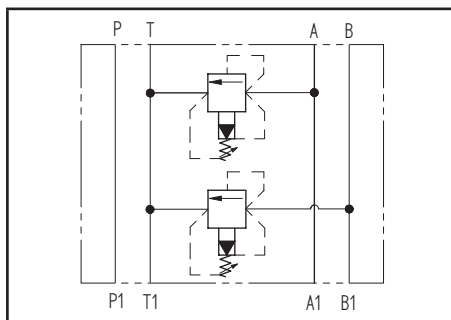
* Omit if not required. To order the product without the pressure relief cartridge valve, omit the pressure range and the adjustment type options: H5903S.
The manifold will still be provided with the corresponding cavity.

Cetop 5 modular relief valve on A and B **H5901**

Dimensions in mm

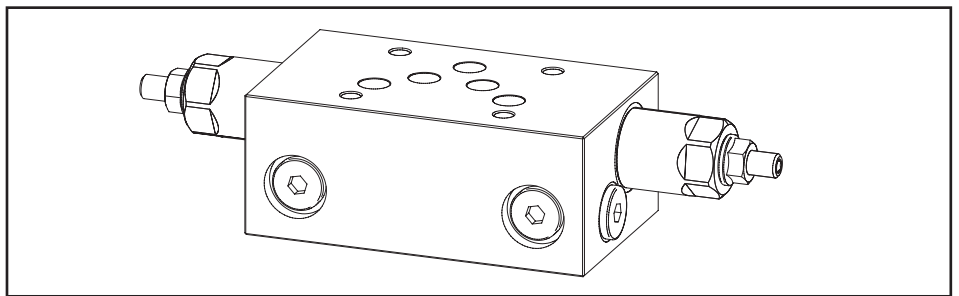


Technical data	
Max. pressure	350 bar
Max. flow	120 lpm *
Weight	3 Kg
Manifold material	Steel



N°	Description	Q.ty
1	Ø 6,5 through hole for mounting	4
2	OR 2050 i. Ø 12,42 cross section 1,78	5
3	Bosch Rexroth relief valve VSPN-10A* depicted with screw adjustment	2

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue



Ordering code

H	5	9	0	1	S	-	-	-	-	-
---	---	---	---	---	---	---	---	---	---	---

Hydrover product

Product series

59 series - Cetop 5 modular valves

Product ID

Manifold material

Steel

Relief valve adjustment pressure range on B *

- 1 = 35-140 bar
- 2 = 70-280 bar
- 3 = 140-420 bar (reg. vite)
- 3 = 35-350 bar (adj. knob)

Relief valve adjustment type on B *

- S = Screw
- K = Knob (solo 35-350 bar)

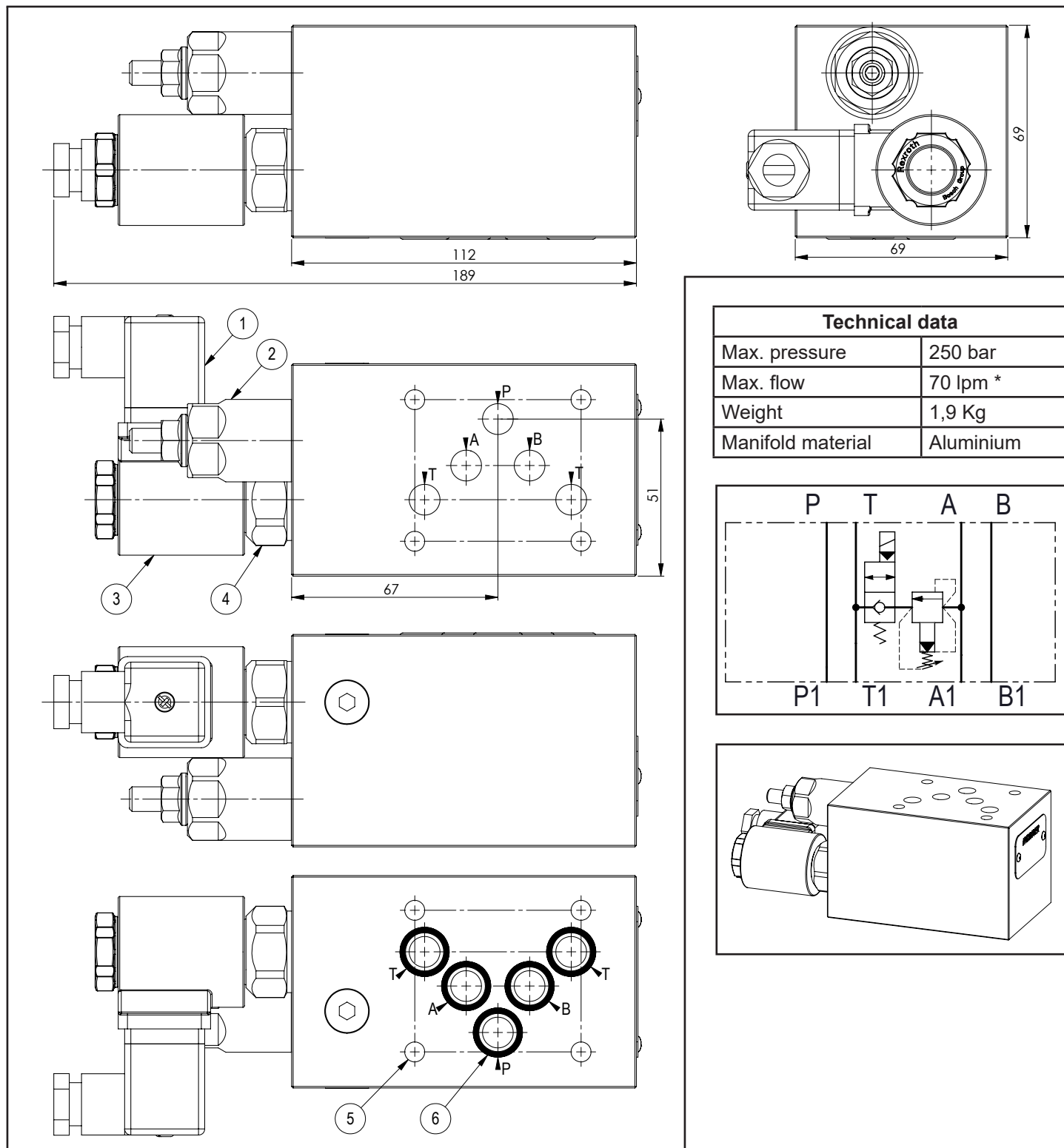
Relief valve adjustment pressure range on A *

- 1 = 35-140 bar
- 2 = 70-280 bar
- 3 = 140-420 bar
- 3 = 35-350 bar (adj. knob)

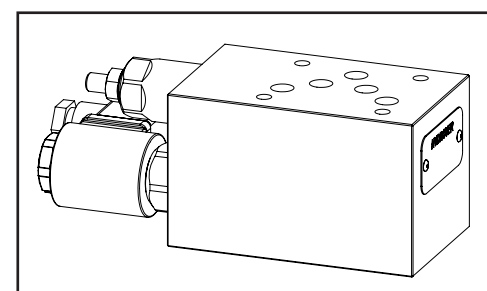
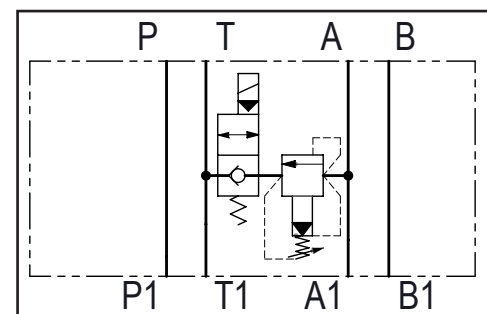
Relief valve adjustment type on A *

- S = Screw
- K = Knob

* Omit if not required. To order the product without the pressure relief cartridge valves, omit the pressure range and the adjustment type options: H5901S.
The manifold will still be provided with the corresponding cavities.



Technical data	
Max. pressure	250 bar
Max. flow	70 lpm *
Weight	1,9 Kg
Manifold material	Aluminium



N°	Description	Q.ty
1	Connector DIN 43650 ISO 4400	1
2	Bosch Rexroth relief valve VSPN-10A* depicted with screw adjustment	1
3	Bosch Rexroth coil D36 - CLASS H DIN 43650 ISO 4400 *	1
4	Bosch Rexroth solenoid valve VEI-16-10A-NC OD.15.05.36-Y-000000 or VEI-16-10A-NA OD.15.06.36-Y-000000 depicted without manual override *	1
5	Ø 6,5 through hole for mounting	4
6	OR 2050 i. Ø 12,42 cross section 1,78	5

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue

Ordering code

H 5 9 2 1 A - - - - -

Hydrover product

Product series
59 series - Cetop 5 modular valves

Product ID

Manifold material
Aluminium

Relief valve adjustment type *
Screw = S
Knob = K

Relief valve adjustment pressure range *
35-140 bar = 1
70-280 bar = 2
140-420 bar = 3
35-350 bar (adj. knob) = 3

Solenoid valve coil connection *
1 = DIN 43650
ISO 4400

Solenoid valve coil voltage *
OB = 12V DC
OC = 24V DC
OD = 48V DC
OV = 24V RAC
OU = 110V RAC
AH = 230V RAC

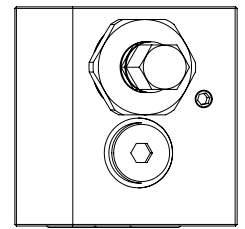
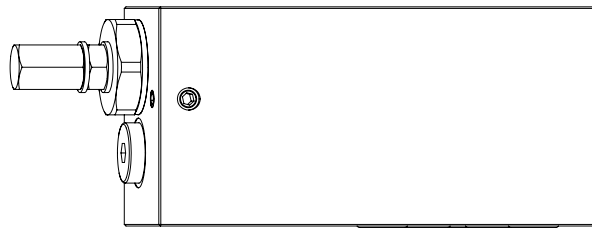
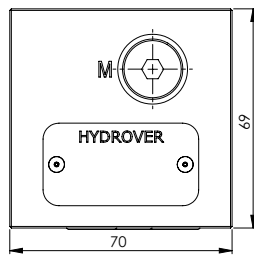
Solenoid valve manual override *
E0 = Without
EP = Push (NA, 2A)
EV = Screw (NC, 2C)
EG = Push and twist (NA, 2A)

Solenoid valve spool type *
NA = Normally open
NC = Normally closed

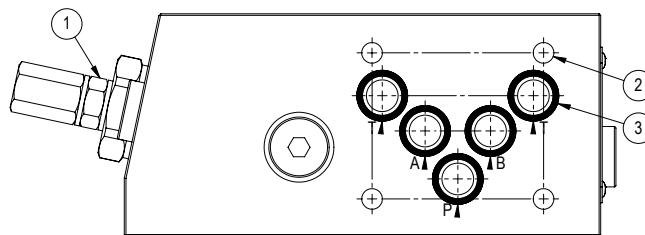
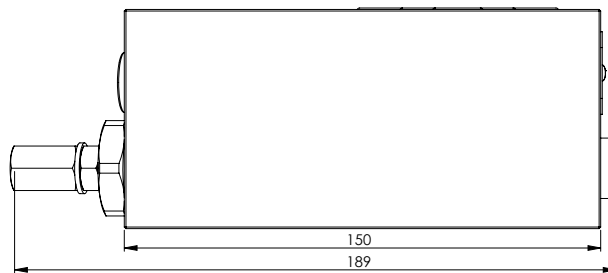
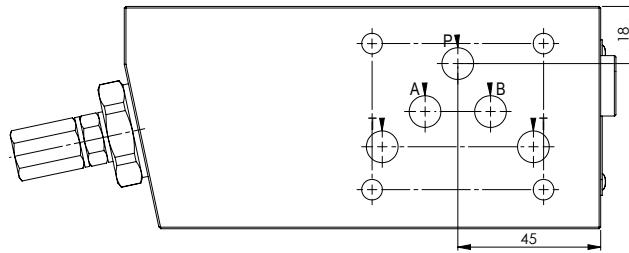
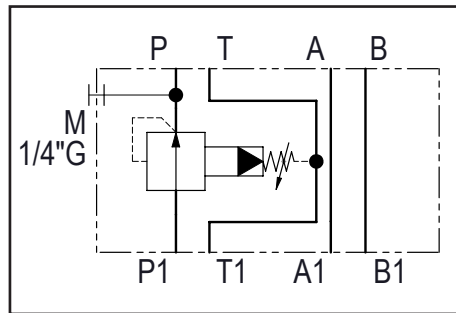
* Omit if not required. For example to order the product without the relief cartridge valve, omit the pressure range and adjustment type options: eg. H5921A-NC-E0-OC1.
The manifold will still be provided with the corresponding cavity.

Cetop 5 modular pressure reducing valve on P **H5915**

Dimensions in mm

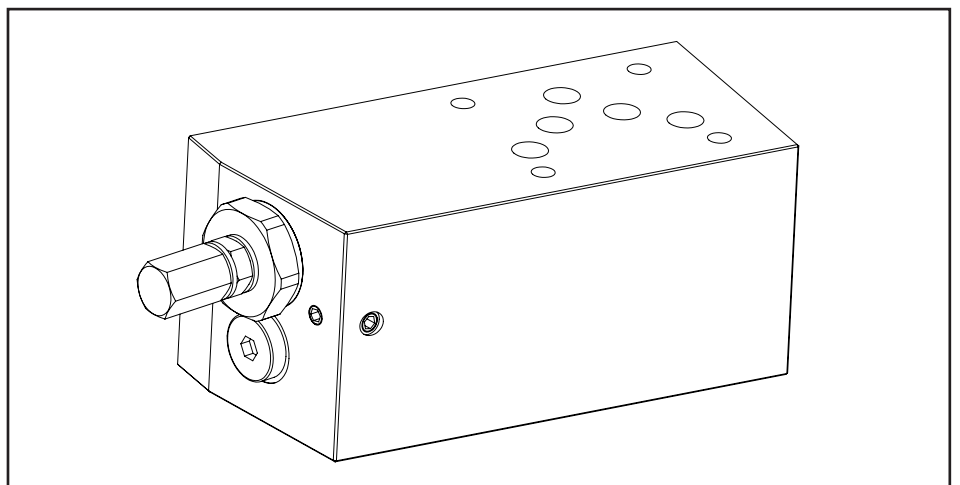


Technical data	
Max. pressure	250 bar
Max. flow	120 lpm *
Weight	2 Kg
Manifold material	Aluminium
M port	1/4" G



N°	Description	Q.ty
1	Bosch Rexroth pressure reducing valve VRP-150* depicted with screw adjustment	1
2	Ø 6,5 through hole for mounting	4
3	OR 2050 i. Ø 12,42 cross section 1,78	5

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue



Ordering code

H	5	9	1	5	A	-	-	-
---	---	---	---	---	---	---	---	---

Hydrover product

Product series

59 series - Cetop 5 modular valves

Product ID

Manifold material

Aluminium

**Reducing valve
adjustment pressure range ***

20-210 bar

2 =

**Reducing valve
adjustment type ***

Screw

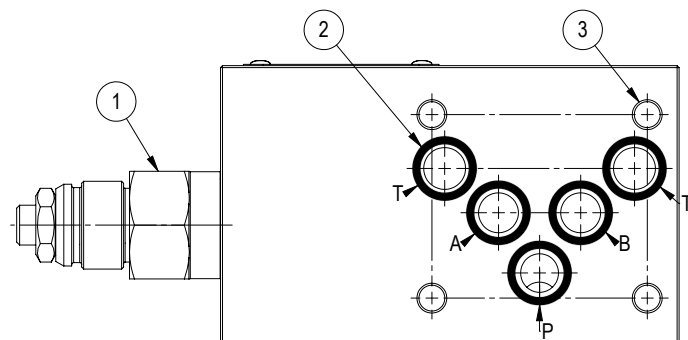
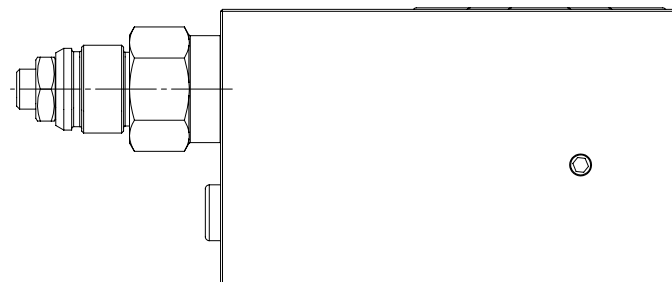
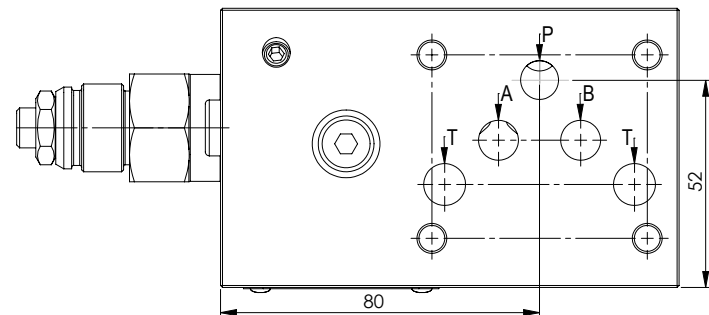
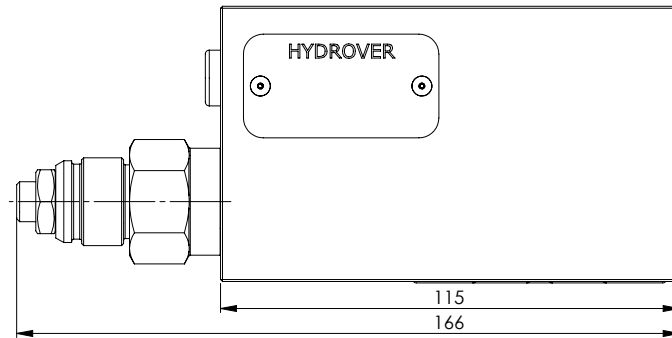
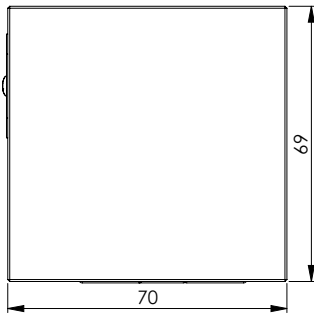
Knob

S =

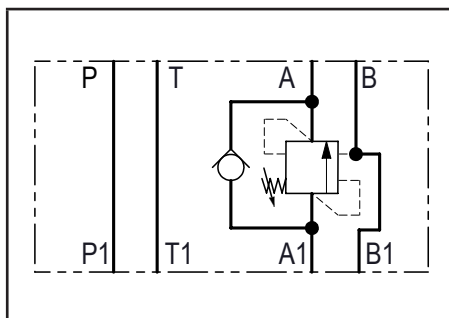
K =

* Omit if not required. To order the product without the pressure relief cartridge valve, omit the pressure range and the adjustment type options: H5915A.

The manifold will still be provided with the corresponding cavity.

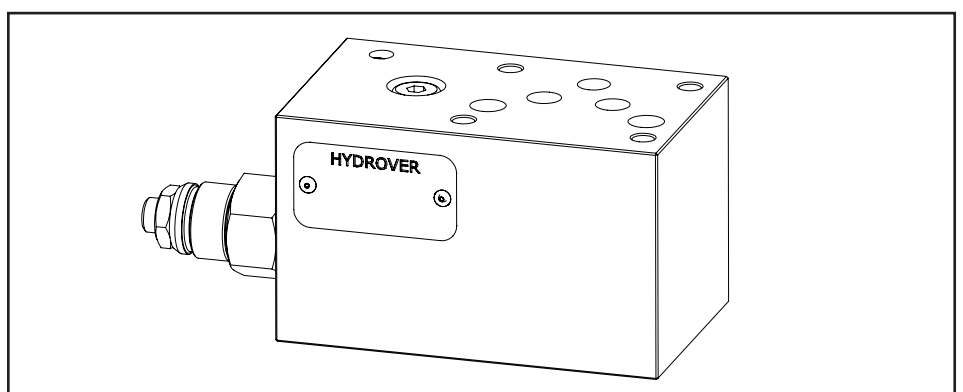


Technical data	
Max. pressure	250 bar
Max. flow	50 lpm *
Weight	1,6 Kg
Manifold material	Aluminium



N°	Description	Q.ty
1	Bosch Rexroth counterbalance valve VBSN-10A *	1
2	OR 2050 i. Ø 12,42 cross section 1,78	5
3	Ø 6,5 through hole for mounting	4

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue



Ordering code

H	5	9	1	6	A	-	-	-
---	---	---	---	---	---	---	---	---

Hydrover product

Product series

59 series - Cetop 5 modular valves

Product ID

Manifold material

Aluminium

Counterbalance valve pilot ratio

3 =	3:1
8 =	8:1

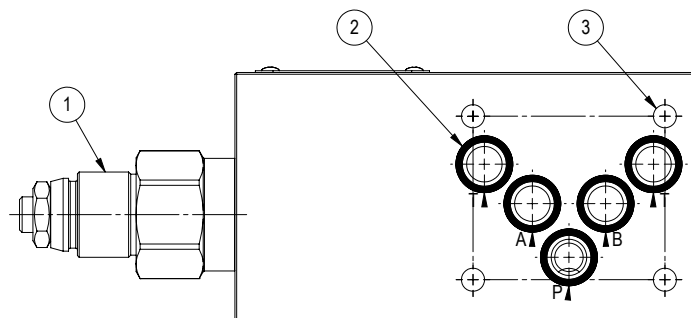
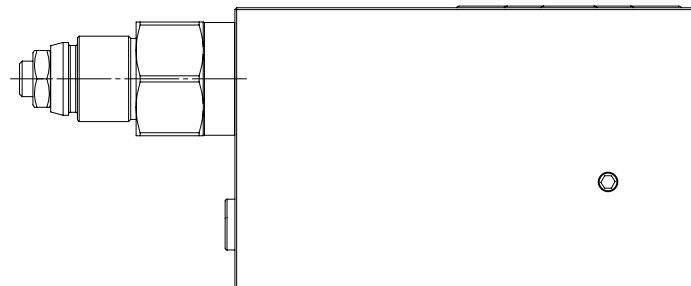
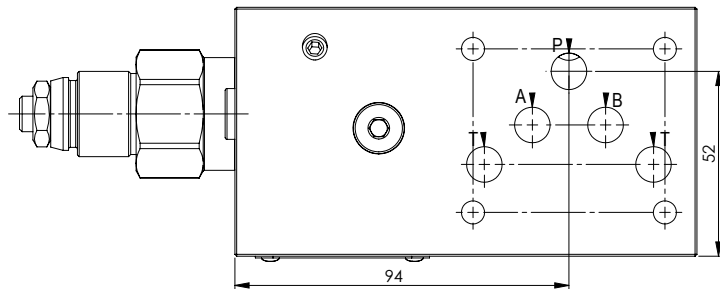
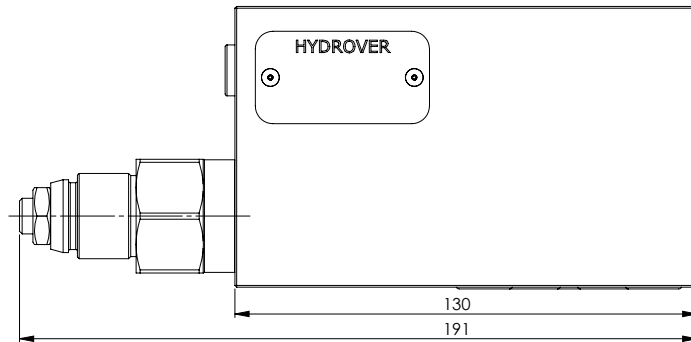
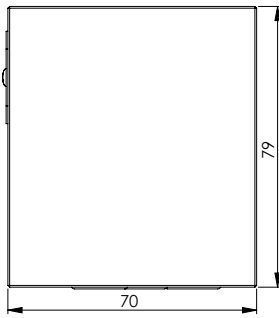
Counterbalance valve adjustment pressure range

2 =	70-210 bar
3 =	140-350 bar

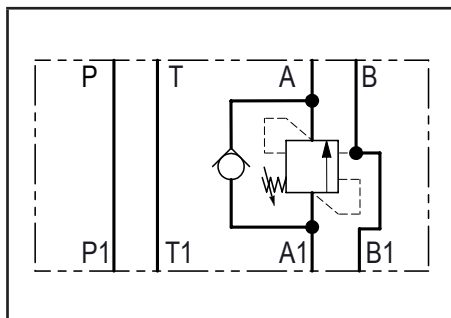
Counterbalance valve adjustment type *

S = Screw

* Omit if not required. To order the product without the counterbalance cartridge valve, omit the adjustment type, pressure range and pilot ratio options: H5916A.
The manifold will still be provided with the corresponding cavity.

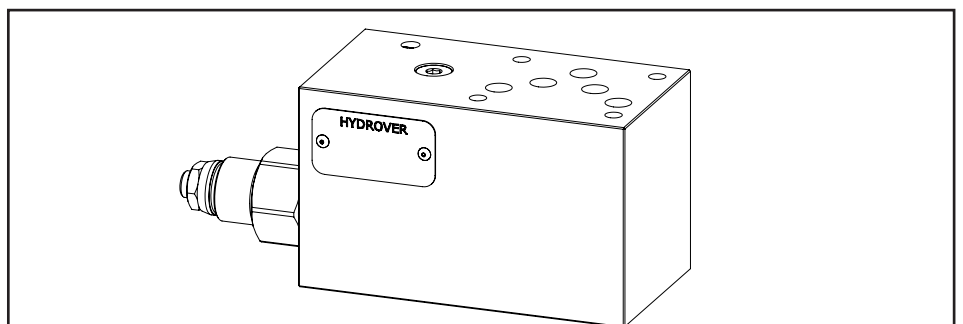


Technical data	
Max. pressure	250 bar
Max. flow	100 lpm *
Weight	2,3 Kg
Manifold material	Aluminium



N°	Description	Q.ty
1	Bosch Rexroth counterbalance valve VBSN-12A *	1
2	OR 2050 i. Ø 12,42 cross section 1,78	5
3	Ø 6,5 through hole for mounting	4

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue



Ordering code

H	5	9	1	7	A	-	-	-
---	---	---	---	---	---	---	---	---

Hydrover product

Product series

59 series - Cetop 5 modular valves

Product ID

Manifold material

Aluminium

Counterbalance valve pilot ratio

4 = 4:1
8 = 8:1

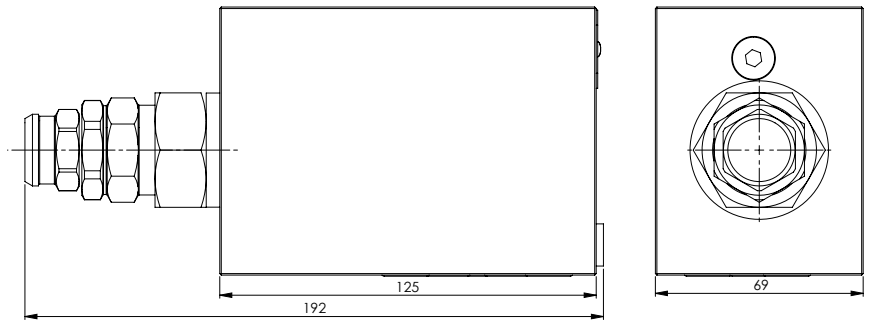
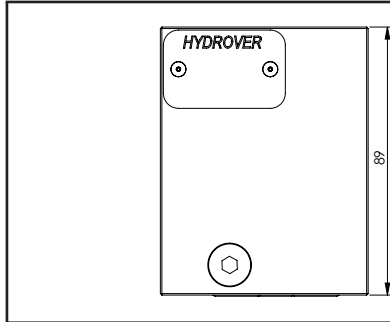
Counterbalance valve adjustment pressure range

2 = 70-210 bar
3 = 140-350 bar

Counterbalance valve adjustment type *

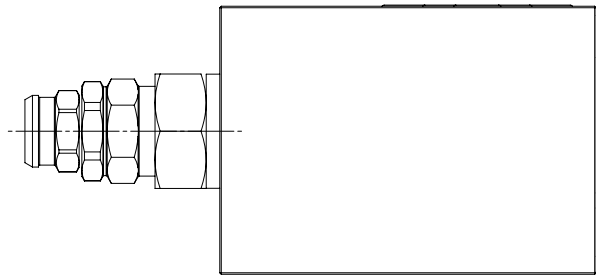
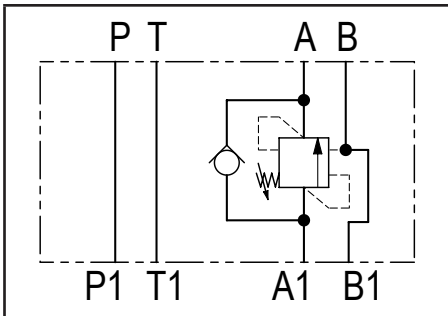
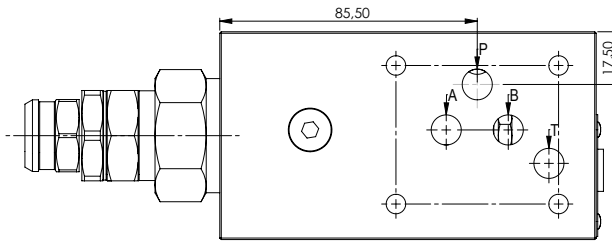
S = Screw

* Omit if not required. To order the product without the counterbalance cartridge valve, omit the adjustment type, pressure range and pilot ratio options: H5917A.
The manifold will still be provided with the corresponding cavity.

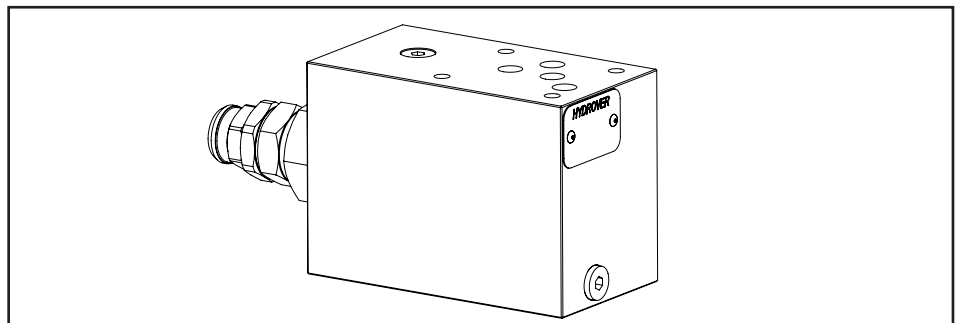
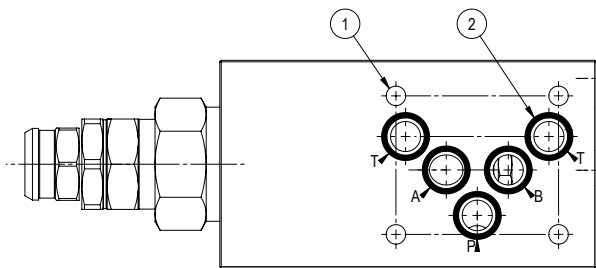


Dimensions in mm

Technical data	
Max. pressure	350 bar
Max. flow	130 lpm *
Pilot ratio	4:1
Weight	6 Kg
Manifold material	Steel



N°	Description	Q.ty
1	Ø 6,5 through hole for mounting	4
2	OR 2050 i. Ø 12,42 cross section 1,78	5
3	Bosch Rexroth counterbalance valve VBSO-SEC-33	1



Ordering code

H	5	9	0	7	S	-	-
---	---	---	---	---	---	---	---

Hydrover product

Product series

59 series - Cetop 5 modular valves

Product ID

Manifold material

Steel

**Counterbalance valve
adjustment pressure range ***

3 =

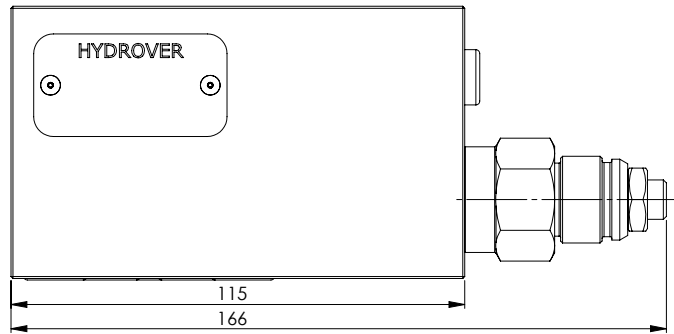
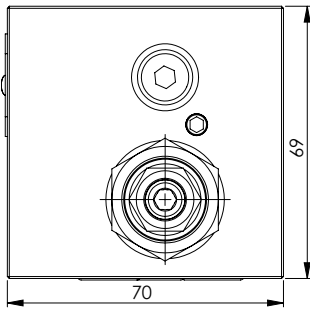
100-350 bar

**Counterbalance valve
adjustment type ***

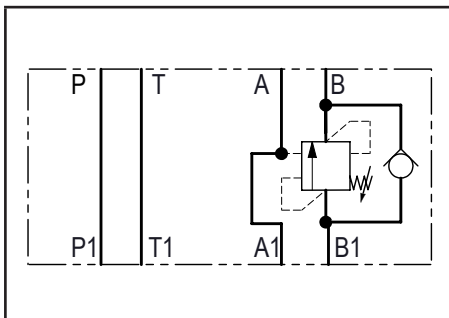
S =

Screw

* Omit if not required. To order the product without the counterbalance cartridge valve, omit the adjustment type and pressure range options: H5907S.
The manifold will still be provided with the corresponding cavity.

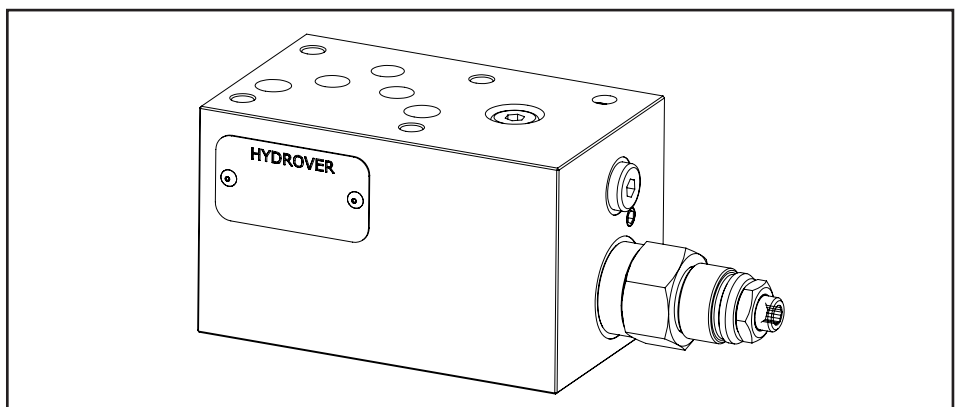
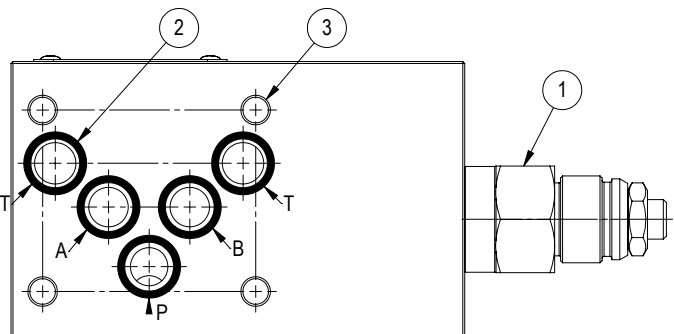
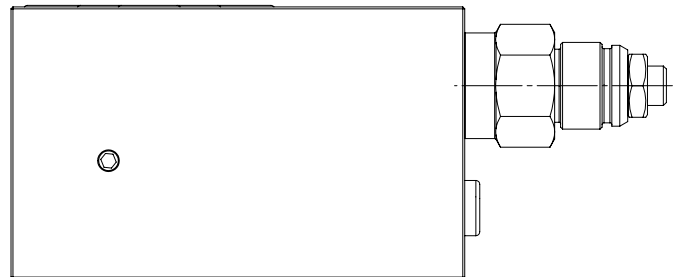
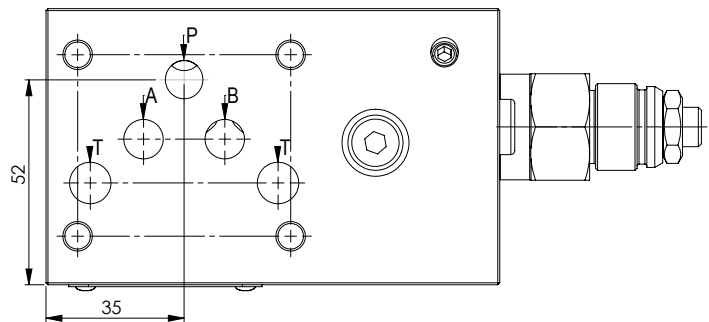


Technical data	
Max. pressure	250 bar
Max. flow	50 lpm *
Weight	1,6 Kg
Manifold material	Aluminium



N°	Description	Q.ty
1	Bosch Rexroth counterbalance valve VBSN-10A *	1
2	OR 2050 i. Ø 12,42 cross section 1,78	5
3	Ø 6,5 through hole for mounting	4

** for complete technical information, click on the blue link or go to the components section at the end of the catalogue*



Ordering code

H	5	9	1	8	A	-	-	-
---	---	---	---	---	---	---	---	---

Hydrover product

Product series

59 series - Cetop 5 modular valves

Product ID

Manifold material

Aluminium

Counterbalance valve pilot ratio

3 = 3:1
8 = 8:1

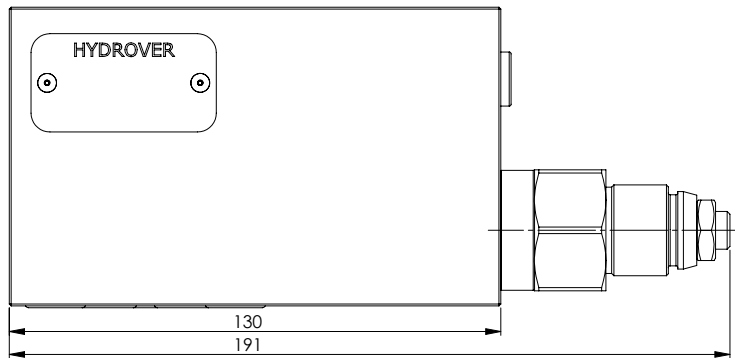
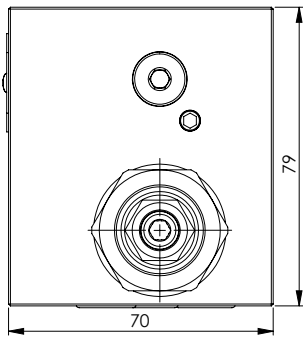
Counterbalance valve adjustment pressure range

2 = 70-210 bar
3 = 140-350 bar

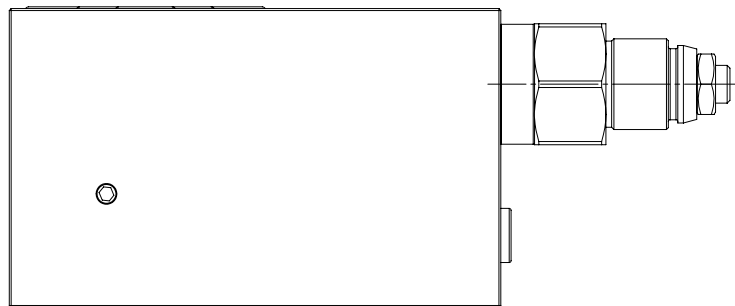
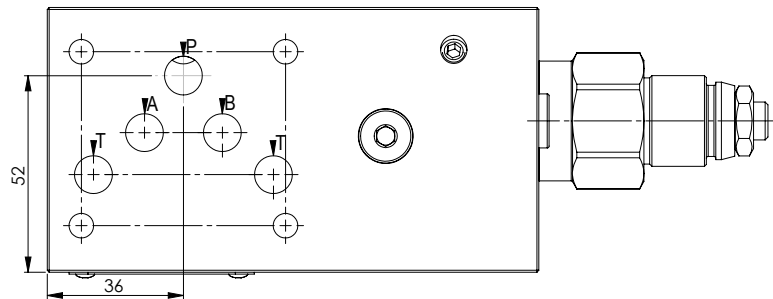
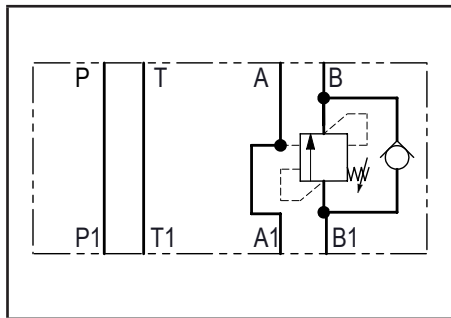
Counterbalance valve adjustment type *

S = Screw

* Omit if not required. To order the product without the counterbalance cartridge valve, omit the adjustment type, pressure range and pilot ratio options: H5918A.
The manifold will still be provided with the corresponding cavity.

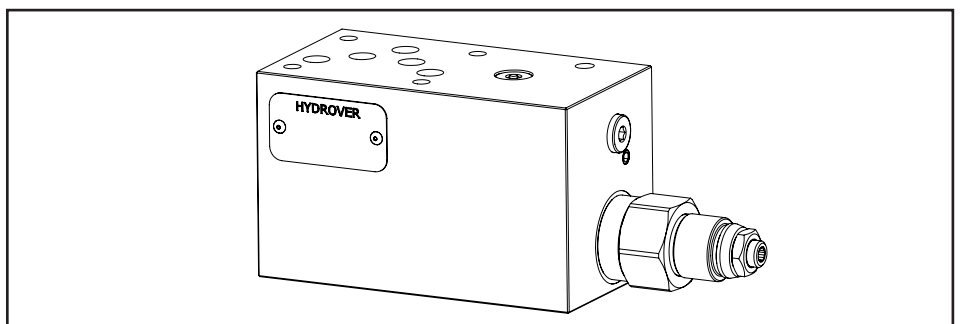
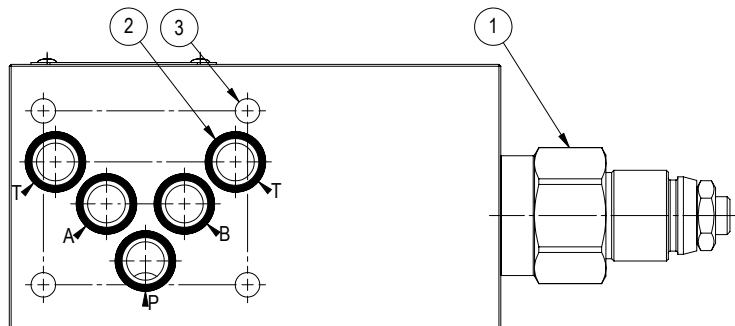


Technical data	
Max. pressure	250 bar
Max. flow	100 lpm *
Weight	2,3 Kg
Manifold material	Aluminium



N°	Description	Q.ty
1	Bosch Rexroth counterbalance valve VBSN-12A *	1
2	OR 2050 i. Ø 12,42 cross section 1,78	5
3	Ø 6,5 through hole for mounting	4

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue



Ordering code

H	5	9	1	9	A	-	-	-
---	---	---	---	---	---	---	---	---

Hydrover product

Product series

59 series - Cetop 5 modular valves

Product ID

Manifold material

Aluminium

Counterbalance valve pilot ratio

4 = 4:1
8 = 8:1

Counterbalance valve adjustment pressure range

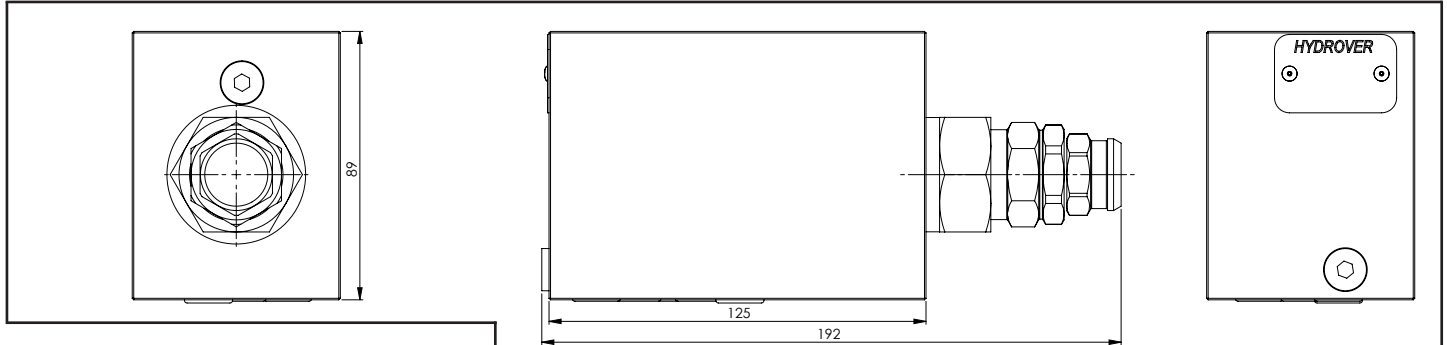
2 = 70-210 bar
3 = 140-350 bar

Counterbalance valve adjustment type *

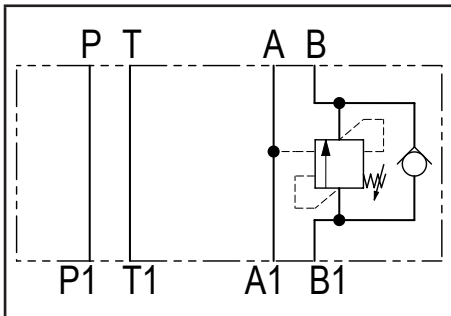
S = Screw

* Omit if not required. To order the product without the counterbalance cartridge valve, omit the adjustment type, pressure range and pilot ratio options: H5919A.
The manifold will still be provided with the corresponding cavity.

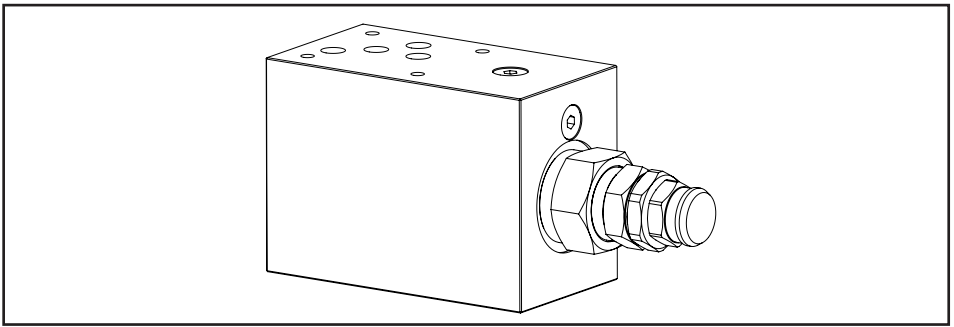
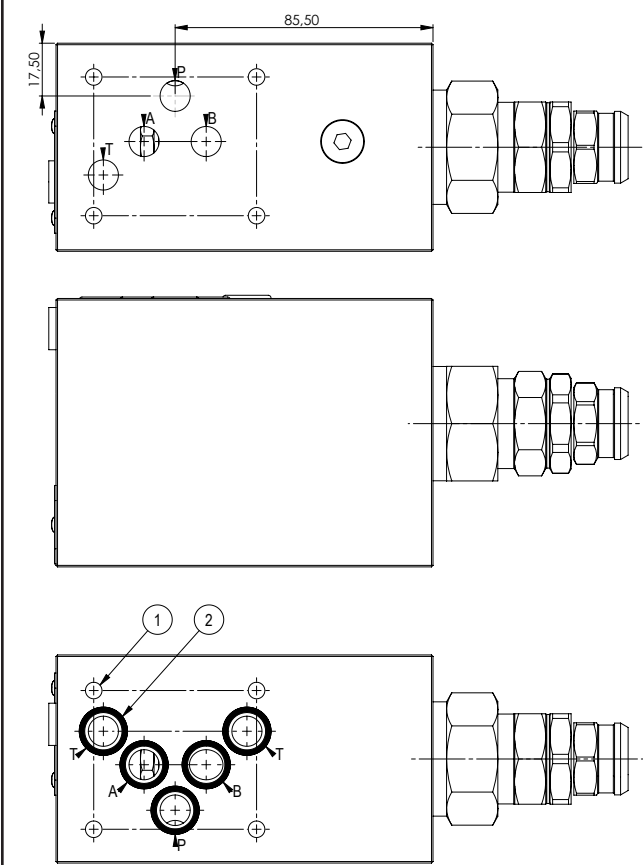
Dimensions in mm



Technical data	
Max. pressure	350 bar
Max. flow	130 lpm *
Pilot ratio	4:1
Weight	6 Kg
Manifold material	Steel



N°	Description	Q.ty
1	Ø 6,5 through hole for mounting	4
2	OR 2050 i. Ø 12,42 cross section 1,78	5
3	Bosch Rexroth counterbalance valve VBSO-SEC-33	1



Ordering code

H	5	9	0	6	S	-	-	-
---	---	---	---	---	---	---	---	---

Hydrover product

Product series

59 series - Cetop 5 modular valves

Product ID

Manifold material

Steel

**Counterbalance valve
adjustment pressure range ***

3 =

100-350 bar

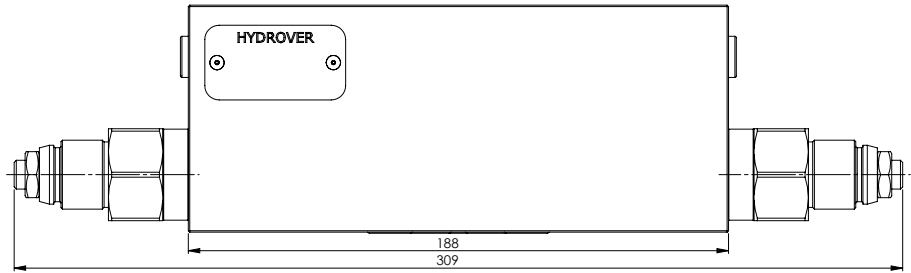
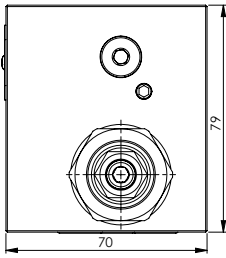
**Counterbalance valve
adjustment type ***

S =

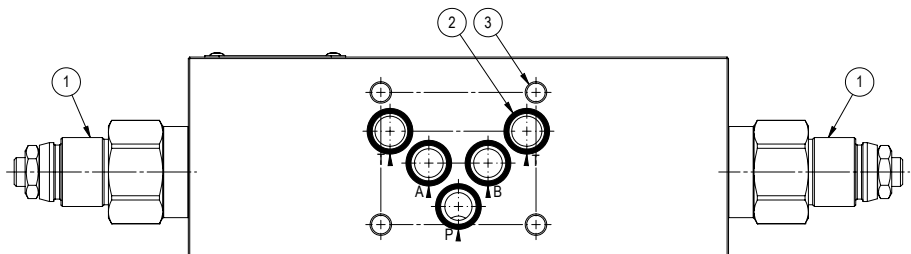
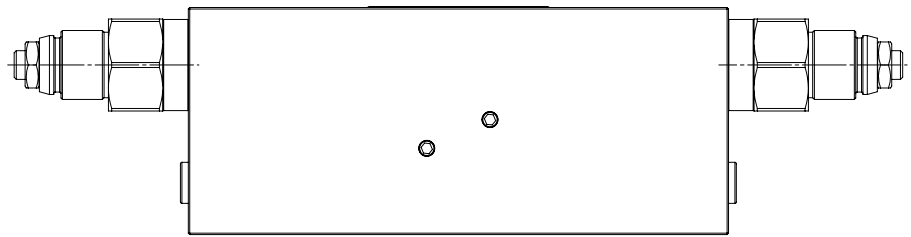
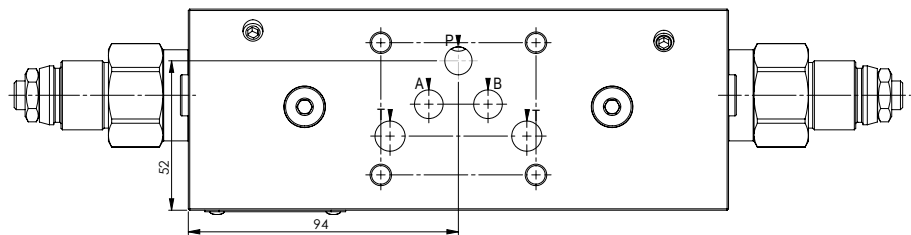
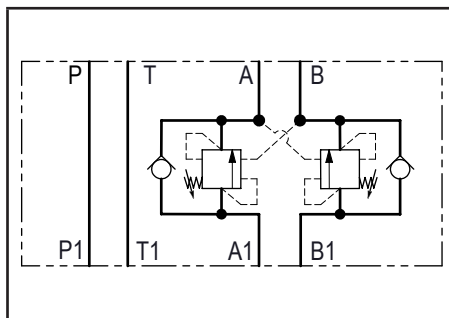
Screw

* Omit if not required. To order the product without the counterbalance cartridge valve, omit the adjustment type and pressure range options: H5906S.
The manifold will still be provided with the corresponding cavity.

Dimensions in mm

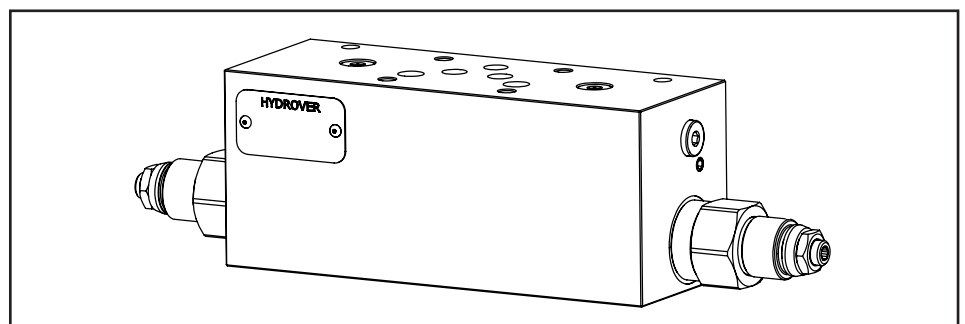


Technical data	
Max. pressure	250 bar
Max. flow	100 lpm *
Weight	3,4 Kg
Manifold material	Aluminium



N°	Description	Q.ty
1	Bosch Rexroth counterbalance valve VBSN-12A *	2
2	OR 2050 i. Ø 12,42 cross section 1,78	5
3	Ø 6,5 through hole for mounting	4

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue



Ordering code

H	5	9	1	4	A	-	-	-	-	-	-	-
---	---	---	---	---	---	---	---	---	---	---	---	---

Hydrover product

Product series

59 series - Cetop 5 modular valves

Product ID

Manifold material

Aluminium

Counterbalance valve adjustment type on A *

Screw

= S

Counterbalance valve adjustment pressure range on A *

70-210 bar

= 2

140-350 bar

= 3

Counterbalance valve

pilot ratio

on B *

4 = 4:1

8 = 8:1

Counterbalance valve adjustment pressure range on B *

2 = 70-210 bar

3 = 140-350 bar

Counterbalance valve adjustment type on B *

S =

Screw

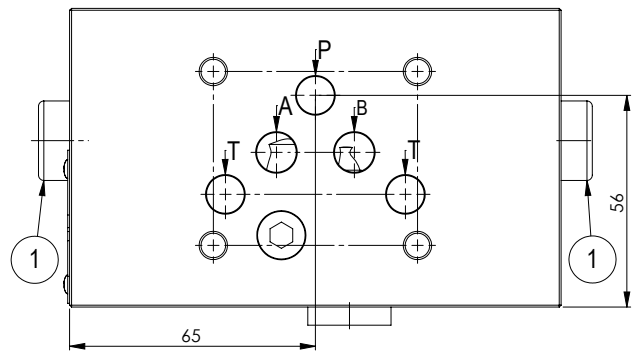
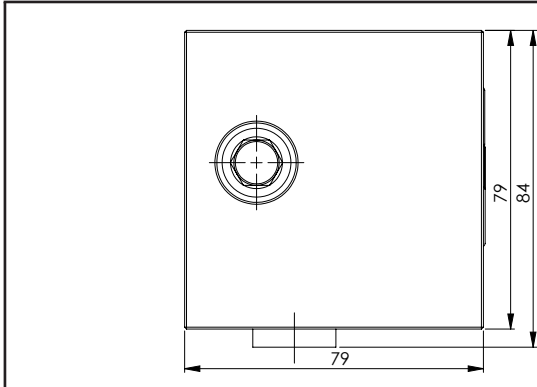
Counterbalance valve

pilot ratio on A *

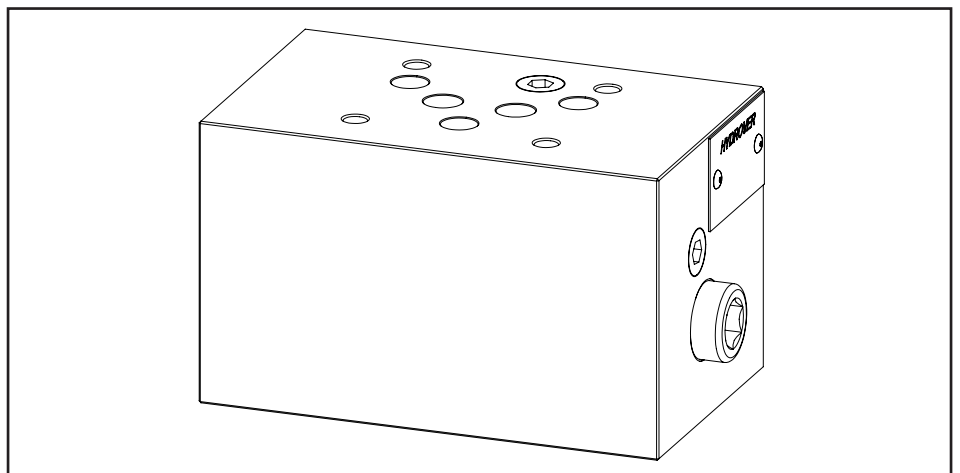
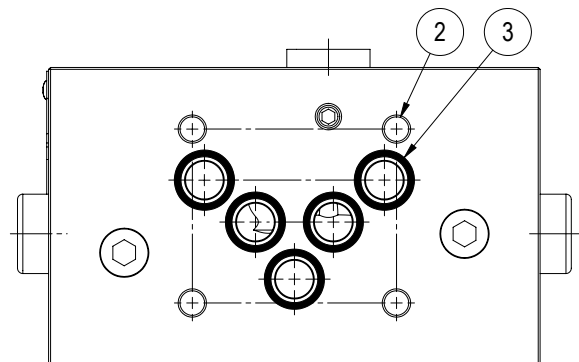
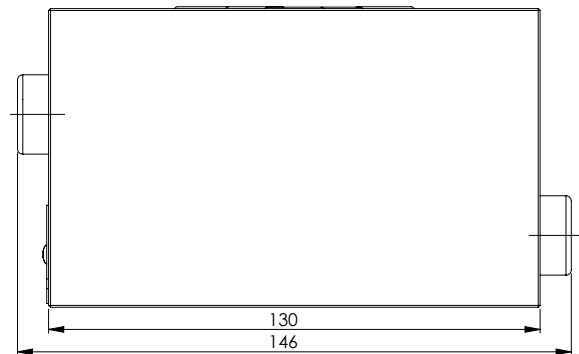
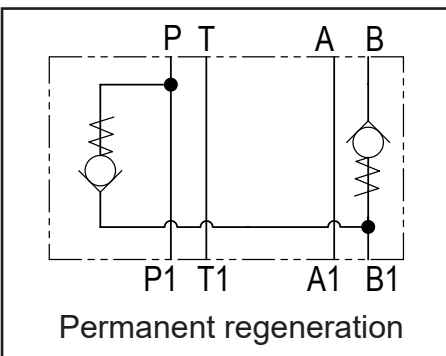
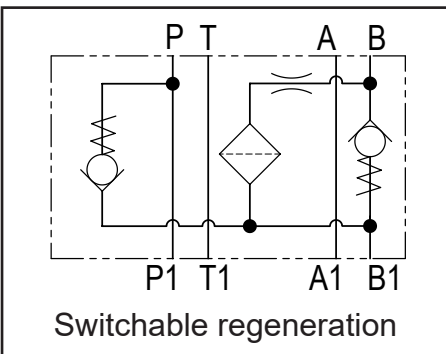
4 = 4:1

8 = 8:1

* Omit if not required. To order the product without the counterbalance cartridge valves, omit the adjustment type, pressure range and pilot ratio options: H5914A.
The manifold will still be provided with the corresponding cavities.



Technical data	
Max. pressure	350 bar
Input max. flow	60 lpm*
Regenerated max. flow	60 lpm*
* The sum of both must not exceed the maximum flow rate allowed by the Cetop 5 solenoid valve.	
Weight	2,2 Kg
Manifold material	Steel



N°	Description	Q.ty
1	Bosch Rexroth check valve VUM1.060	2
2	Ø 6,5 through hole for mounting	4
3	OR 2050 i. Ø 12,42 cross section 1,78	5

Ordering code

H	5	9	0	5	S	-	-
---	---	---	---	---	---	---	---

Hydrover product

Product series

59 series - Cetop 5 modular valves

Product ID

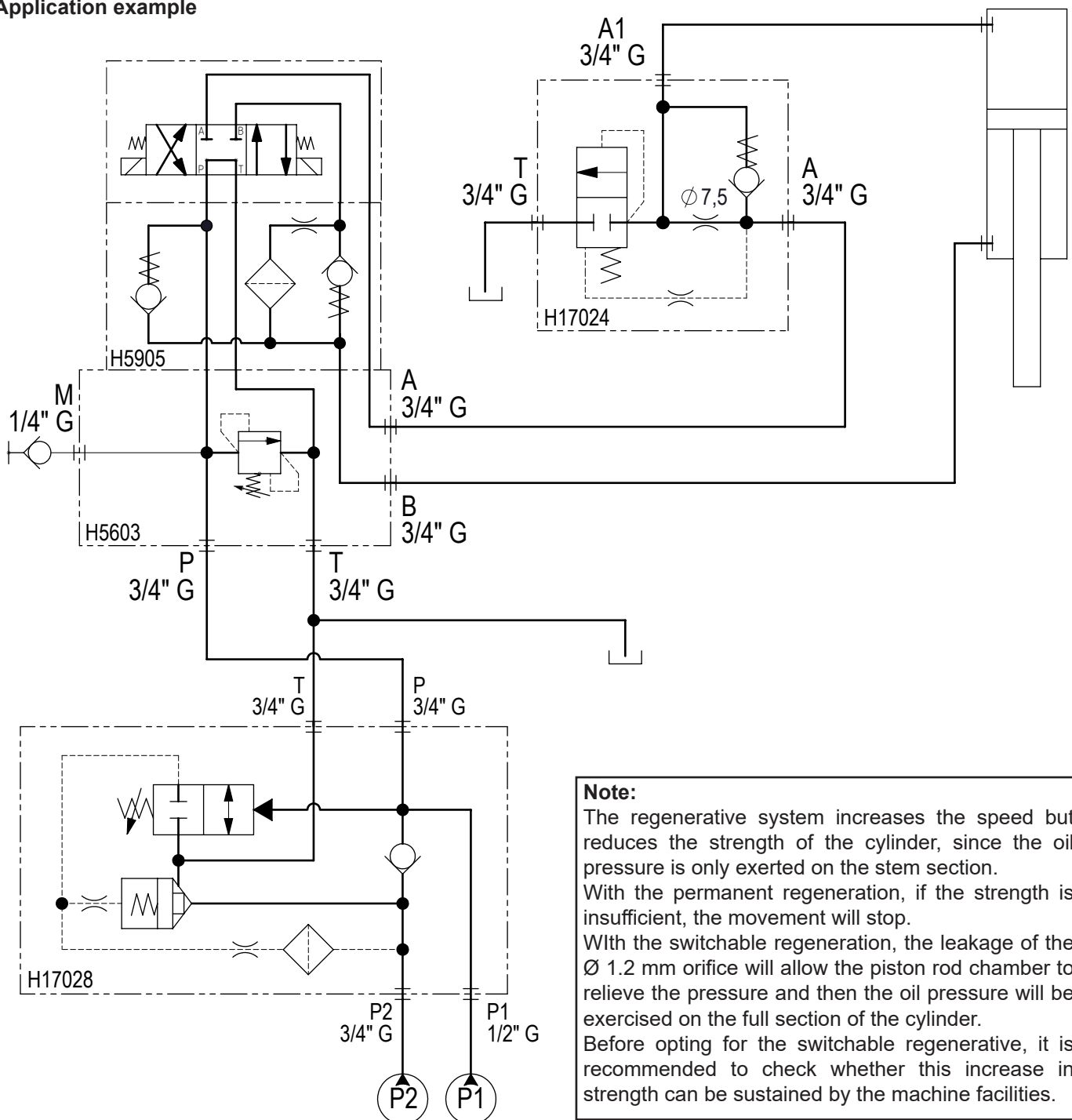
Regeneration type

RP = Permanent regeneration
RE = Switchable regeneration

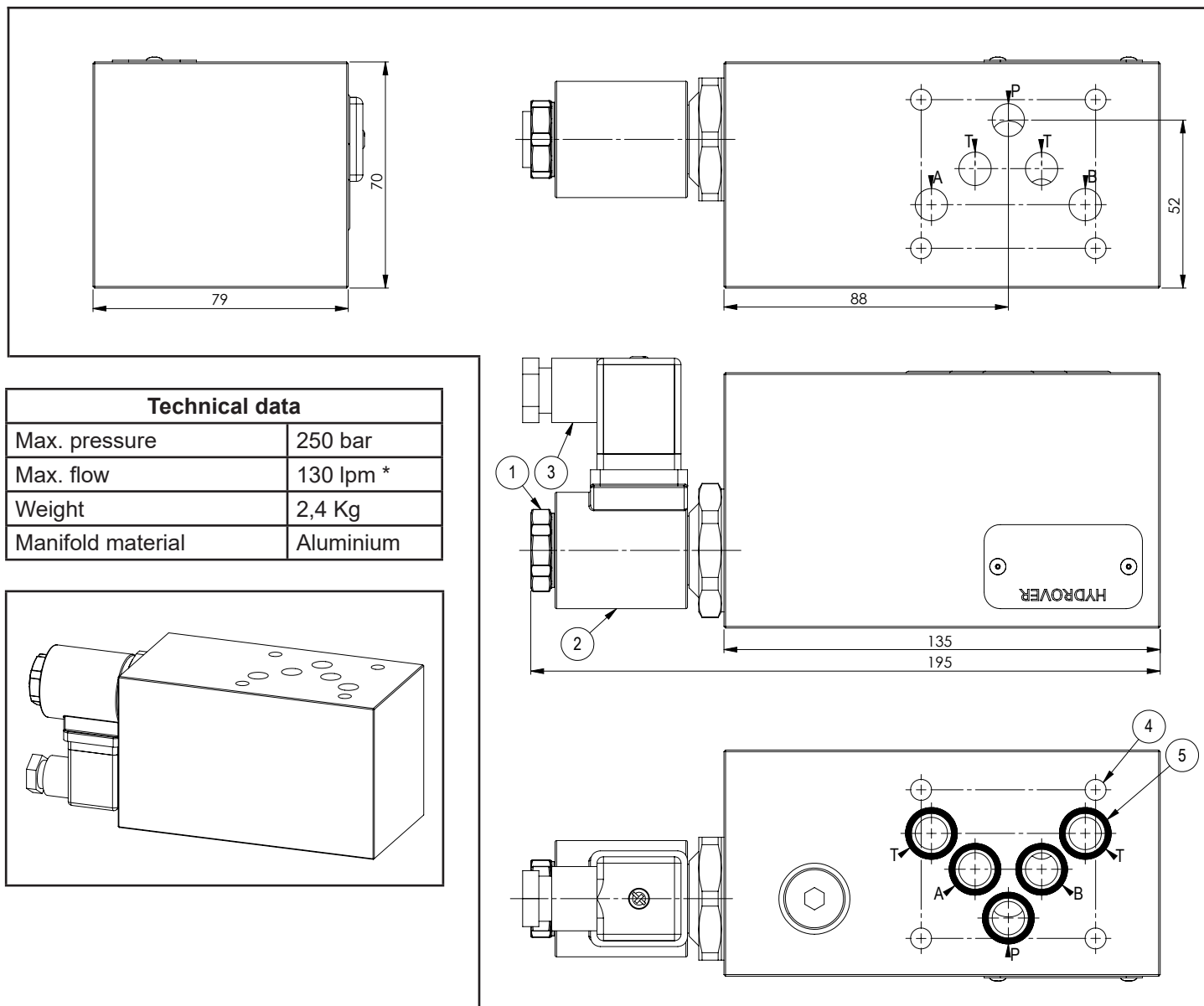
Manifold material

Steel

Application example



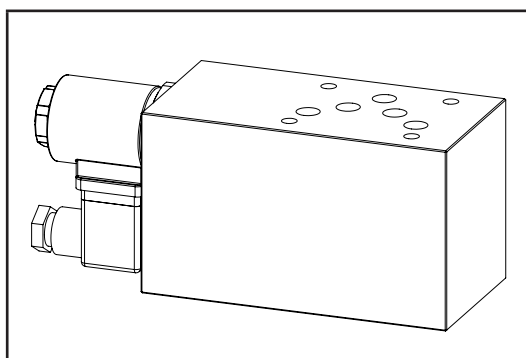
Note:
The regenerative system increases the speed but reduces the strength of the cylinder, since the oil pressure is only exerted on the stem section. With the permanent regeneration, if the strength is insufficient, the movement will stop. With the switchable regeneration, the leakage of the Ø 1.2 mm orifice will allow the piston rod chamber to relieve the pressure and then the oil pressure will be exercised on the full section of the cylinder. Before opting for the switchable regenerative, it is recommended to check whether this increase in strength can be sustained by the machine facilities.



Dimensions in mm

Technical data

Max. pressure	250 bar
Max. flow	130 lpm *
Weight	2,4 Kg
Manifold material	Aluminium



N°	Description	Q.ty
1	Bosch Rexroth solenoid valve VEI-16-021-NC OD.15-X-21-Y-000000 * (normally closed) or VEI-16-021-NA OD.15-X-21-Y-000000 * (normally open)	1
2	Bosch Rexroth coil D36 - CLASS H DIN 43650 ISO 4400 *	1
3	Connector DIN 43650 ISO 4400	1
4	Ø 6,5 through hole for mounting	4
5	OR 2050 i. Ø 12,42 cross section 1,78	5

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue

Ordering code

H 5 9 2 4 A - - - - -

Hydrover product

Product series

59 series - Cetop 5 modular valves

Product ID

Manifold material

Aluminium

Solenoid valve spool type *

- Normally open = NA
- Normally closed = NC
- Normally open double lock = 2A
- Normally closed double lock = 2C

Solenoid valve coil connection *

1 = DIN 43650 ISO 4400

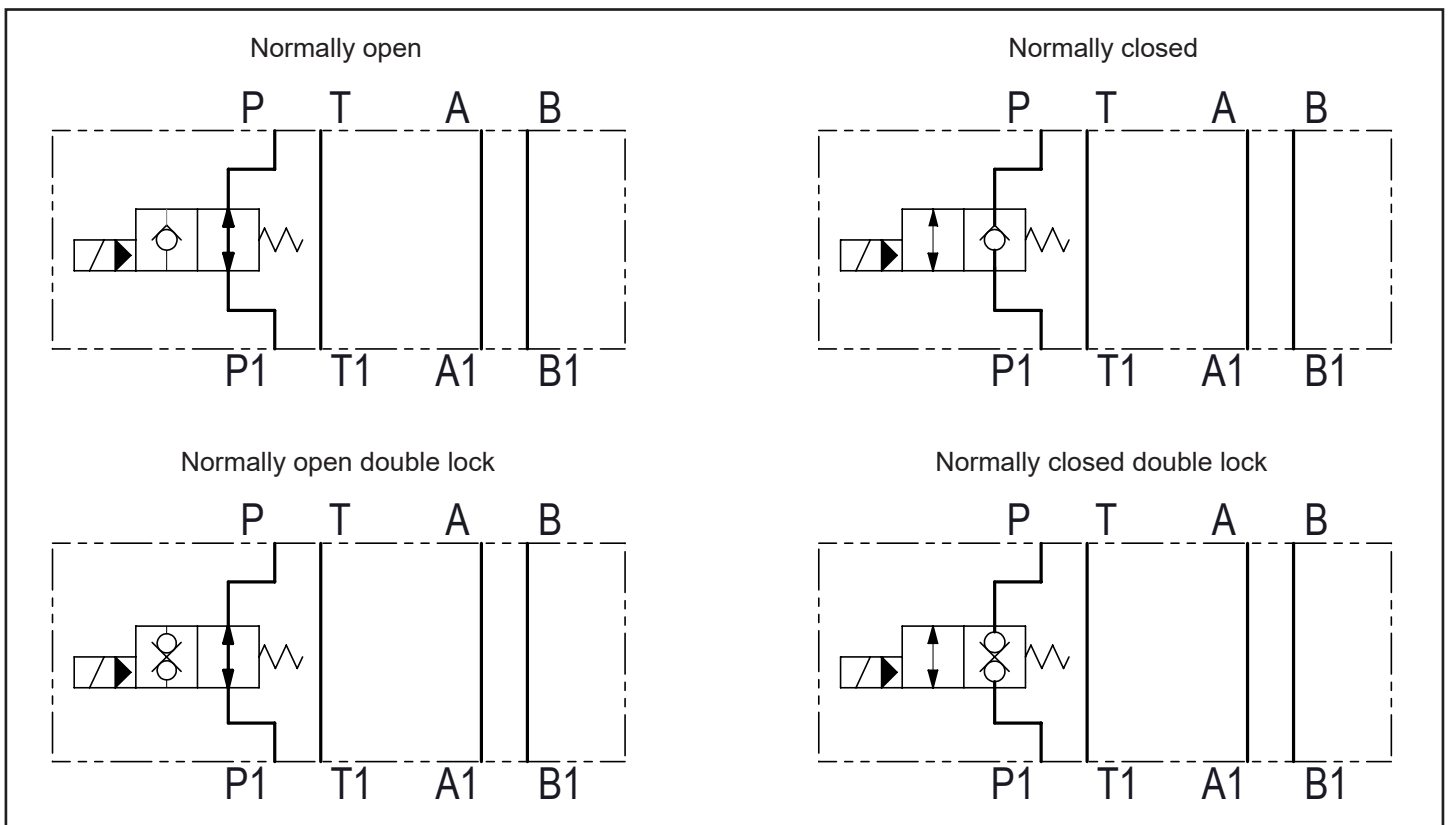
Solenoid valve coil voltage *

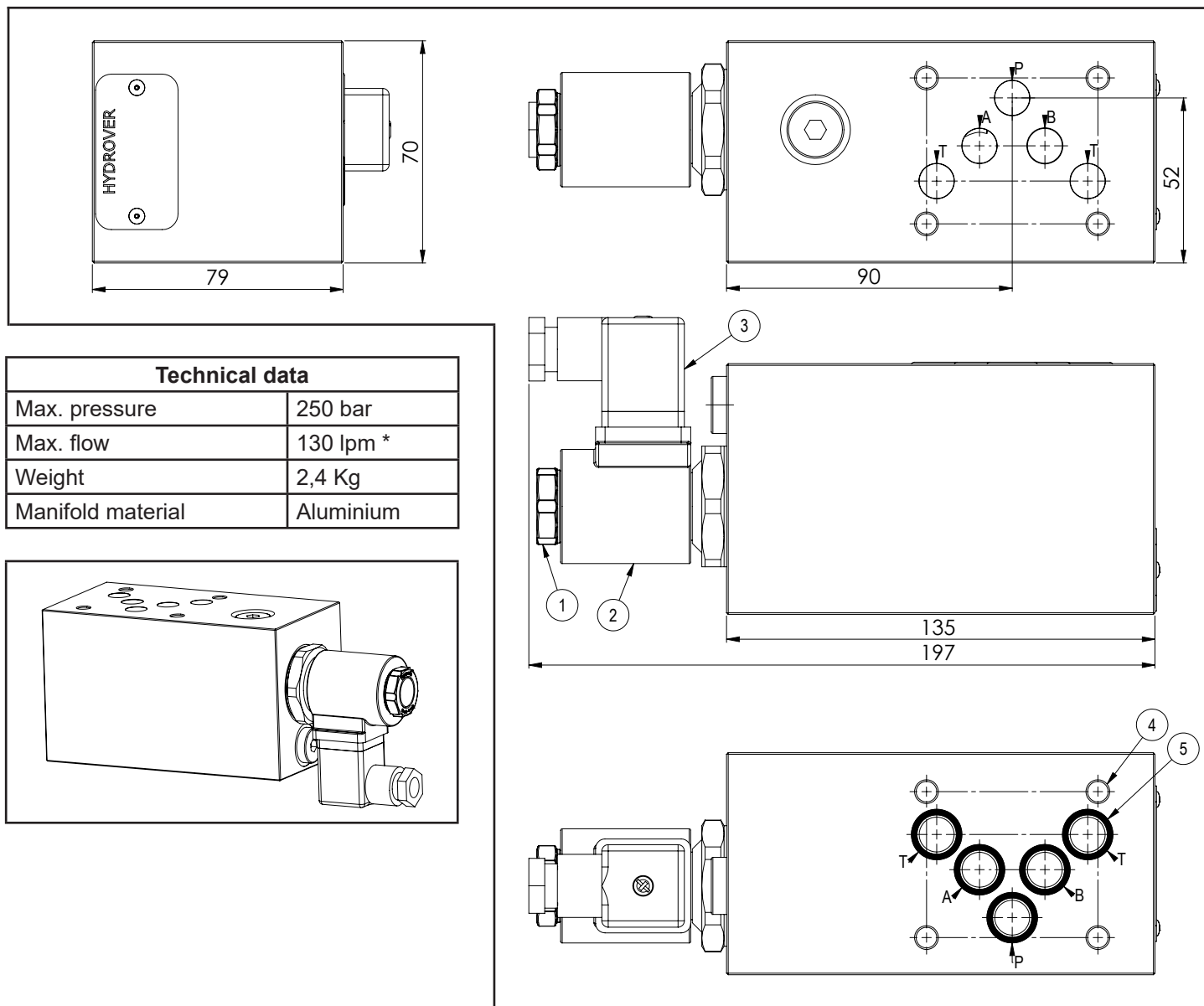
- OB = 12V DC
- OC = 24V DC
- OD = 48V DC
- OU = 110V RAC
- AH = 230V RAC

Solenoid valve manual override *

- E0 = Without
- EP = Push (NA, 2A)
- EV = Screw (NC, 2C)
- EG = Push and twist (NA, 2A)

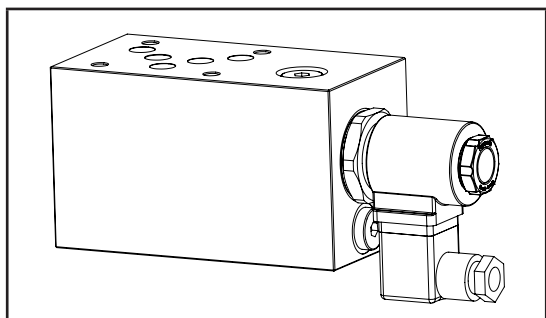
* Omit if not required. For example, to order the product without coil, omit the solenoid valve coil connection and coil voltage options: H5924A-NC-E0.





Dimensions in mm

Technical data	
Max. pressure	250 bar
Max. flow	130 lpm *
Weight	2,4 Kg
Manifold material	Aluminium



N°	Description	Q.ty
1	Bosch Rexroth solenoid valve VEI-16-021-NC OD.15-X-21-Y-000000 * (normally closed) or VEI-16-021-NA OD.15-X-21-Y-000000 * (normally open)	1
2	Bosch Rexroth coil D36 - CLASS H DIN 43650 ISO 4400 *	1
3	Connector DIN 43650 ISO 4400	1
4	Ø 6,5 through hole for mounting	4
5	OR 2050 i. Ø 12,42 cross section 1,78	5

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue

Ordering code

H 5 9 0 9 A - - - - -

Hydrover product

Product series

59 series - Cetop 5 modular valves

Product ID

Manifold material

Aluminium

Solenoid valve spool type *

- Normally open = NA
- Normally closed = NC
- Normally open double lock = 2A
- Normally closed double lock = 2C

Solenoid valve coil connection *

1 = DIN 43650 ISO 4400

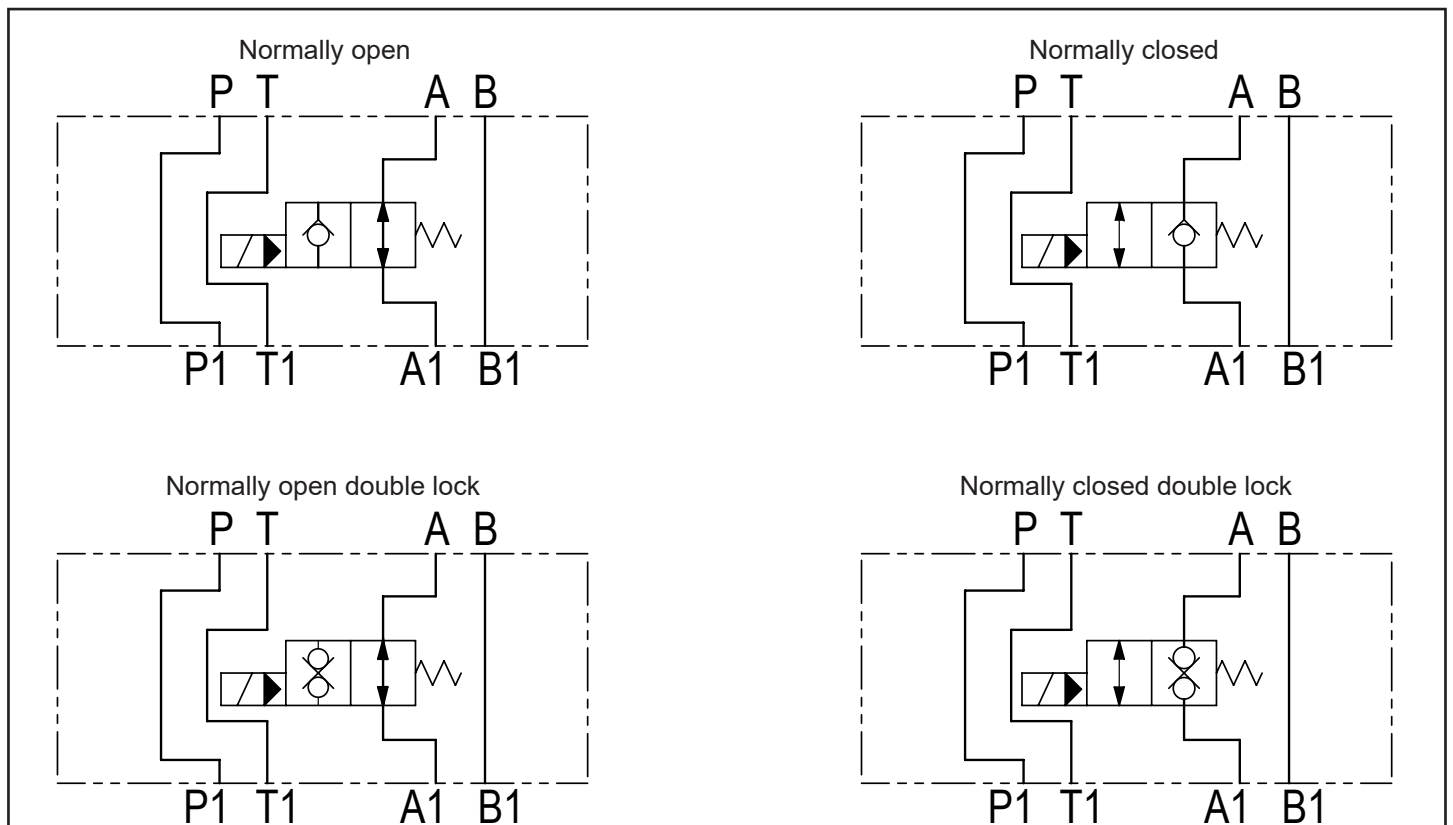
Solenoid valve coil voltage *

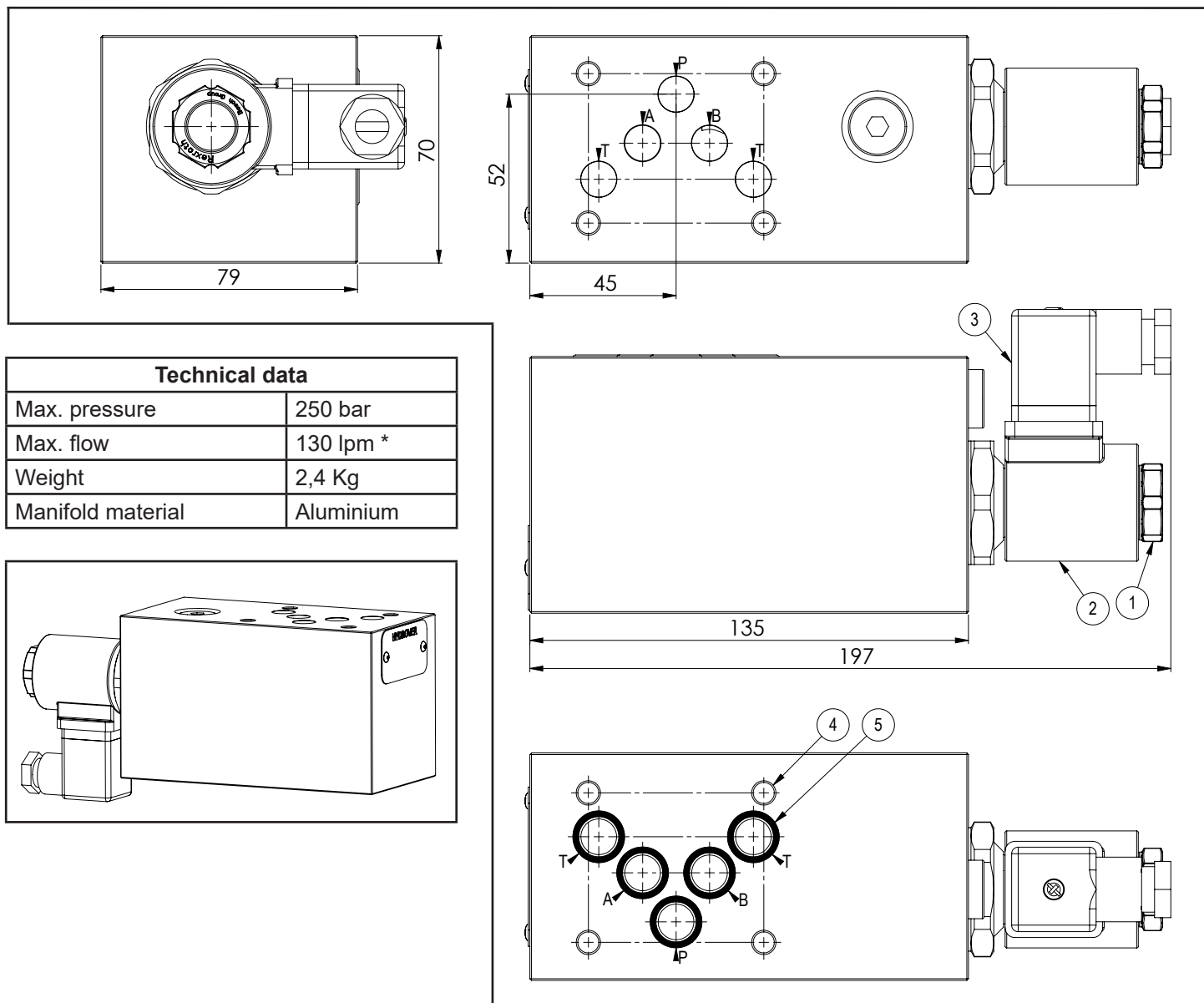
- OB = 12V DC
- OC = 24V DC
- OD = 48V DC
- OU = 110V RAC
- AH = 230V RAC

Solenoid valve manual override *

- E0 = Without
- EP = Push (NA, 2A)
- EV = Screw (NC, 2C)
- EG = Push and twist (NA, 2A)

* Omit if not required. For example, to order the product without coil, omit the solenoid valve coil connection and coil voltage options: H5909A-NC-E0.





Dimensions in mm

N°	Description	Q.ty
1	Bosch Rexroth solenoid valve VEI-16-021-NC OD.15-X-21-Y-000000 * (normally closed) or VEI-16-021-NA OD.15-X-21-Y-000000 * (normally open)	1
2	Bosch Rexroth coil D36 - CLASS H DIN 43650 ISO 4400 *	1
3	Connector DIN 43650 ISO 4400	1
4	Ø 6,5 through hole for mounting	4
5	OR 2050 i. Ø 12,42 cross section 1,78	5

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue

Ordering code

H 5 9 1 0 A - - - - -

Hydrover product

Product series

59 series - Cetop 5 modular valves

Product ID

Manifold material

Aluminium

Solenoid valve spool type *

- Normally open = NA
- Normally closed = NC
- Normally open double lock = 2A
- Normally closed double lock = 2C

Solenoid valve coil connection *

1 = DIN 43650 ISO 4400

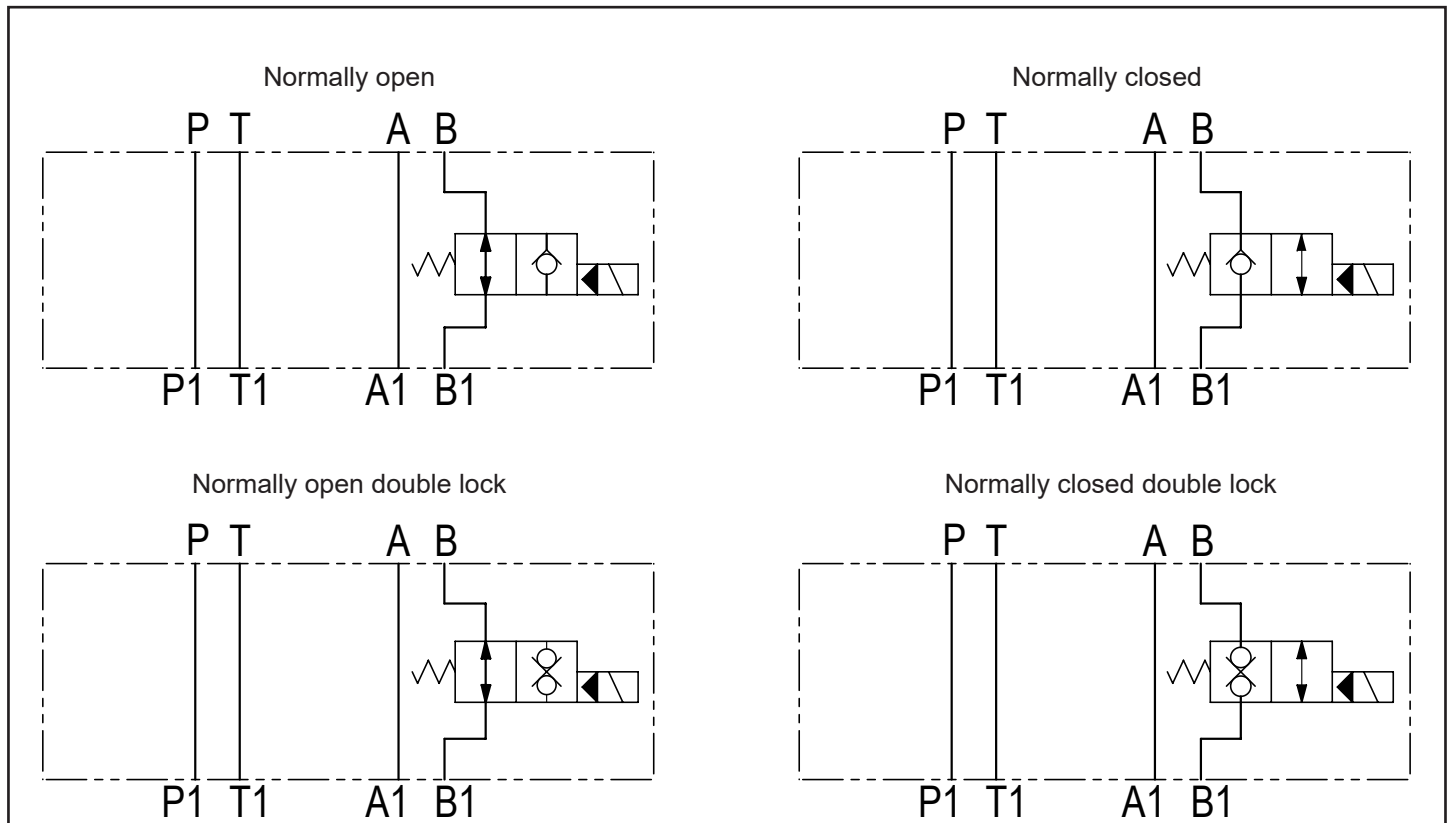
Solenoid valve coil voltage *

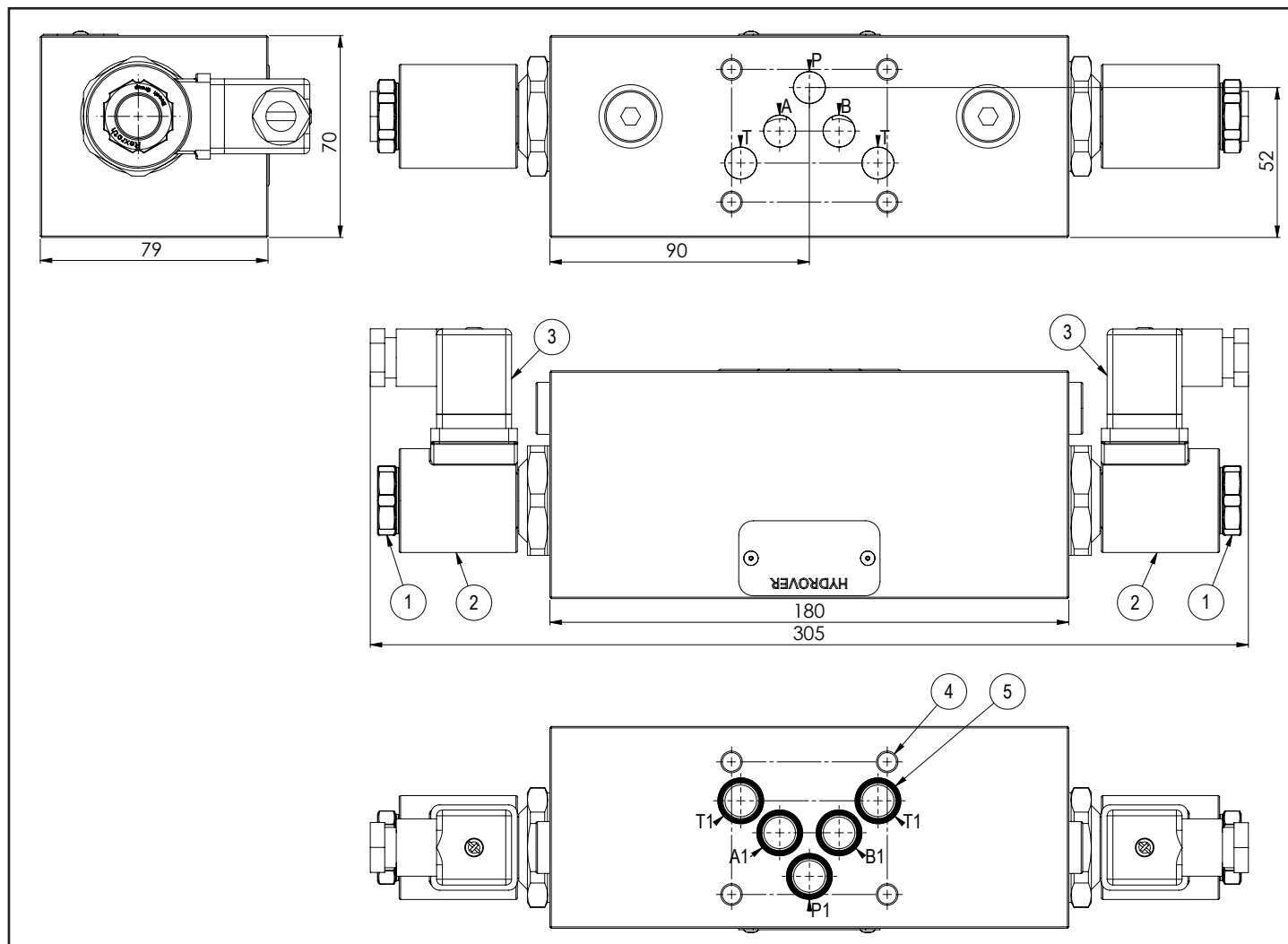
- OB = 12V DC
- OC = 24V DC
- OD = 48V DC
- OU = 110V RAC
- AH = 230V RAC

Solenoid valve manual override *

- E0 = Without
- EP = Push (NA, 2A)
- EV = Screw (NC, 2C)
- EG = Push and twist (NA, 2A)

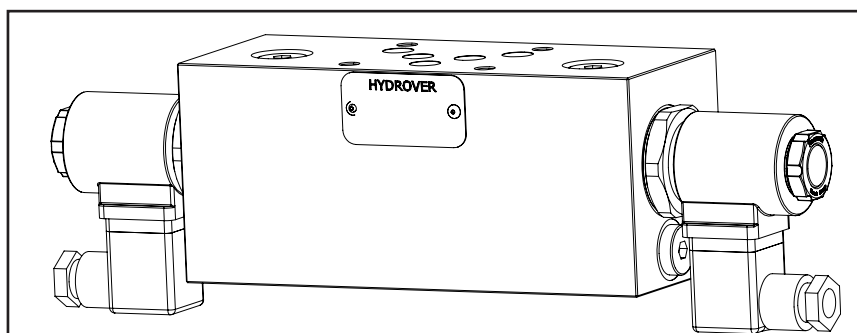
* Omit if not required. For example, to order the product without coil, omit the solenoid valve coil connection and coil voltage options: H5910A-NC-E0.





Dimensions in mm

Technical data	
Max. pressure	Aluminium: 250 bar Steel: 350 bar
Max. flow	130 lpm *
Weight	Aluminium: 3,6 Kg Steel: 7,7 Kg
Manifold material	Aluminium or steel



N°	Description	Q.ty
1	Bosch Rexroth solenoid valve VEI-16-021-NC OD.15-X-21-Y-000000 * (normally closed) or VEI-16-021-NA OD.15-X-21-Y-000000 * (normally open)	2
2	Bosch Rexroth coil D36 - CLASS H DIN 43650 ISO 4400 *	2
3	Connector DIN 43650 ISO 4400	2
4	Ø 6,5 through hole for mounting	4
5	OR 2050 i. Ø 12,42 cross section 1,78	5

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue

Ordering code

H 5 9 1 1 - - - - -

Hydrover product

Product series

59 series - Cetop 5 modular valves

Product ID

Manifold material

Aluminium = A
Steel = S

Solenoid valve spool type *

Normally open = NA
Normally closed = NC
Normally open double lock = 2A
Normally closed double lock = 2C

Solenoid valves coil connection *

1 = DIN 43650 ISO 4400

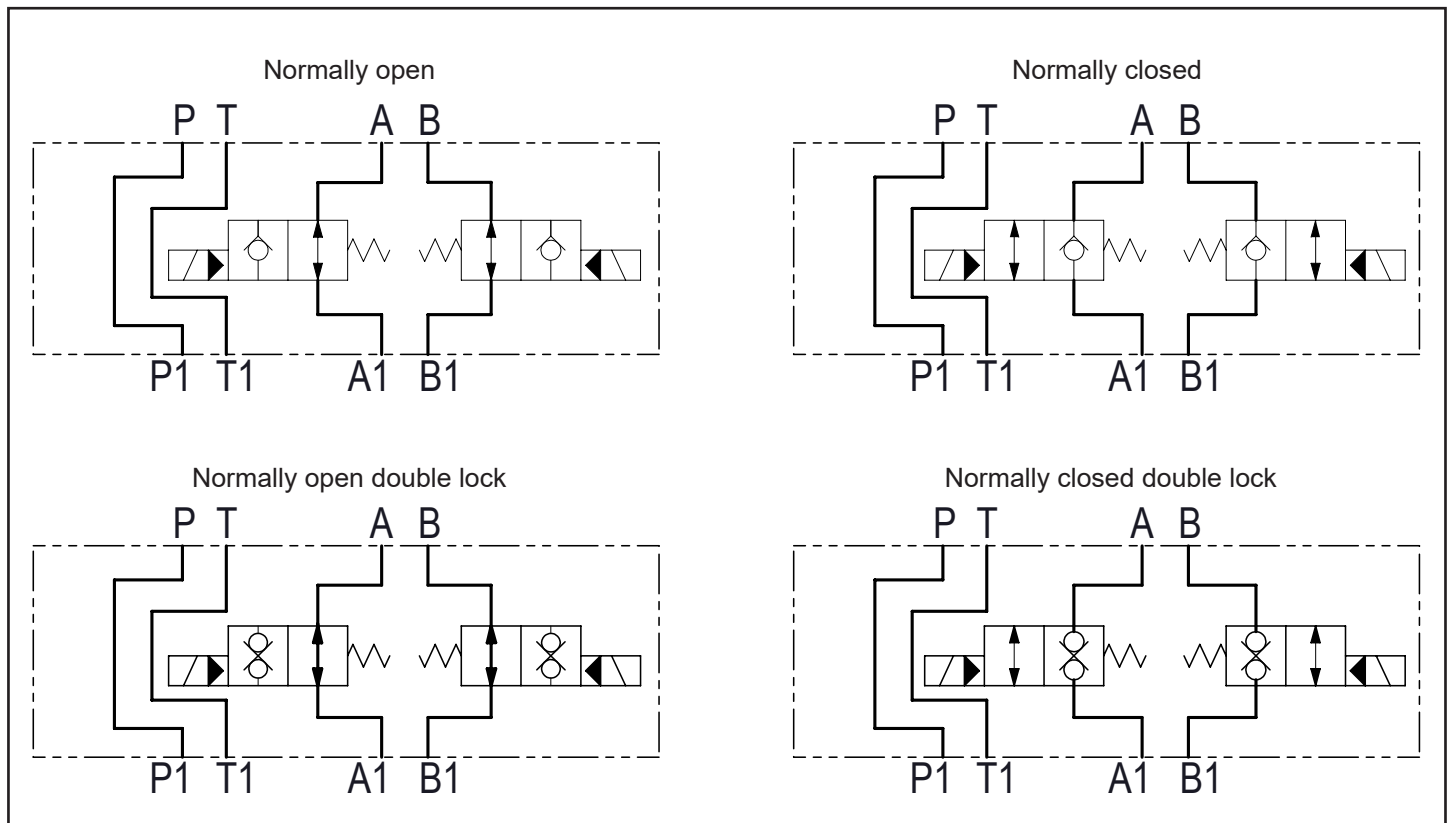
Solenoid valve coil voltage *

OB = 12V DC
OC = 24V DC
OD = 48V DC
OU = 110V RAC
AH = 230V RAC

Solenoid valves manual override *

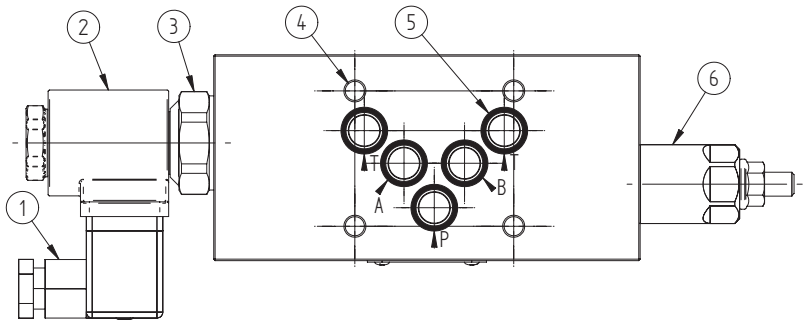
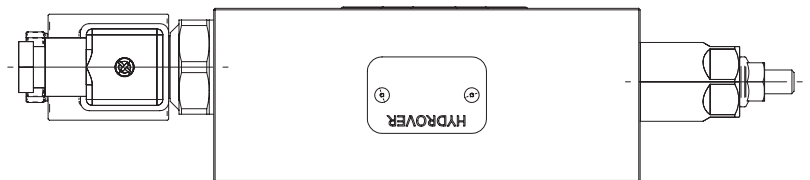
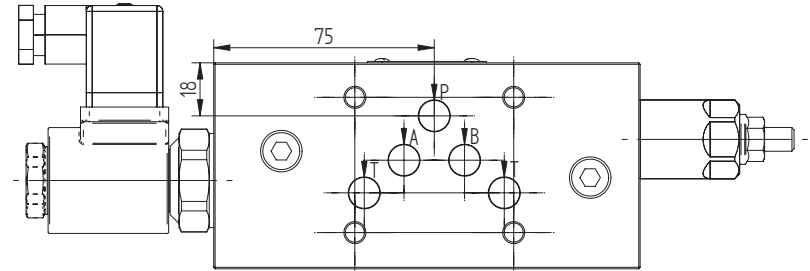
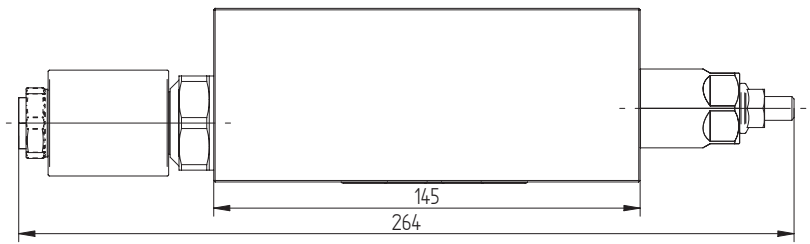
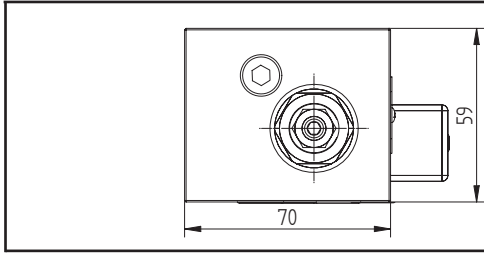
E0 = Without
EP = Push (NA, 2A)
EV = Screw (NC, 2C)
EG = Push and twist (NA, 2A)

* Omit if not required. For example, to order the product without coils, omit the solenoid valves coil connection and coil voltage options: H5911A-NC-E0.

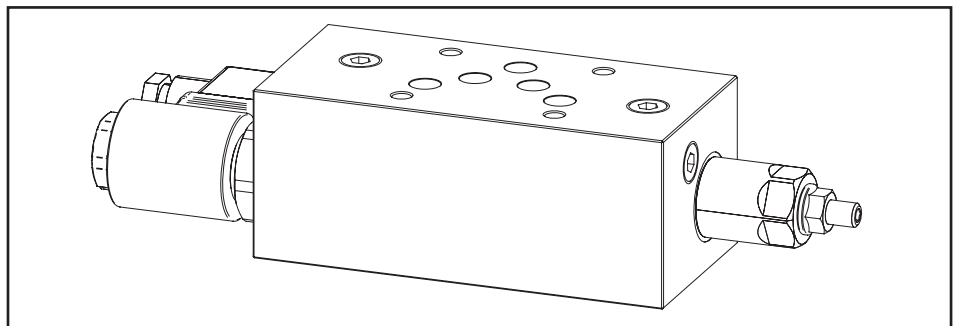
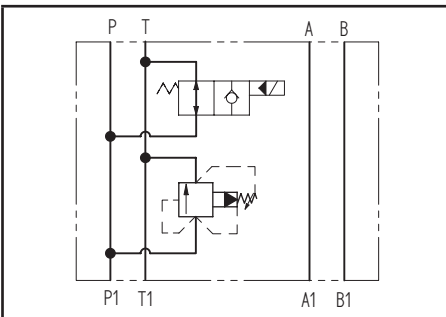


Cetop 5 modular relief and bypass valve **H5904**

Dimensions in mm



Technical data	
Max. pressure	250 bar
Max. flow	70 lpm *
Weight	2,1 Kg
Manifold material	Aluminium



N°	Description	Q.ty
1	Connector DIN 43650 ISO 4400	1
2	Bosch Rexroth coil D36 - CLASS H DIN 43650 ISO 4400 *	1
3	Bosch Rexroth solenoid valve OD.15.06.17-Y-000000 depicted without manual override *	1
4	Ø 6,5 through hole for mounting	4
5	OR 2050 i. Ø 12,42 cross section 1,78	5
6	Bosch Rexroth relief valve VSPN-10A * depicted with screw adjustment	1

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue

H5904

Ordering code

H	5	9	0	4	A	-	-	-	-	-	-	-	-
---	---	---	---	---	---	---	---	---	---	---	---	---	---

Hydrover product

Product series

59 series - Cetop 5 modular valves

Product ID

Manifold material

Aluminium

Relief valve adjustment type *

Screw = S
Knob = K

Relief valve adjustment pressure range *

35-140 bar = 1
70-280 bar = 2
140-420 bar = 3
35-350 bar (adj. knob) = 3

Solenoid valve coil connection *

1 = DIN 43650
ISO 4400

Solenoid valve coil voltage *

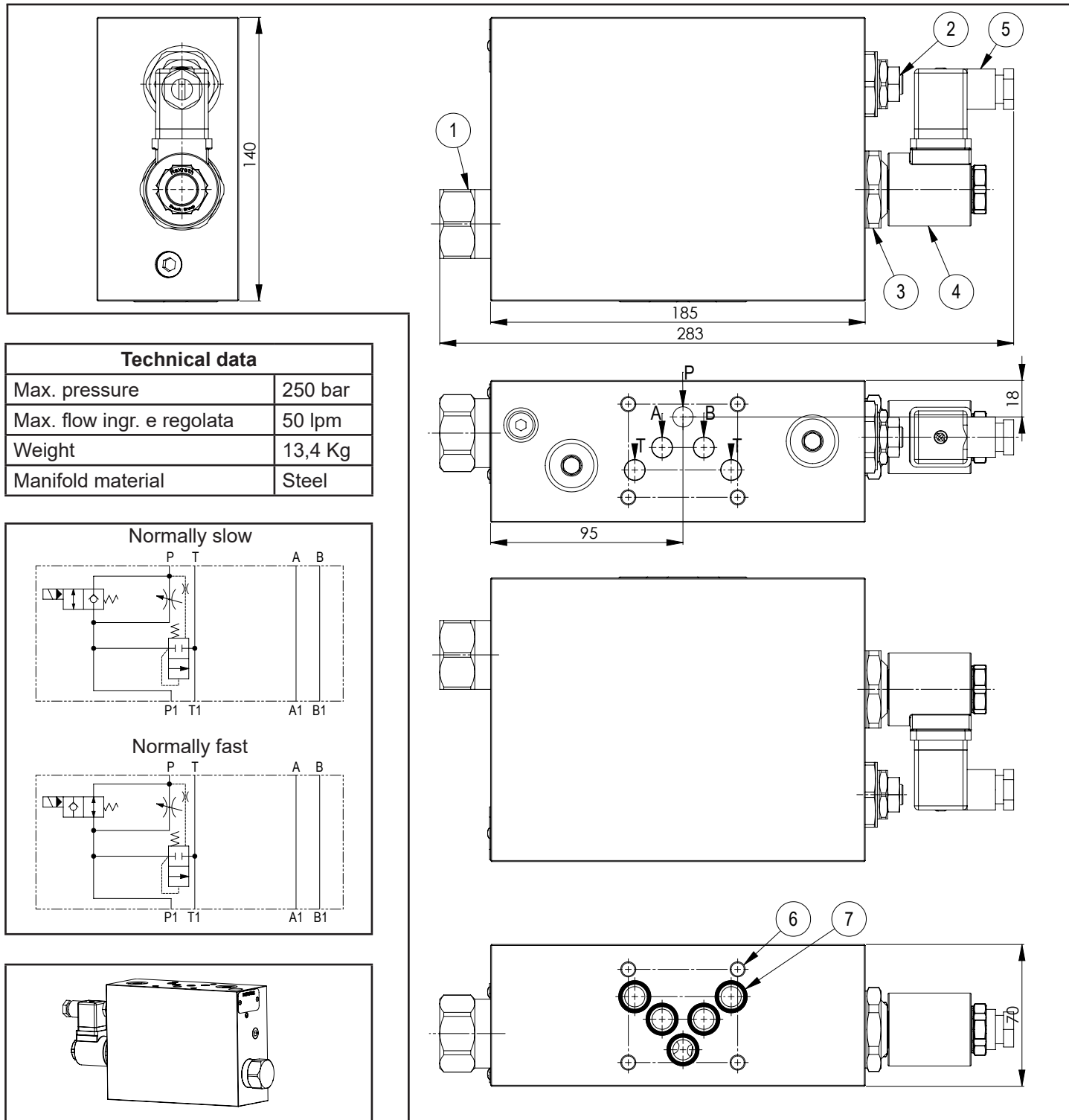
OB = 12V DC
OC = 24V DC
OD = 48V DC
OU = 110V RAC
AH = 230V RAC

Solenoid valve manual override *

E0 = Without
EP = Push
EG = Push and twist

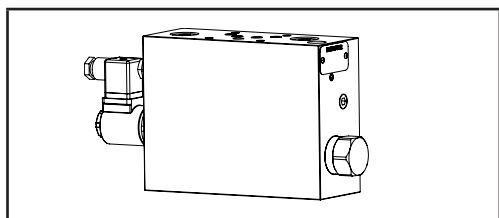
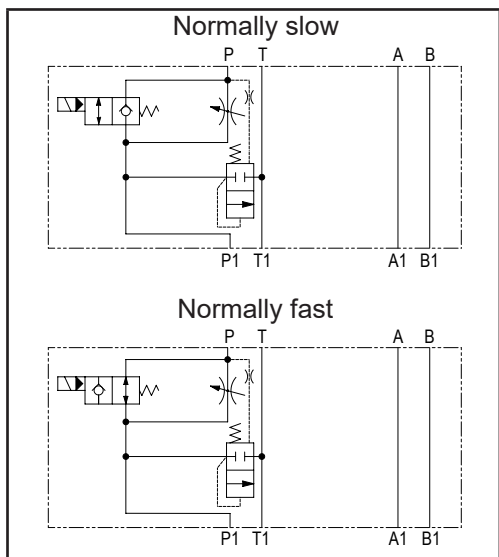
* Omit if not required. To order the product without the relief cartridge valve, omit the pressure range and adjustment type options: eg. H5904A-E0-OC1.
The manifold will still be provided with the corresponding cavity.
To inhibit the relief cartridge valve, replace the related options with TL: eg. H5904A-TL-E0-OC1.
In the cavity it will be mounted a long plug.

Valve	Cavity	Long plug code
Pressure relief valve VSPN-10A	CA-10A-2N	0489A2008500000



Dimensions in mm

Technical data	
Max. pressure	250 bar
Max. flow ingr. e regolata	50 lpm
Weight	13,4 Kg
Manifold material	Steel



N°	Description	Q.ty
1	Pressure compensator	1
2	Bosch Rexroth bidirectional flow restrictor OD.21.01-X-04 * depicted with screw adjustment	1
3	Bosch Rexroth solenoid valve for fast slow function VEI-16-021-NC OD.15.05.21-Y-000000 * (normally slow) o VEI-16-021-NA OD.15.06.21-Y-000000 * (normally fast)	1
4	Bosch Rexroth coil D36 - CLASS H DIN 43650 ISO 4400 *	1
5	Connector DIN 43650 ISO 4400	1
6	Ø 6,5 through hole for mounting	4
7	OR 2050 i. Ø 12,42 cross section 1,78	5

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue

Ordering code

H 5 9 0 8 S _ _ Q - _ _ - _ _ - _ _

Hydrover product

Product series

59 series - Cetop 5 modular valves

Product ID

Manifold material

Steel

Compensator spring

Molla 5.5 bar (standard) = 6
 Molla 12.5 bar = 1
 Molla 19 bar = 2

Flow regulator adjustment type

Screw = S
 Knob = K

Fast slow solenoid valve

coil connection *

1 = DIN 43650
 ISO 4400

Solenoid valve coil voltage *

OB = 12V DC
 OC = 24V DC
 OD = 48V DC
 OU = 110V RAC
 AH = 230V RAC

Fast slow solenoid valve manual override *

E0 = Without
 EP = Push (NR)
 EV = Screw (NL)
 EG = Push and twist (NR)

Slow or fast in normal position *

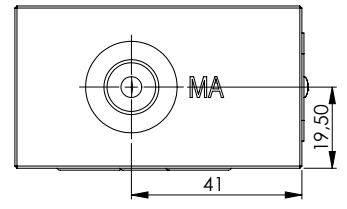
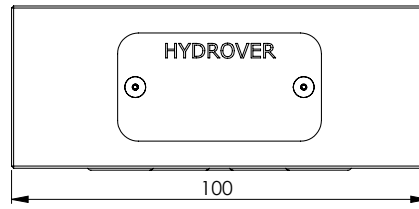
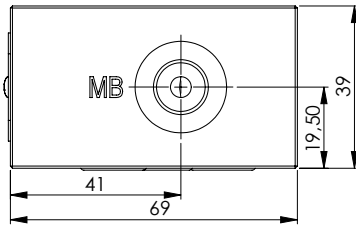
NL = Normally slow
 NR = Normally fast

* Omit if not required. To order the product without the fast slow solenoid cartridge valve, omit the slow or fast in normal position, manual override, coil voltage and coil connection options: eg. H5908S1SQ.
 The manifold will still be provided with the corresponding cavity.
 To inhibit the fast slow speed function, replace the related solenoid valve options with TL: eg H5908S1SQ-TL.
 In the cavity it will be mounted a long plug.

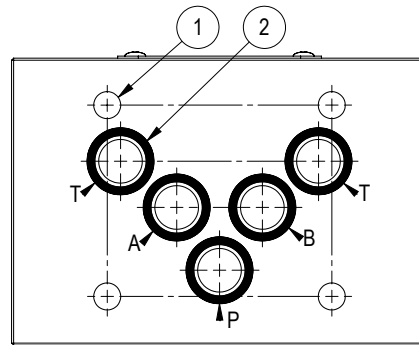
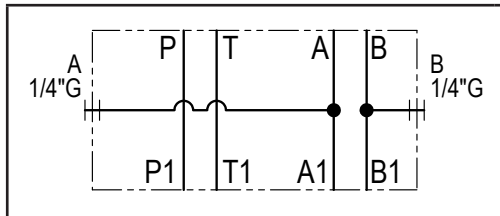
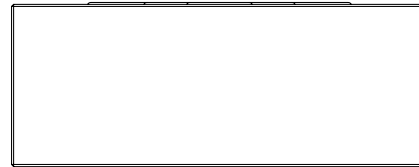
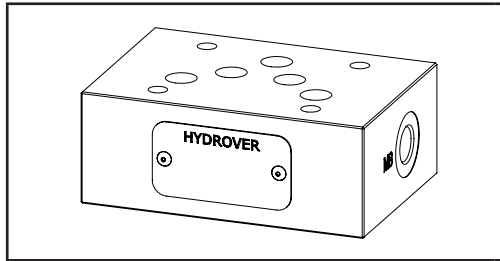
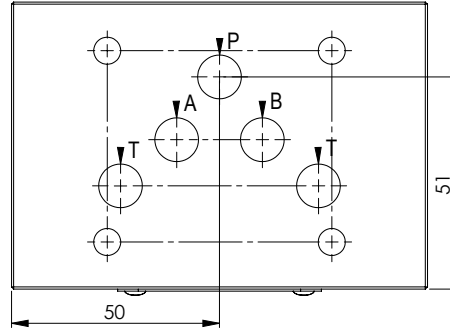
Valve	Cavity	Long plug code
Solenoid valve VEI-16-021-NC OD.15.05.21-Y-000000 / VEI-16-021-NA OD.15.06.21-Y-000000	021-E	R-800-015

Cetop 5 modular manifold with side additional A-B ports 1/4" G **H5923**

Dimensions in mm



Technical data	
Max. pressure	250 bar
Weight	0,7 kg
Manifold material	Aluminium
A / B ports	1/4" G



N°	Description	Q.ty
1	Ø 6,5 through hole for mounting	4
2	OR 2050 i. Ø 12,42 cross section 1,78	5

H5923

H	5	9	2	3	A
---	---	---	---	---	---

Hydrover product

Manifold material
Aluminium

Product series

59 series - Cetop 5 modular valves

Product ID

ELECTRONIC CONTROLS

Introduction

This electronic control it's been developed to drive a solenoid proportional valve without integrated position transducer. The device is enclosed in a "OCTAL" plastic container with 8 pin standard circular connector (the typical circular relays connector).

The output stage operates in PWM high-frequency modulation and produces a sinusoidal dither signal whose value can be varied between 80 and 220Hz to fit most existing valve cursors.

The integrated current feedback allows a fine control versus solenoid temperature variations. The circuit also integrates a short-circuit protection, which is signaled by its overloaded LED (O. LOAD) and protection for supply voltage inversion. The green LED (SUPPLY) signals power supply presence, the two yellow LED (OUT A e OUT B) indicate the driving of the solenoid.

Minimum current (I.MIN), Maximum current (I.MAX), Rise ramp (R.UP) and Fall ramp (R.DW) can be calibrated with the trimmer on frontal panel.

Ramps can be excluded shorting input RAMP CONTROL (8) to supply voltage (the red LED "R.OFF" lights).

You can drive the valve wiring a 5 K Ohm or 10 K Ohm, potentiometer between pin 4 (+5V) and pin 1 (0V) with the tap on pin 3 (ref.) or giving a voltage (or current) reference between pin 3 (Ref.) and 0V pin 1 (-).

Electrical wiring

Wiring the card following the electric diagram and don't apply supply. Turn all the trimmer counterclockwise almost for ten turns, set the external potentiometer tap or the reference to zero. Turn on the card, check if the green led lights up and the yellow led stay off (no driving to the valve(s)). If not as described above, check wiring and if the external pot. tap is really turned to 0V.

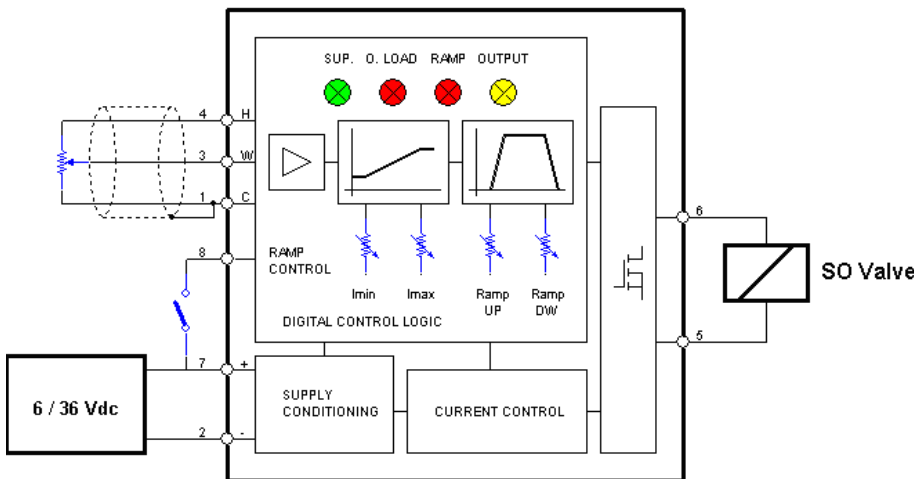


Diagram 1

1. Pot. 0V
2. Supply -
3. Pot. tap
4. Pot. +5V
5. Solenoid -
6. Solenoid +
7. Supply +
8. Ramp control

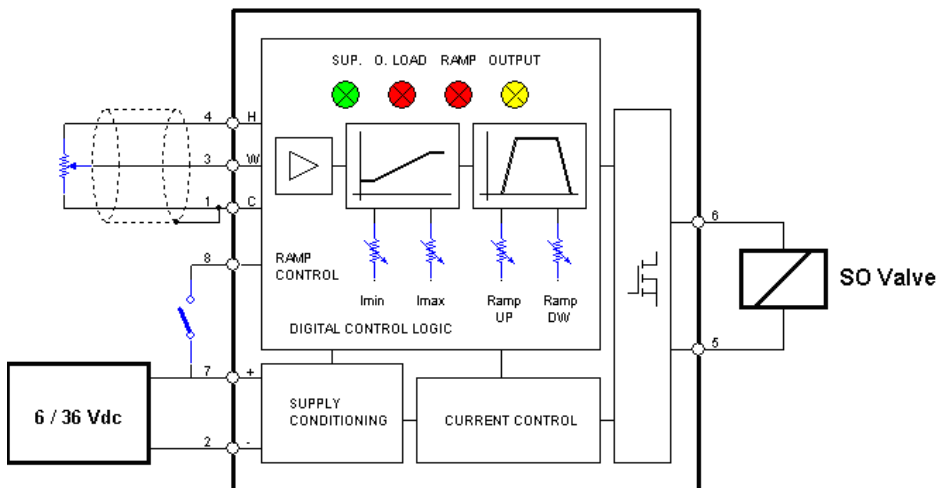


Diagram 2

1. Supply -
2. Supply -
3. Reference (V or I)
4. Pot. tap
5. Solenoid -
6. Solenoid +
7. Supply +
8. Ramp control

Current calibration

Turn the external potentiometer or the external reference to the minimum value that lights up the yellow led (OUT A on) and turn the trimmer I MIN until you obtain the minimum current required to drive the solenoid (see valve datasheet). Turn the external potentiometer or the external reference to its maximum value and then turn the trimmer I MAX until you obtain the maximum current required by the solenoid (see valve datasheet). Current value can be read inserting a voltmeter's tips in the red and black socket on PROPEL panel. You will read 1 VDC = 1Amp.

Ramps setup

If start and stop ramps are needed, disconnect the input on pin 8 (red led RAMP OFF turns off) and utilize the trimmer R.UP, R.DW to fix the rise and fall time needed. If you don't need ramps, simply short pin 8, Ramp Control, to +V (pin 7), the red led RAMP OFF turns on and the ramps will be disabled.

Dip-Switch setup

As you can see in the table below, the dither frequency can be fixed from 80Hz to 220Hz, refer to the solenoid datasheet to know the best dither frequency to use. Dip switch 1-2-3 fixes the various frequency.

1	2	3	Dither
OFF	OFF	OFF	80 Hz
OFF	OFF	ON	100 Hz
OFF	ON	OFF	120 Hz
OFF	ON	ON	140 Hz
ON	OFF	OFF	160 Hz
ON	OFF	ON	180 Hz
ON	ON	OFF	200 Hz
ON	ON	ON	220 Hz

Dip-switch 5 fixes the maximum output current allowable for the valve (OFF->1A, ON->2A)

Dip-switch -6-7-8 setup the input configuration, see the table below for the various possibilities:

6	7	8	Input (Pin 3)
OFF	OFF	OFF	0-5 V, Potenz. (diagram 1)
OFF	OFF	ON	0-10 V (diagram 2)
ON	OFF	OFF	0-20 mA (diagram 2)

Normal operation

Once you have ended the above setup, the system is ready to control the valves. Giving a set point to the input (~500mV when you use the potentiometer) the current flows to the solenoid starting from the minimum current, fixed with the trimmer I MIN, to the maximum current, fixed with the trimmer I MAX, when the set point is at maximum value. Of course the current to the valves will rise or fall with the time imposed by the ramps, if you disabled the ramps, the current will change immediately.

Technical data

Nominal Operating Voltage.....	12 ÷ 28 VDC
Max Operating Voltage	36 VDC
Nominal Power	48W
Nominal current	2,8A (12V) - 1,4A (24V)
Supply to external potentiometer.....	+5V
Minimum current swing (I min.)	0 ÷ 50%
Maximum current swing (I max.)	I Min ÷ 100%
Ramp time swing (R. up. – R. Dw.)	0 ÷ 10 sec.
Working temperature	-20 ÷ +80 °C
Potentiometric input ADC resolution.....	10 bit



Ordering code

H	6	1	0	1
---	---	---	---	---

Hydrover product

Product ID

Product series

61 series - Electronic controls

Introduction

This electronic control it's been developed to drive a double solenoid proportional valve without integrated position transducer. The device is enclosed in a "UNDECAL" plastic container with 11 pin standard circular connector (the typical circular relays connector).

The output stage operates in PWM high-frequency modulation and produces a sinusoidal dither signal whose value can be varied between 80 and 220Hz to fit most existing valve cursors.

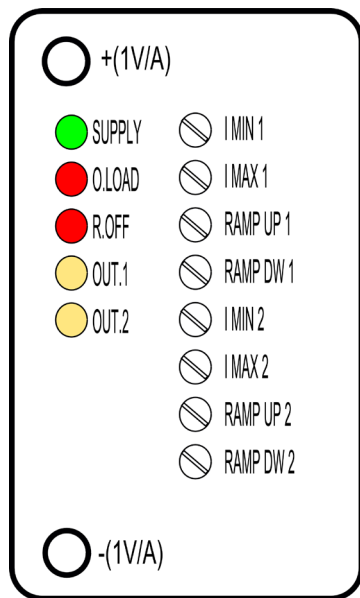
The integrated current feedback allows a fine control versus solenoid temperature variations. The circuit also integrates a short-circuit protection, which is signaled by its overloaded LED (O. LOAD) and protection for supply voltage inversion. The green LED (SUPPLY) signals power supply presence, the two yellow LED (OUT A e OUT B) indicate the driving of the solenoid.

Minimum current (I.MIN), maximum current (I.MAX), rise ramp (R.UP) and fall ramp (R.DW) can be calibrated with the trimmer on frontal panel.

Ramps can be excluded shorting input RAMP CONTROL (3) to supply voltage (the red LED "R.OFF" lights).

You can drive the valve(s) wiring a 5 K Ohm or 10 K Ohm, potentiometer between pin 10 (+5V) and pin 8 (0V) with the tap on pin 9 (ref.) or giving a reference set point between pin 9 (Ref.1) or pin 2 (Ref.2) and 0V pin 2 (-).

Control panel



Control	Description
SUPPLY	Supply present
O.LOAD	Overload protection
R.OFF	Rise/fall ramp OFF
OUT.1	Output-solenoid 1 ON
OUT.2	Output-solenoid 2 ON
I MIN 1	OUT1 minimum current calibration
I MAX 1	OUT1 maximum current calibration
RAMP UP 1	OUT1 Rise ramp calibration
RAMP DW 1	OUT1 Fall ramp calibration
I MIN 2	OUT2 minimum current calibration
I MAX 2	OUT2 maximum current calibration
RAMP UP 2	OUT2 Rise ramp calibration
RAMP DW 2	OUT2 Fall ramp calibration
+ (1V/A)	Voltmeter sockets for current measurement (1Volt = 1Ampere)
- (1V/A)	

Electric wiring

Wiring the card following the electric diagram and don't apply supply. Turn all the trimmer counterclockwise almost for ten turns, set the external potentiometer tap or the set point to midway (remember that you are using a double valve system). Turn on the card, check if the green led lights up and the yellow led stay off (no driving to the valve(s)). If not as described above, check wiring and if the external pot. tap is really turned to midway.

Electrical connection for potentiometer control

PIN	Description
1	Supply (-)
2	Output selector (0V -> OUT1, +V -> OUT2)
3	Ramp control (0V -> Ramp ON, +V Ramp OFF)
4	Shield
5	Solenoid common (-)
6	Solenoid 1 (+)
7	Solenoid 2 (+)
8	Potentiometer 0V
9	Potentiometer tap
10	Potentiometer +5V
11	Supply (+)

Electrical connection for reference signal control

PIN	Description
1	Supply (-)
2	Output selector (0V -> OUT1, +V -> OUT2) *note1
3	Ramp control (0V -> Ramp ON, +V Ramp OFF)
4	Shield
5	Solenoid common (-)
6	Solenoid 1 (+)
7	Solenoid 2 (+)
8	No connection
9	External reference
10	No connection
11	Supply (+)

*Note1: in case of +5V/-5V input control signal, pin 2 works as output enable, in all other case pin 2 works as output selector.

Current calibration

Turn the external potentiometer or the external reference set point to the minimum value that lights up the yellow LED (OUT1 ON) and turn the trimmer I MIN until you obtain the minimum current required to drive the solenoid and open valve cursor(see valve datasheet).

Turn the external potentiometer or the external reference set point to its maximum value and then turn the trimmer I MAX until you obtain the maximum current required by the solenoid (see valve datasheet). Current value can be read inserting a voltmeter's tips in the red and black socket on PROPEL panel. You will read 1 VDC = 1Amp.

Repeat the above operations for OUT 2 selecting Pin 2 ON (+V)

Ramps setup

If start and stop ramps are needed, disconnect the input pin 3 (red LED R.OFF turns off) and utilize the trimmer R.UP (1 and 2), R.DW (1 and 2) to fix the rise and fall time needed.

If you don't need ramps, simply short pin 3, Ramp Control, to +V (pin 11), the red led R. OFF turns on and the ramps will be disabled.

Dip-Switch setup

As you can see in the table below, the dither frequency can be fixed from 80Hz to 220Hz. Dip switch 1-2-3 fixes the various frequency.

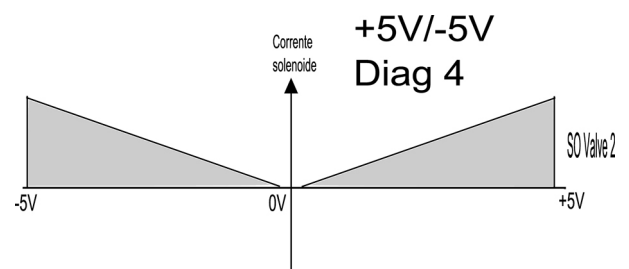
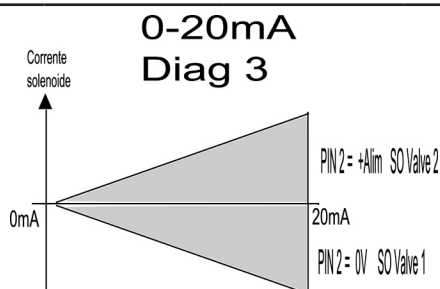
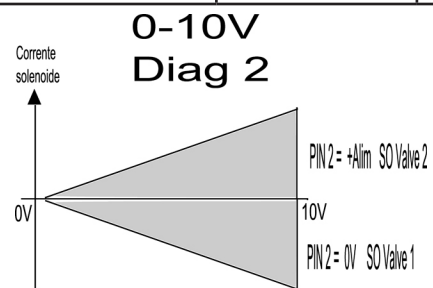
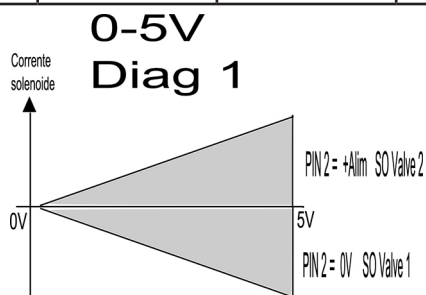
1	2	3	Freq dither
OFF	OFF	OFF	80Hz
ON	OFF	OFF	90Hz
OFF	ON	OFF	100Hz
ON	ON	OFF	110Hz
OFF	OFF	ON	120HZ
ON	OFF	ON	140Hz
OFF	ON	ON	160Hz
ON	ON	ON	180Hz

Dip-switch 4 fixes the the dither level percentage.

DIP4	% dither
OFF	MAX
ON	MIN

Dip-switch 6-7-8-12 setup the reference input type and the functionality of the input PIN 2.

DIP6	DIP7	DIP8	DIP12	Reference input	PIN 2	See image
OFF	OFF	OFF	OFF	0-5V or potentiometer	OUT selector	DIAG 1
OFF	OFF	ON	OFF	0-10V	OUT selector	DIAG 2
ON	OFF	OFF	OFF	0-20mA	OUT selector	DIAG 3
OFF	ON	OFF	ON	+5V 0 -5V	OUT enable	DIAG 4

**Working**

Once you have ended the above setup, the system is ready to control the valves.

Giving a set point to the input (~200mV when you use the potentiometer) the current flows to the solenoid starting from the minimum current, fixed with the trimmer I MIN, to the maximum current, fixed with the trimmer I MAX, when the set point is at maximum value.

Of course the current to the valves will rise or fall with the time imposed by the ramps, if you disabled the ramps, the current will change immediately.

Technical data	
Operating Voltage.....	12 ÷ 28 VDC
Max Operating Voltage.....	36 VDC
Nominal Power.....	48W
Nominal current.....	2,8A (12V) - 1,4A (24V)
Supply to external potentiometer.....	+5V
Minimum current swing (I min.).....	0 ÷ 50%
Maximum current swing (I max.).....	I Min ÷ 100%
Ramp time swing (R. up. – R. Dw.).....	0 ÷ 10 sec.
Working temperature.....	-20 ÷ +80 °C
Potentiometric input ADC resolution.....	10 bit

Ordering code

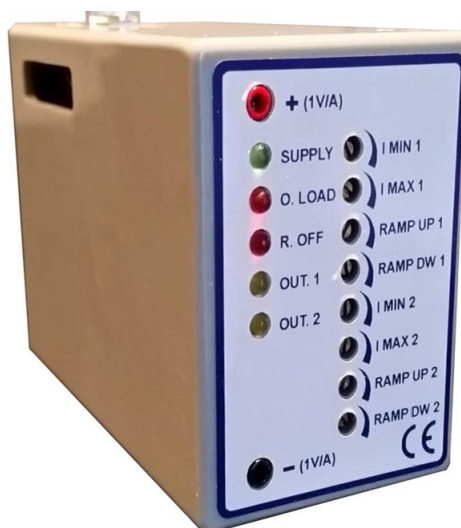
H	6	1	0	2
---	---	---	---	---

Hydrover product

Product ID

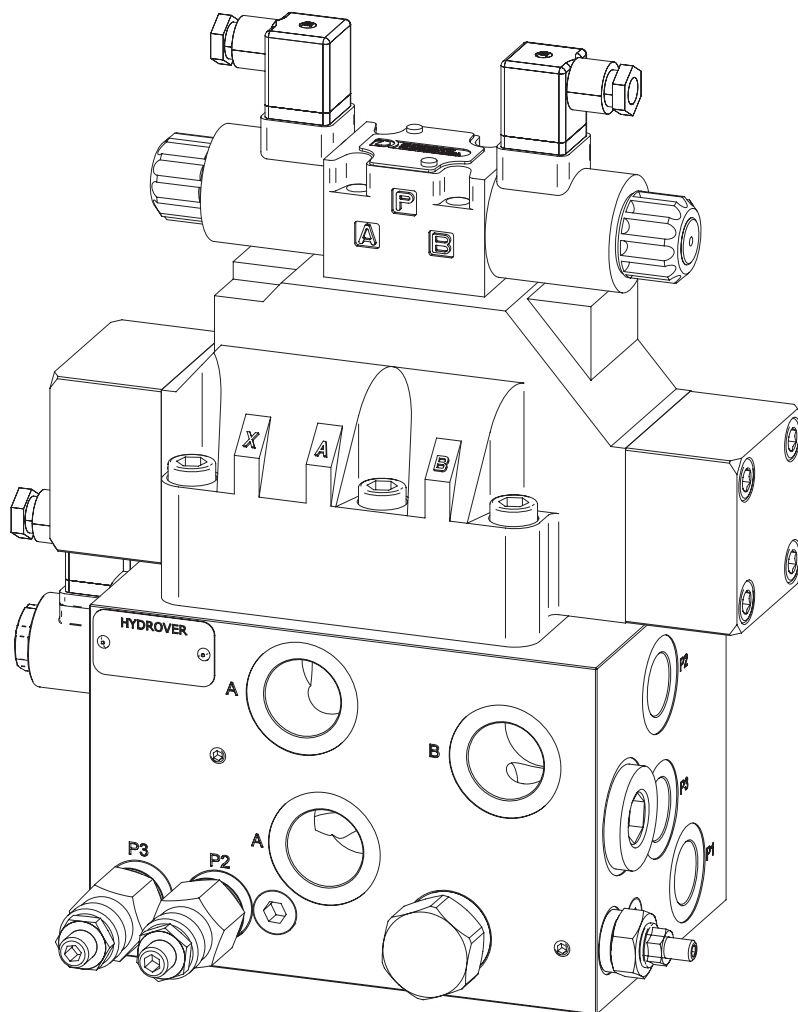
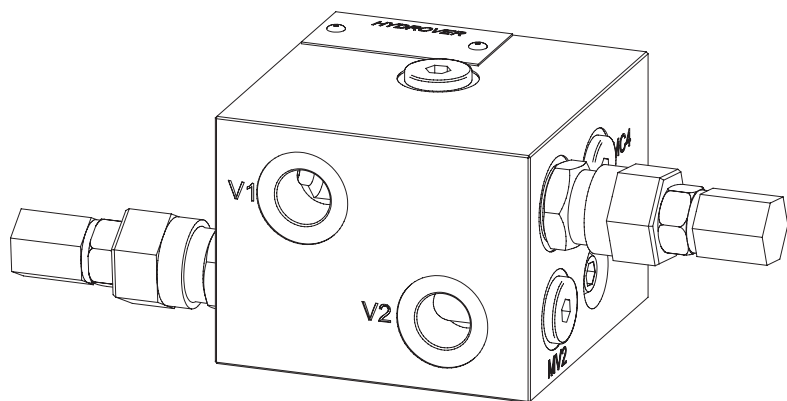
Product series

61 series - Electronic controls



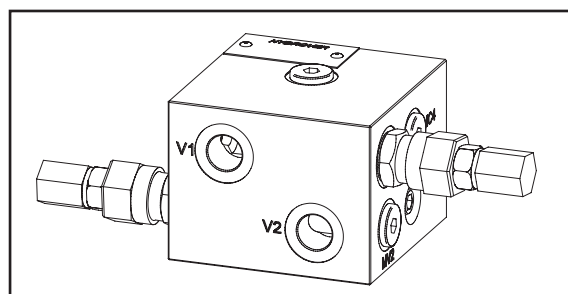
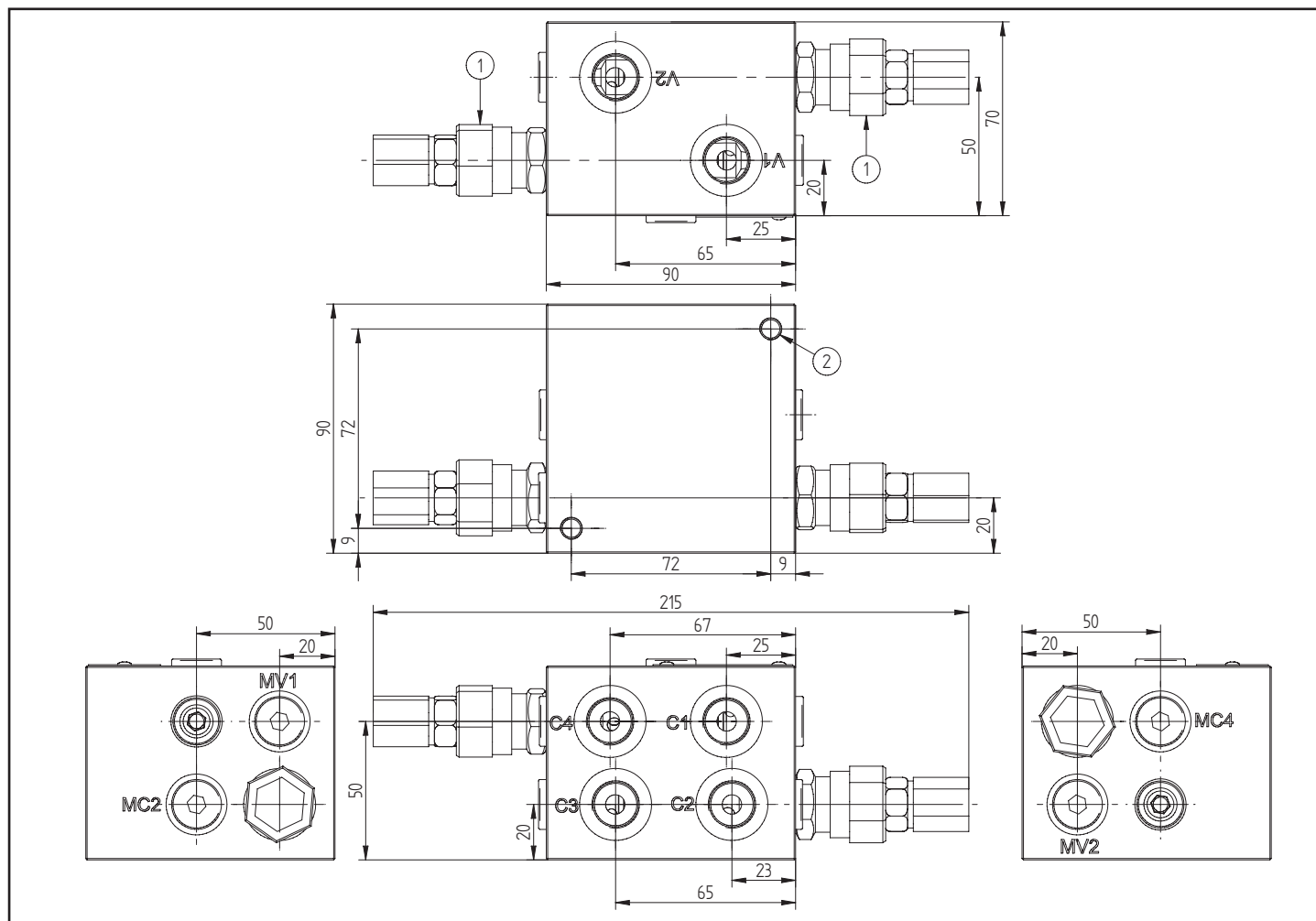
97 SERIES

Multifunctional integrated circuits

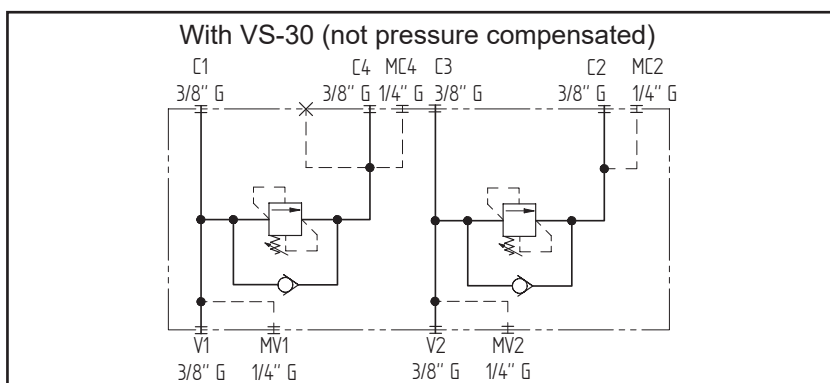
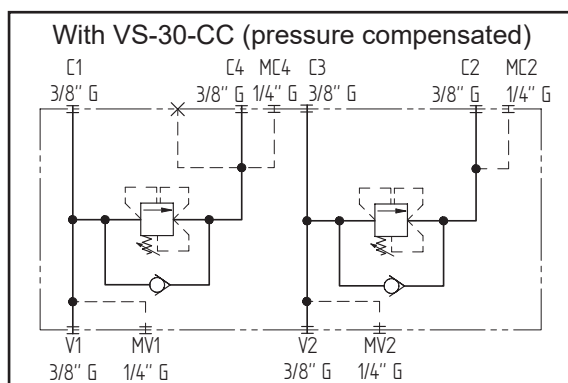


Integrated circuit with two sequence circuits 3/8" G **H97001**

Dimensions in mm



Technical data	
Max. pressure	250 bar
Max. flow per circuit	30 lpm *
Weight	2 Kg
Manifold material	Aluminium
MV1 / MV2 / MC2 / MC4 ports	1/4" G
V1 / V2 / C1 / C2 / C3 / C4 ports	3/8" G



N°	Description	Q.ty
1	Bosch Rexroth sequence valve VS-30-CC * (as depicted) or Bosch Rexroth relief valve VS-30 *	2
2	M8x15 thread for mounting	2

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue

Ordering code

H	9	7	0	0	1	A	-	-	-	-	-	-
---	---	---	---	---	---	---	---	---	---	---	---	---

Hydrover product

Product series

97 series - Multifunctional integrated circuits

Product ID

Manifold material

Aluminium

Adjustment type for valve on V1*

Screw = S
Knob (only for VS-30) = K

Pressure range adjustment for valve on V1 *

5-50 bar = 0
30-100 bar = 1
50-210 bar = 2
100-350 bar = 3

V2 valve type *

S = VS-30-CC
M = VS-30

Pressure range adjustment for valve on V2 *

0 = 5-50 bar
1 = 30-100 bar
2 = 50-210 bar
3 = 100-350 bar

Adjustment type for valve on V2*

S = Screw
K = Knob (only for VS-30)

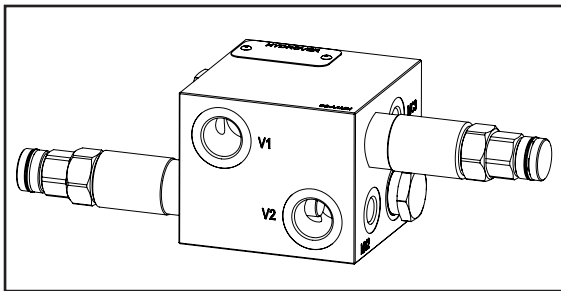
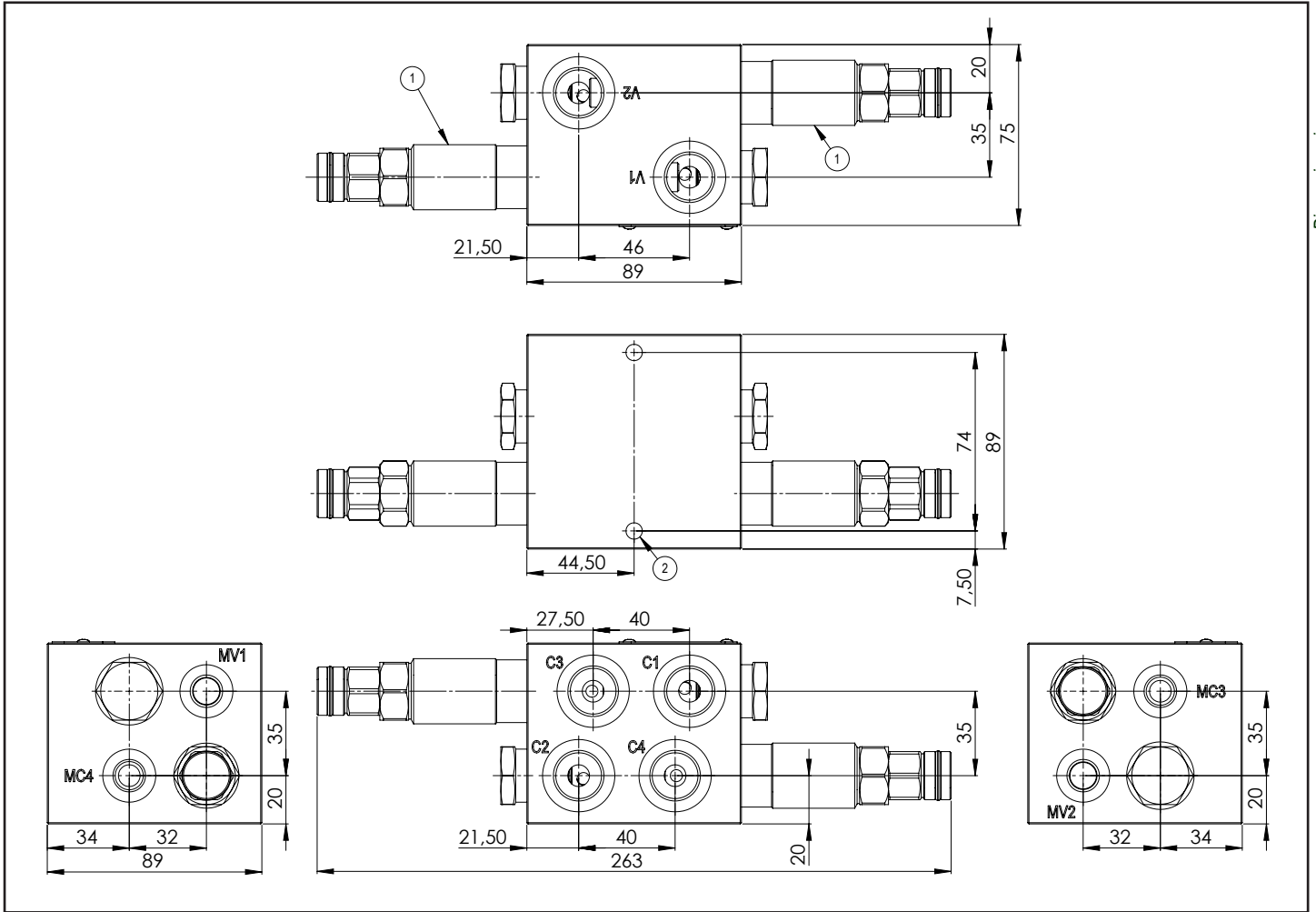
V1 valve type *

S = VS-30-CC
M = VS-30

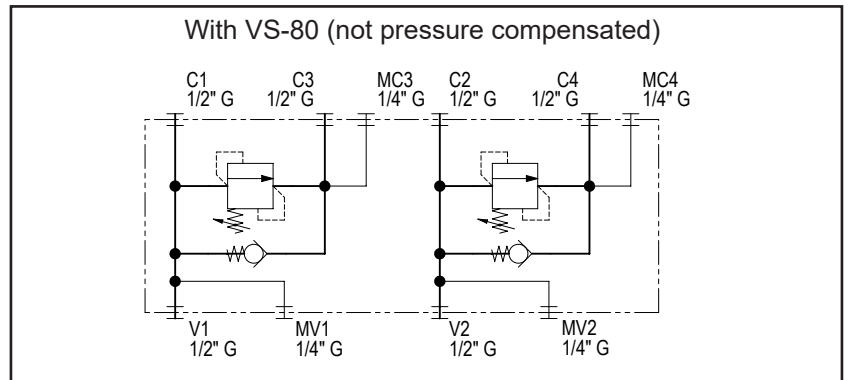
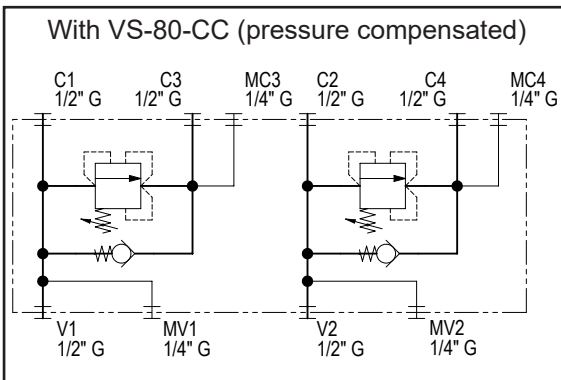
* Omit if not required. To order the product without valves, omit their options: H97001A.
The manifold will still be provided with the corresponding cavities.

Integrated circuit with two sequence circuits 1/2" G **H97063**

Dimensions in mm



Technical data	
Max. pressure	250 bar
Max. flow per circuit	80 lpm *
Weight	3 Kg
Manifold material	Aluminium
MV1 / MV2 / MC2 / MC4 ports	1/4" G
V1 / V2 / C1 / C2 / C3 / C4 ports	1/2" G



N°	Description	Q.ty
1	Sequence valve VS-80-CC * (as depicted) or Bosch Rexroth relief valve VS-80 *	2
2	M8x15 thread for mounting	2

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue

Ordering code

H 9 7 0 6 3 A - - - - -

Hydrover product

Product series

97 series - Multifunctional integrated circuits

Product ID

Manifold material

Aluminium

Adjustment type for valve on V1*

Screw = S
Knob (only for VS-80) = K

Pressure range adjustment for valve on V1 *

VS-80-CC
5-50 bar = 0
25-100 bar = 1
60-210 bar = 2
100-350 bar = 3
VS-80
5-50 bar = 0
30-100 bar = 1
80-250 bar = 2
140-350 bar = 3

V2 valve type *

S = VS-80-CC
M = VS-80

Pressure range adjustment for valve on V2 *

VS-80-CC
0 = 5-50 bar
1 = 25-100 bar
2 = 60-210 bar
3 = 100-350 bar
VS-80
0 = 5-50 bar
1 = 30-100 bar
2 = 80-250 bar
3 = 140-350 bar

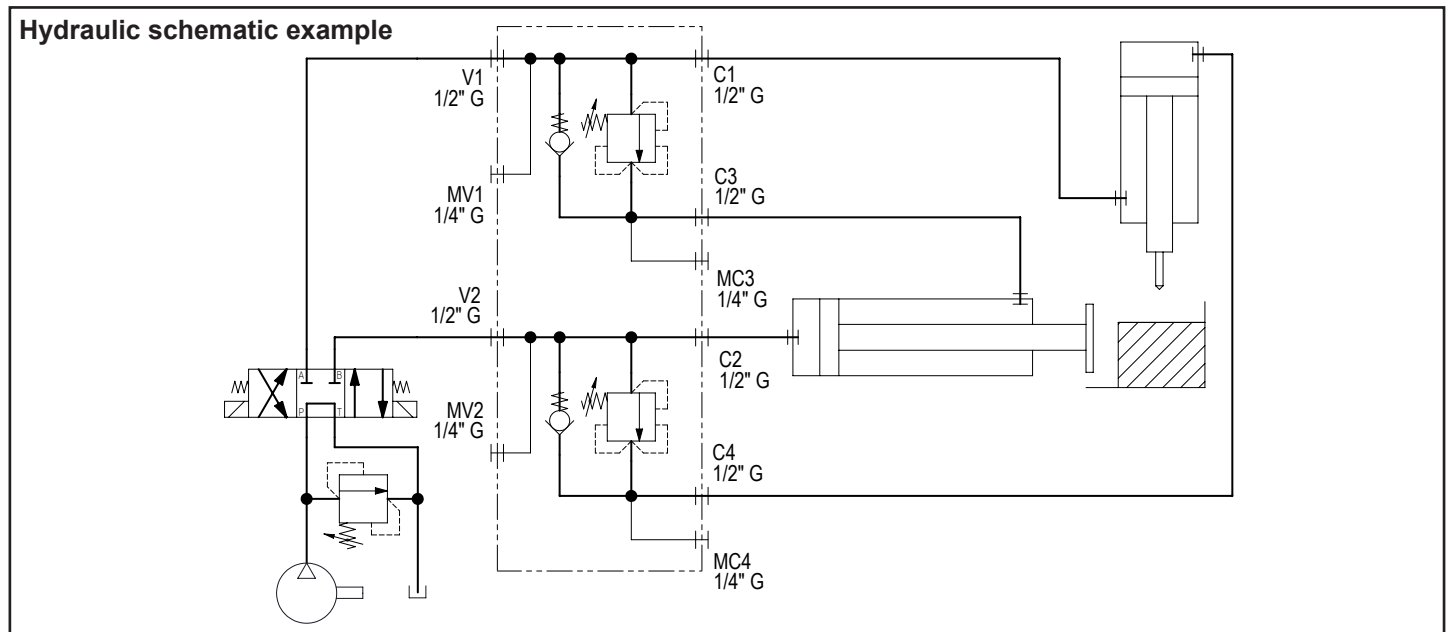
Adjustment type for valve on V2*

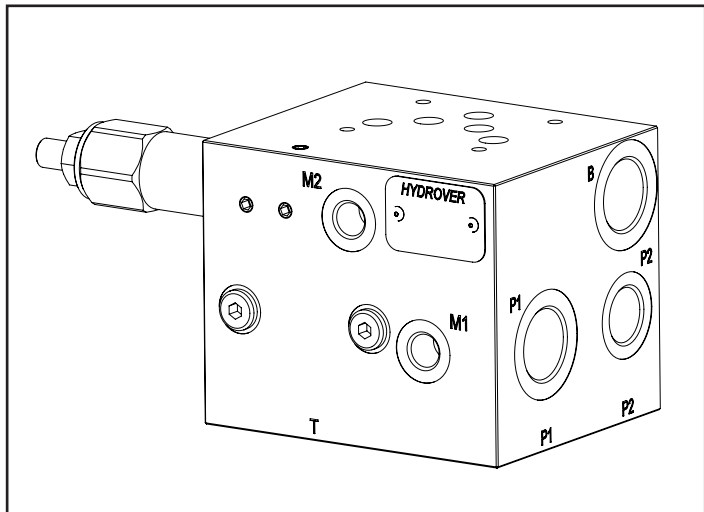
S = Screw
K = Knob (only for VS-80)

V1 valve type *

S = VS-80-CC
M = VS-80

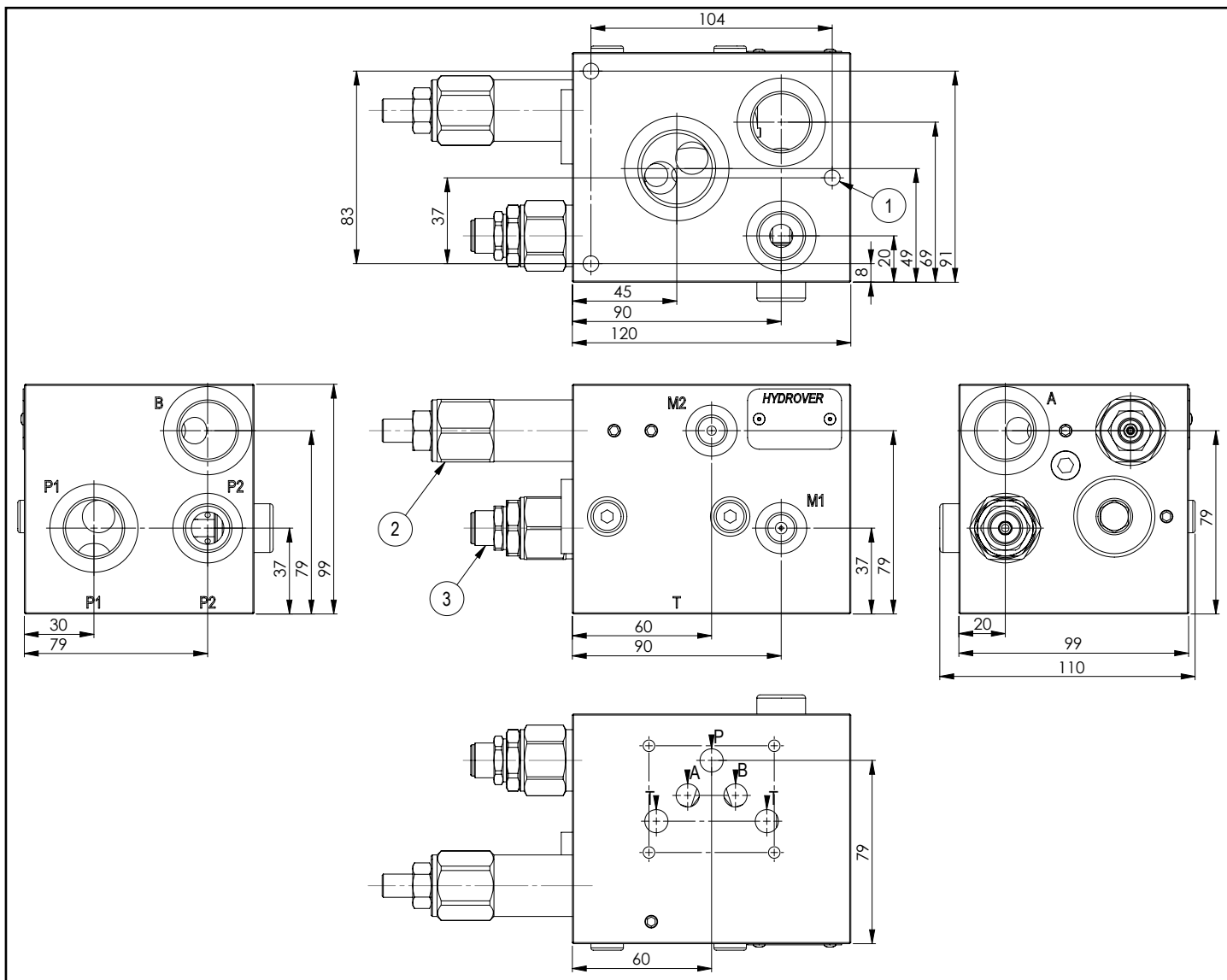
* Omit if not required. To order the product without valves, omit their options: H97063A.
The manifold will still be provided with the corresponding cavities.





Technical data	
Max. pressure	350 bar
P1 max. flow	80 lpm *
P2 max. flow	40 lpm *
Weight	8,3 Kg
Manifold material	Steel
M1 / M2 ports	1/4" G
P2/ P2 ports	1/2" G
P1/ P1 / A / B ports	3/4" G
T port	1" G
* The sum of the two pumps must not exceed 100 lpm.	

Dimensions in mm



N°	Description	Q.ty
1	M8x12 for mounting	3
2	Cutoff valve 20-180 bar	1
3	Bosch Rexroth relief valve VMD1.040 *	2

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue

Ordering code

H	9	7	0	3	9	S	-	-	-
---	---	---	---	---	---	---	---	---	---

Hydrover product

Product series

97 series - Multifunctional integrated circuits

Product ID

Manifold material

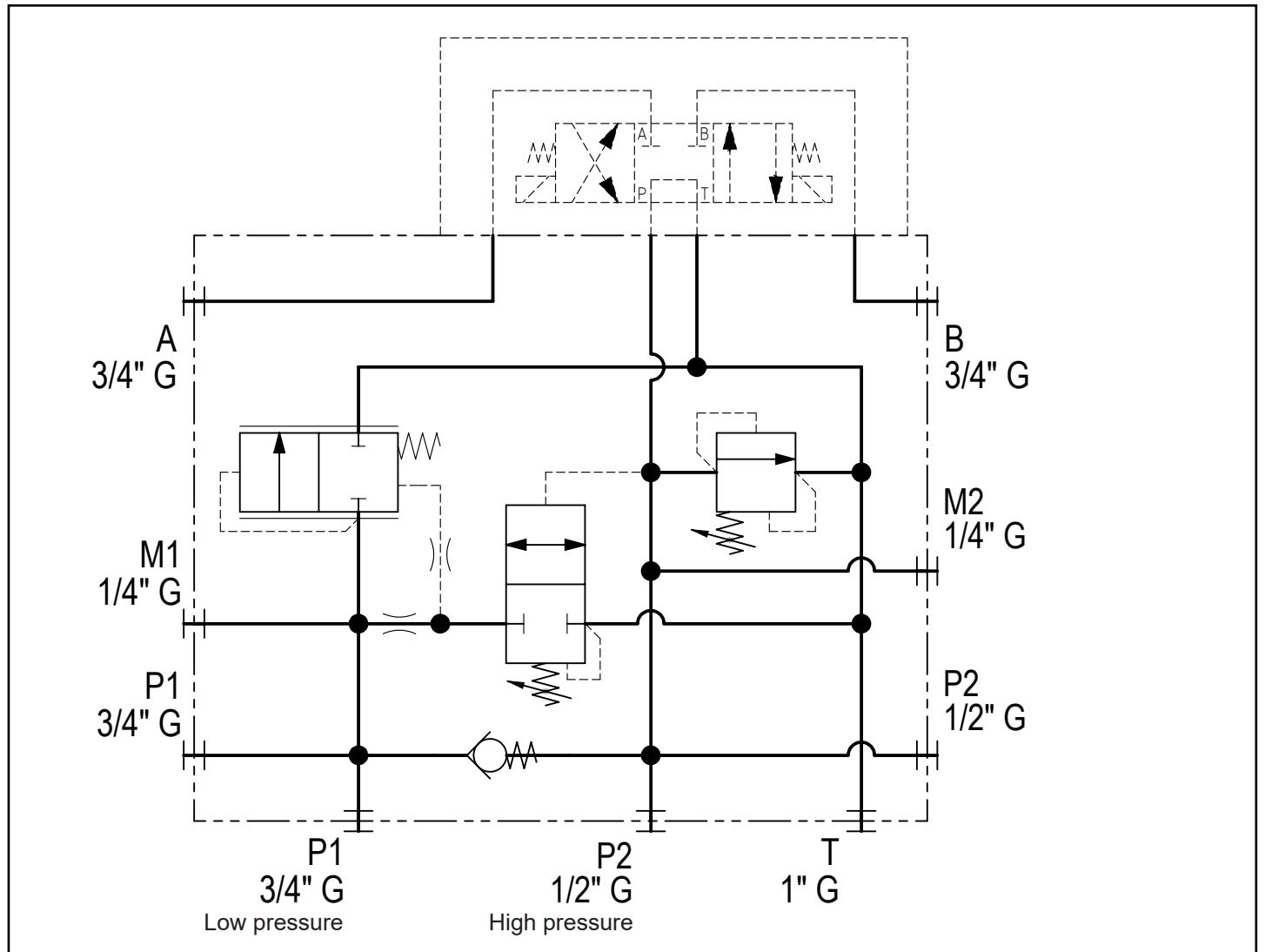
Steel

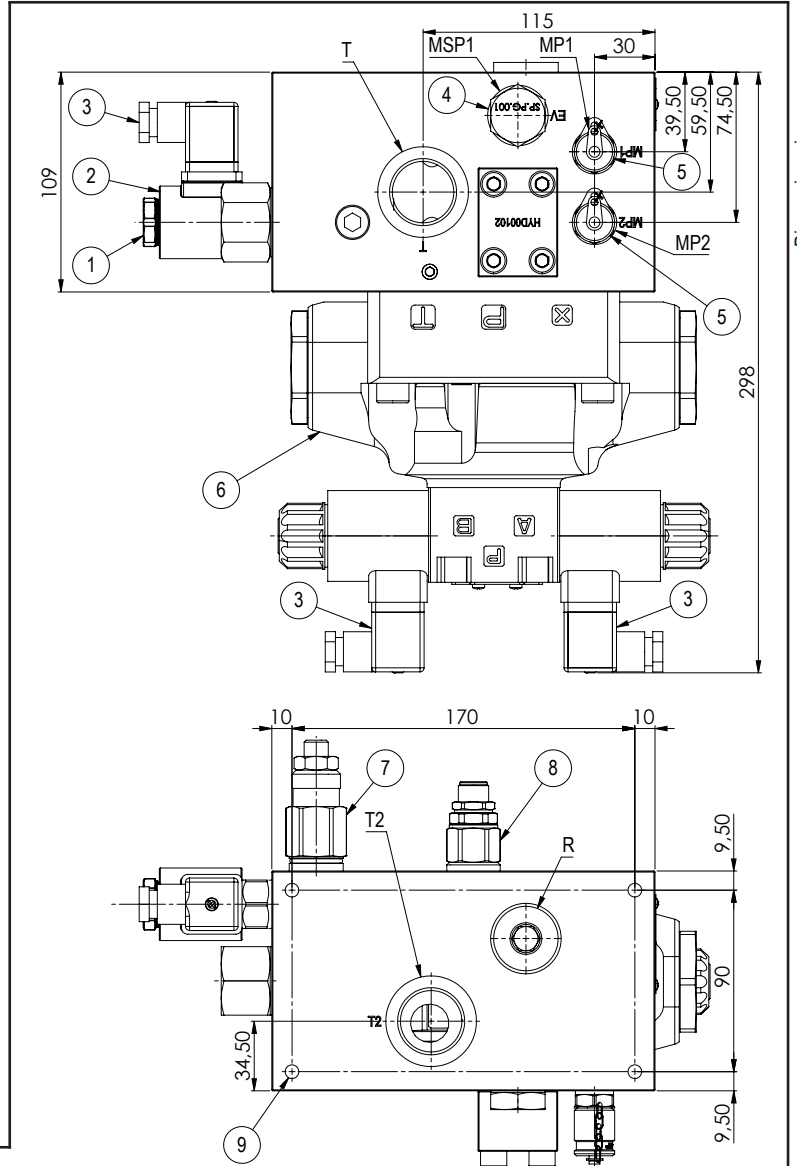
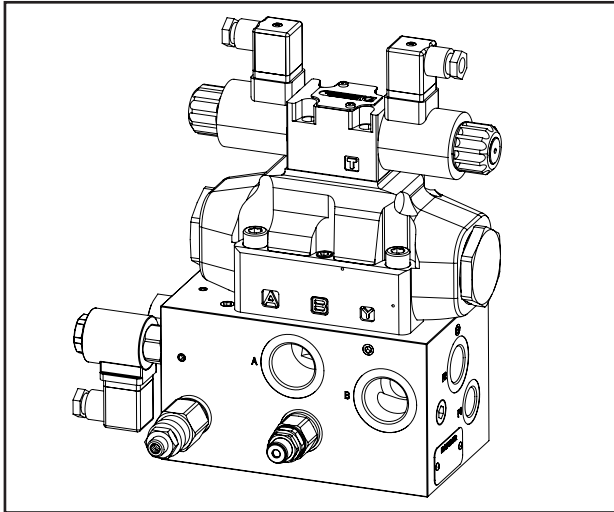
Relief valve adjustment pressure range

- 1 = 25-120 bar
- 2 = 40-200 bar
- 3 = 200-350 bar

Relief valve adjustment type

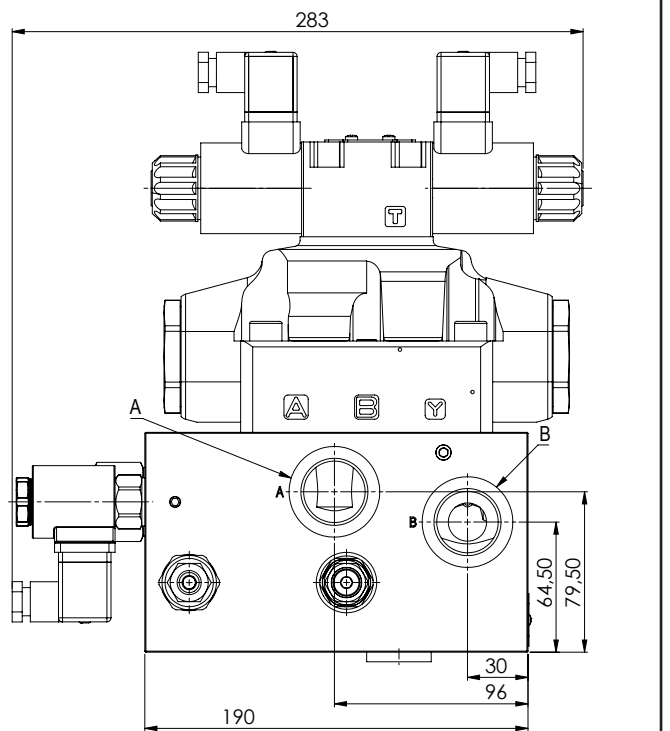
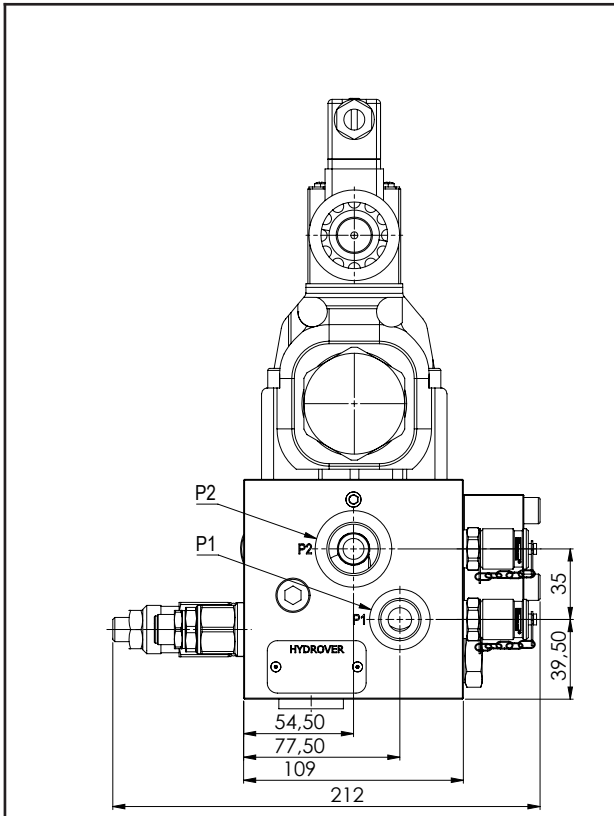
S = Screw

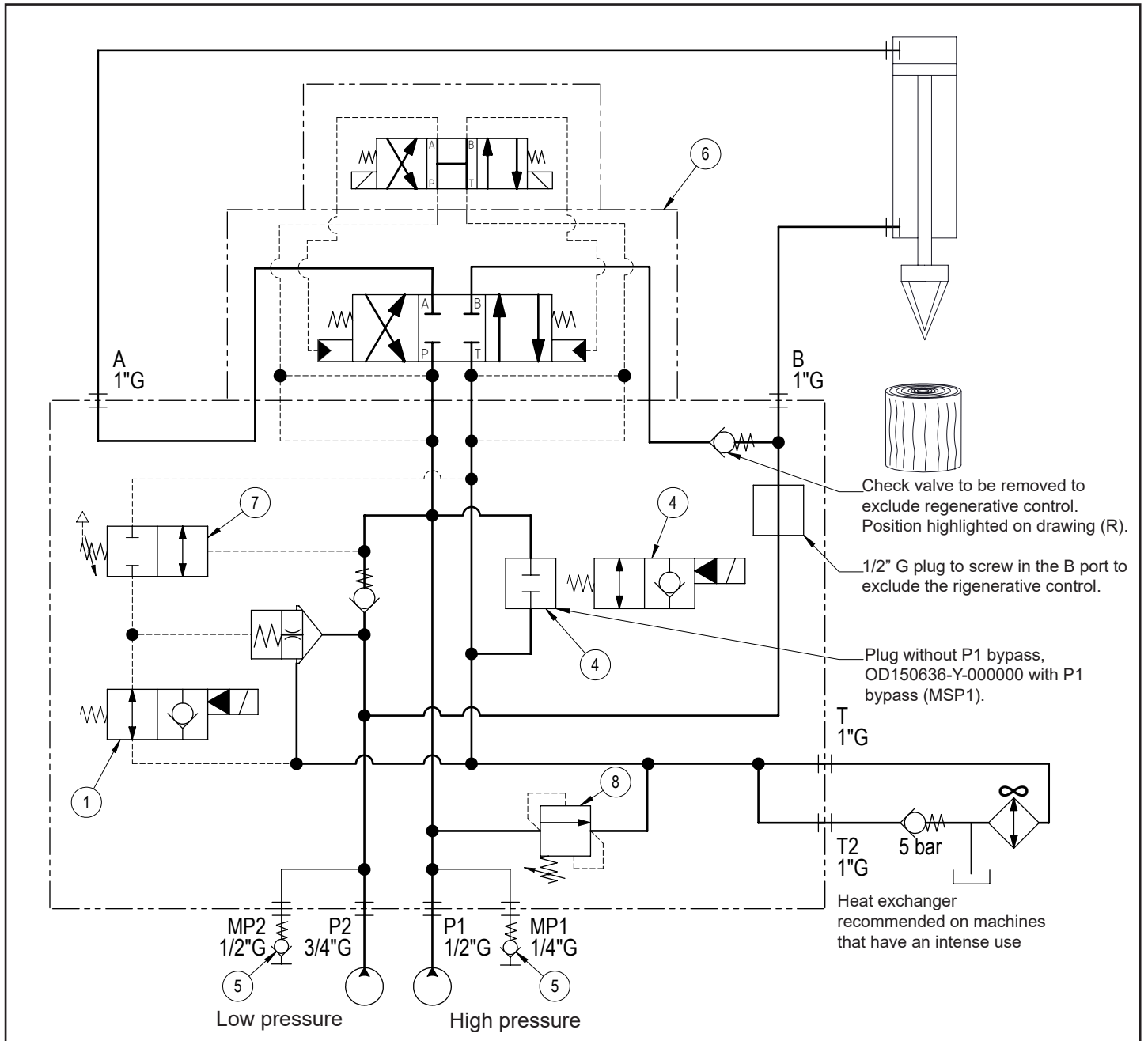




Dimensions in mm

Technical data	
Max. pressure	350 bar
P1 max. flow	25 lpm without MSP1 60 lpm with MSP1 *
P2 max. flow	100 lpm **
Weight	26 Kg
Manifold material	Steel
MP1 / MP2 ports	1/4" G
P1 port	1/2" G
P2 port	3/4" G
A / B / T1 / T2 ports	1" G
* Depending of the system power	
** Depending of the cylinder dimensions and the system power	





Ordering code



Hydrover product

Product series
97 series - Multifunctional integrated circuits

Product ID

Manifold material
Steel

Rigenerative control
Switchable = E
No = 0

P2 unloading valve adjustment type
Screw = S

P2 unloading valve adjustment pressure range
14-70 bar = 2
70-210 bar = 4

Solenoid valves coil connection
1 = DIN 43650
ISO 4400

Solenoid valves coil voltage *
OB = 12V DC
OC = 24V DC
OU = 110V RAC
AH = 230V RAC

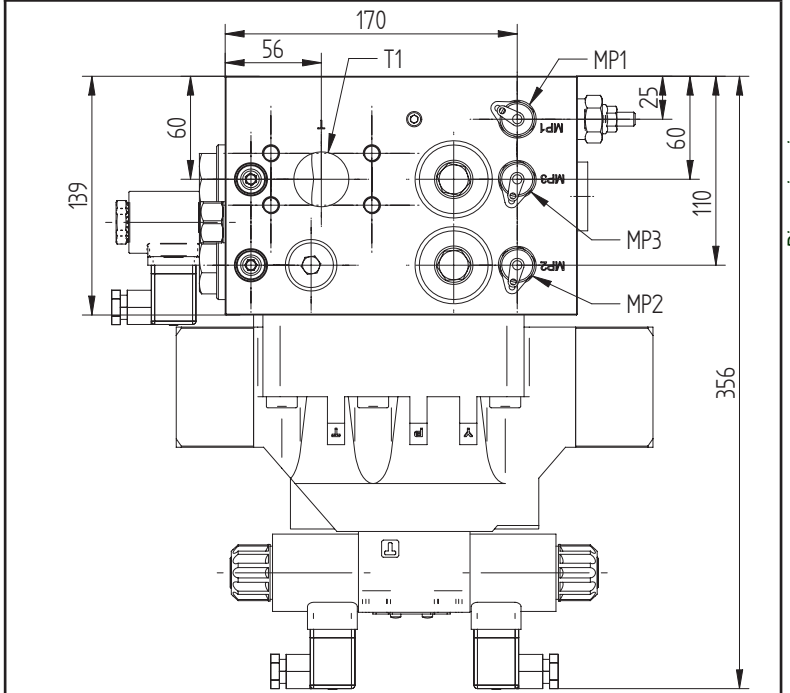
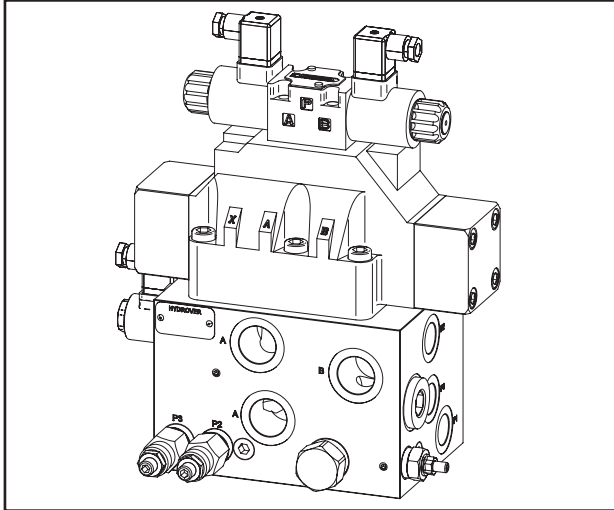
Manual override unloading solenoid valve on P2
E0 = Without
EP = Push
EG = Push and twist

Unloading solenoid valve on P1 / manuale override
TL = Without valve (with plug)
E0 = With valve without override
EP = With valve with push override
EG = With valve with push and twist override

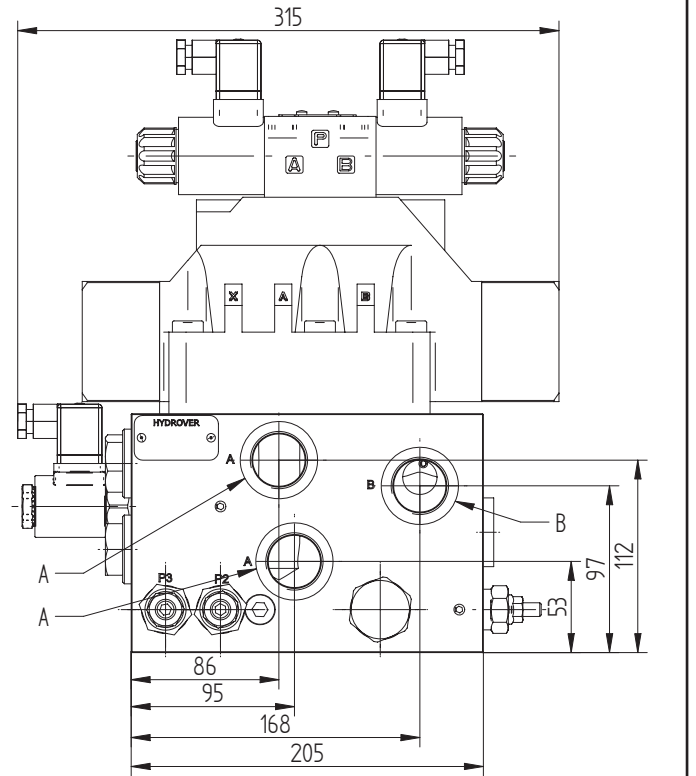
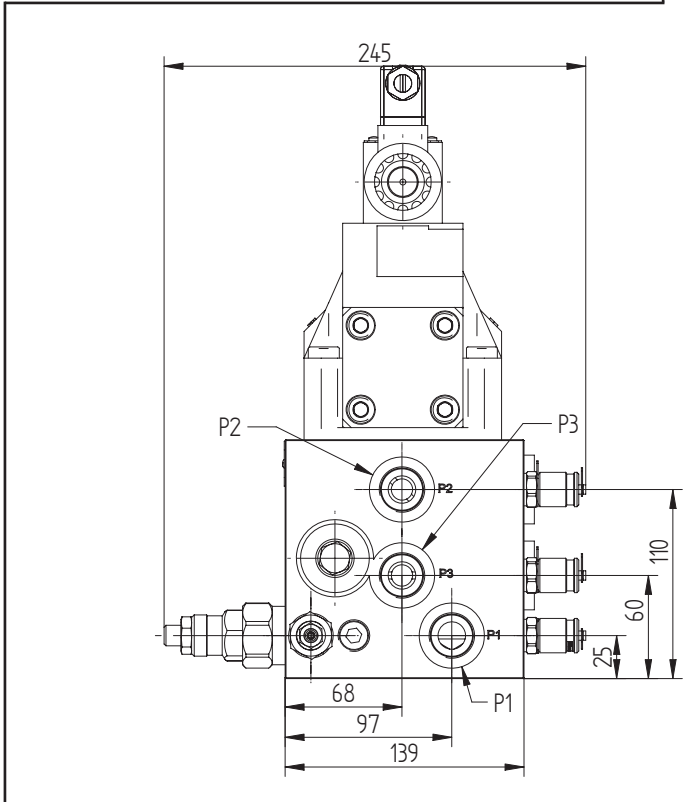
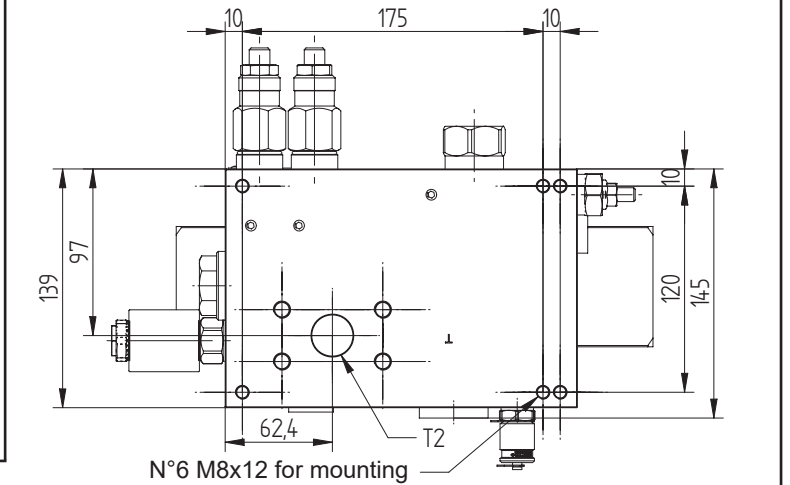
Dimensions in mm

N°	Description	Q.ty
1	Bosch Rexroth solenoid valve VEI-16 OD.15.06.18-Y-000000 depicted without manual override *	1
2	Bosch Rexroth coil D36 - CLASS H DIN 43650 ISO 4400 *	1
3	Connector DIN 43650 ISO 4400	3
4	SP.PG.001 (depicted) o Bosch Rexroth unloading solenoid valve on P1 VEI-16-10A-NA OD.15.06.36-Y-000000 * with Bosch Rexroth D36 coil - CLASS H DIN 43650 ISO 4400 *	1
5	1/4"G test coupling	2
6	Pilot operated distributor	1
7	P2 unloading valve	1
8	Relief valve HCMM03-S3 50-350 bar	1
9	M10x15 for mounting	4

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue

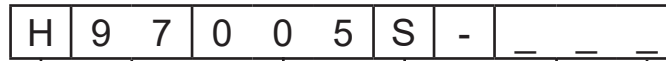


Technical data	
Max. pressure	280 bar
P1 max. flow	50 lpm *
P2 max. flow	100 lpm **
P3 max. flow	150 lpm **
Weight	43,9 Kg
Manifold material	Steel
MP1 / MP2 / MP3 ports	1/4" G
P1 / P2 / P3 ports	3/4" G
A / B ports	1" G
T1 / T2 ports	SAE 3000 1 1/4 flange
* Depending of the system power	
** Depending of the cylinder dimensions and the system power	



Dimensions in mm

Ordering code



Hydrover product

Product series

97 series - Multifunctional integrated circuits

Product ID

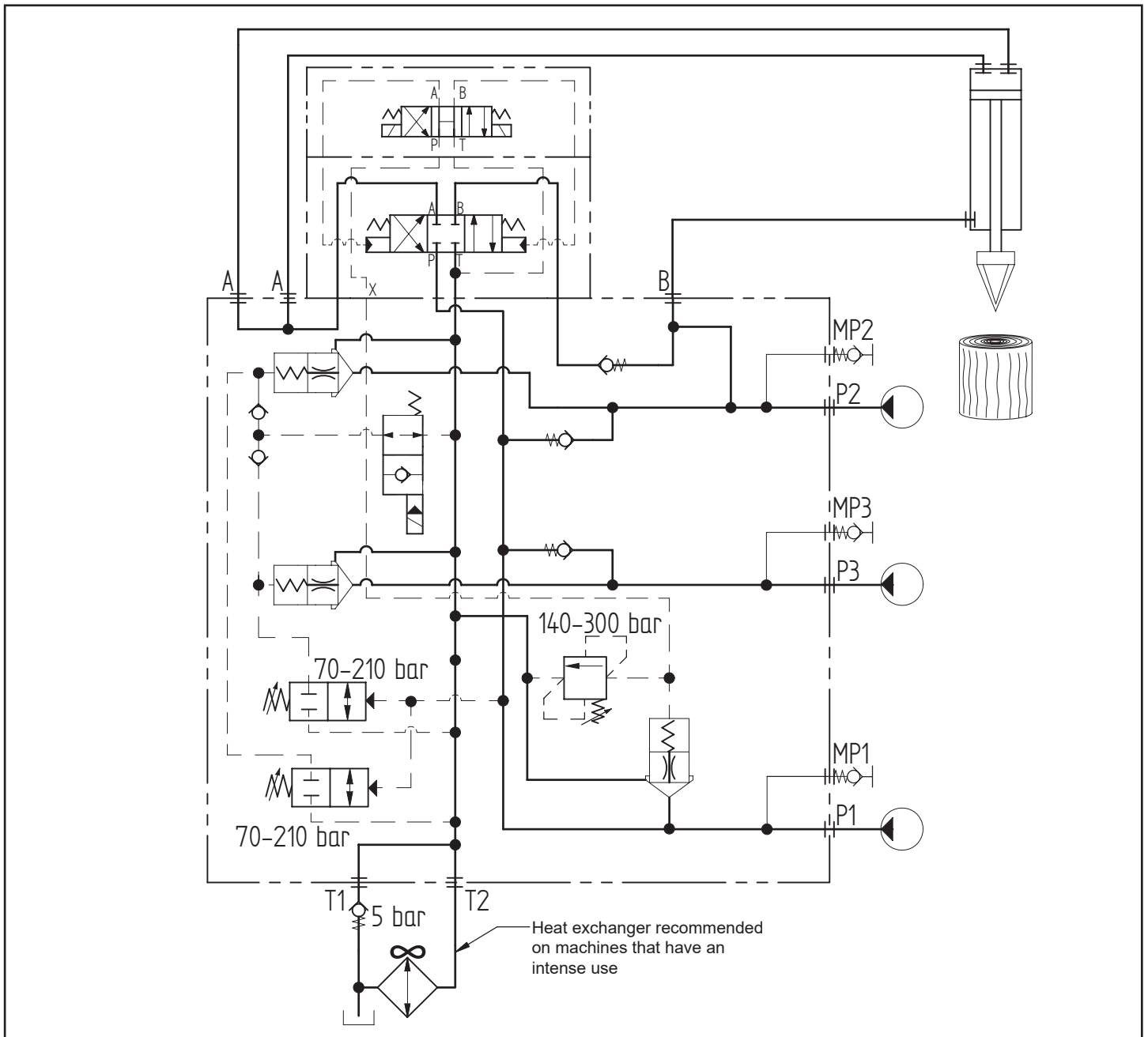
Manifold material

Steel

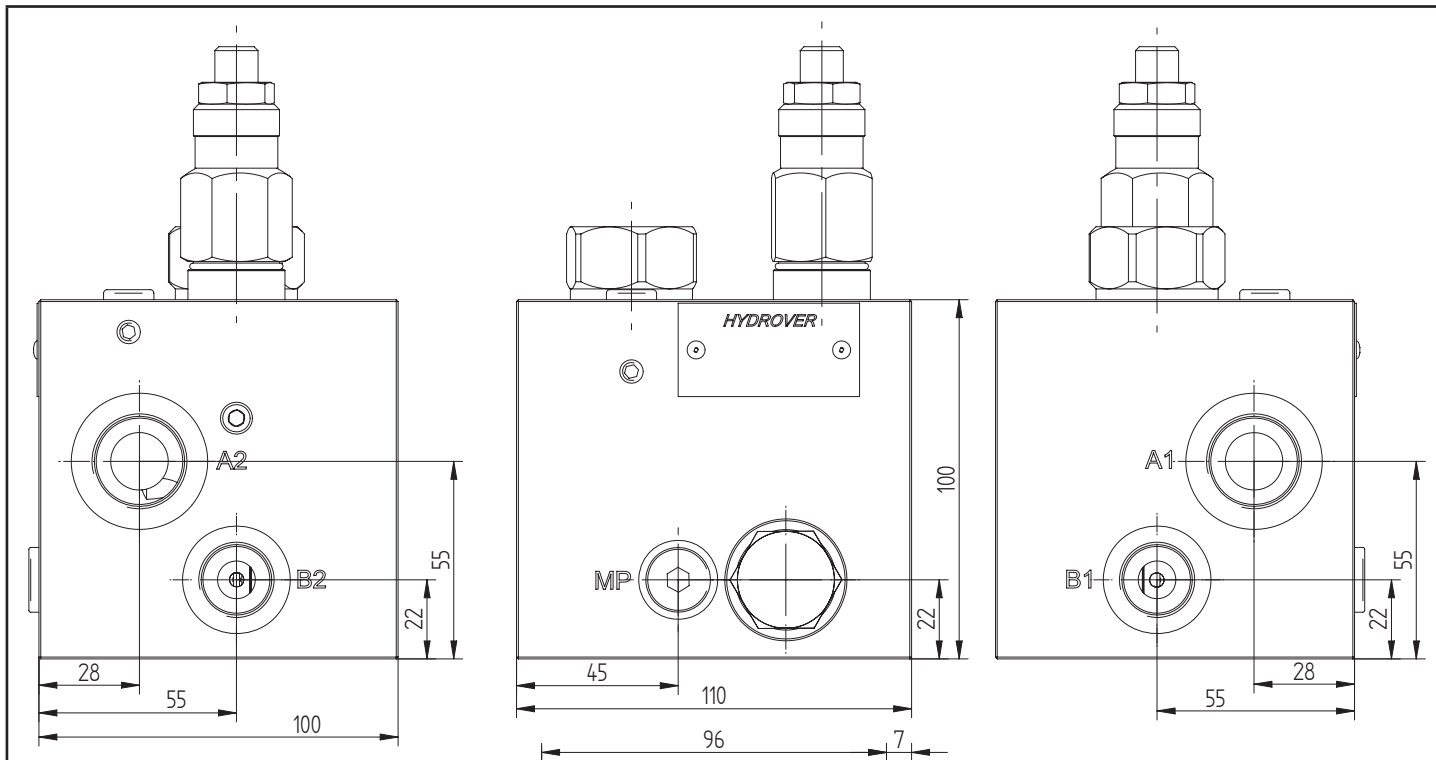
Solenoid valves coil connection
1 = DIN 43650 ISO 4400

Solenoid valves coil voltage *

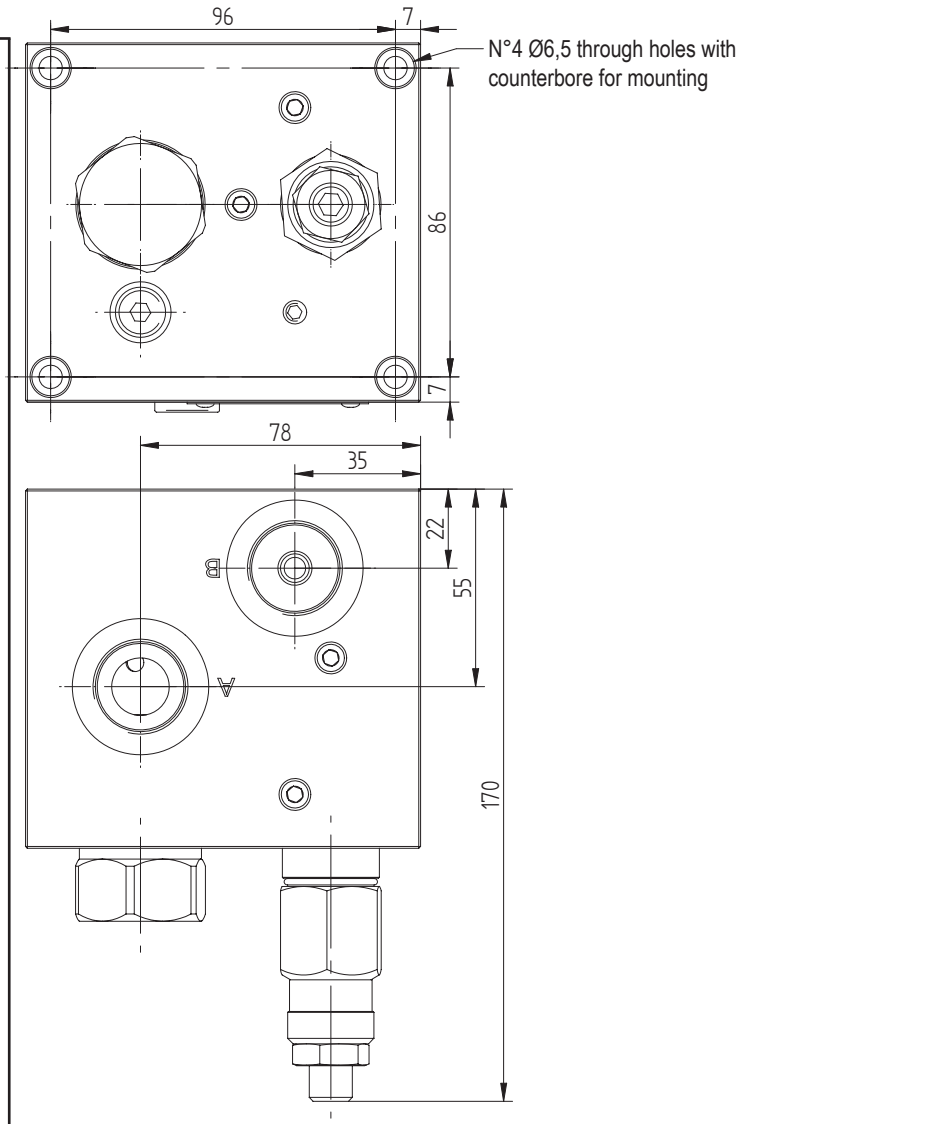
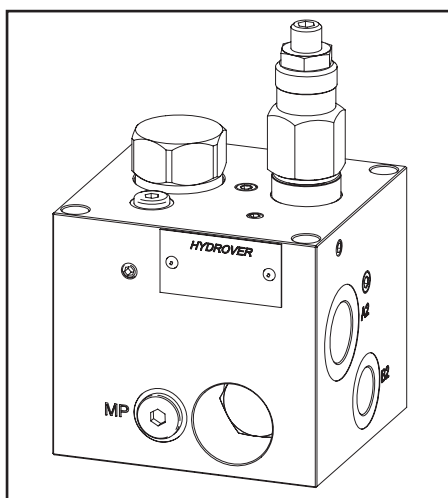
OB =	12V DC
OC =	24V DC
OU =	110V RAC
AH =	230V RAC



Dimensions in mm



Technical data	
Max. pressure	250 bar
Inlet max. flow	40 lpm
Weight	3,2 Kg
Manifold material	Aluminium
MP port	1/4" G
B1 / B2 ports	1/2" G
A / B / A1 / A2 ports	3/4" G



Ordering code

H	9	7	0	0	7	A
---	---	---	---	---	---	---

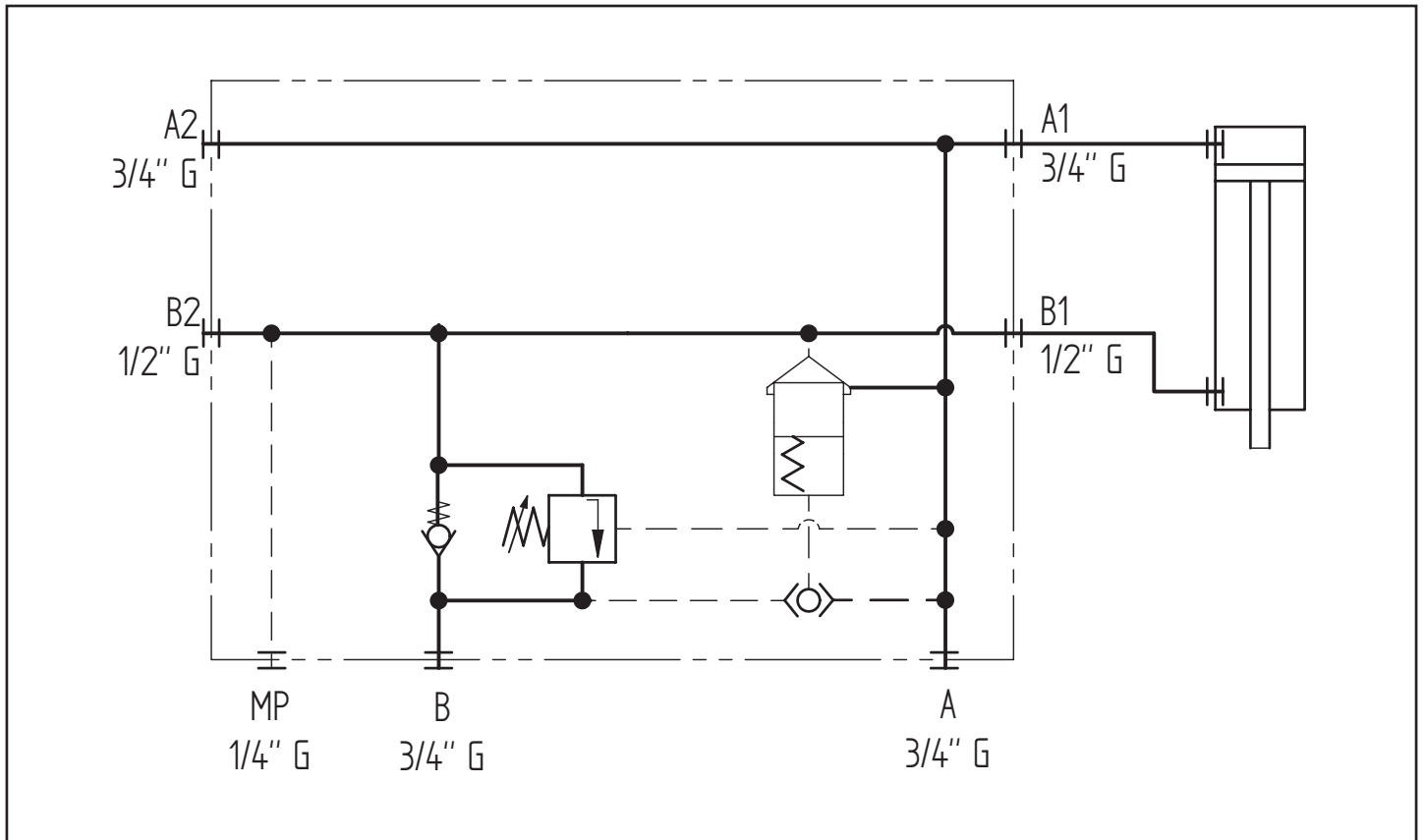
Hydrover product

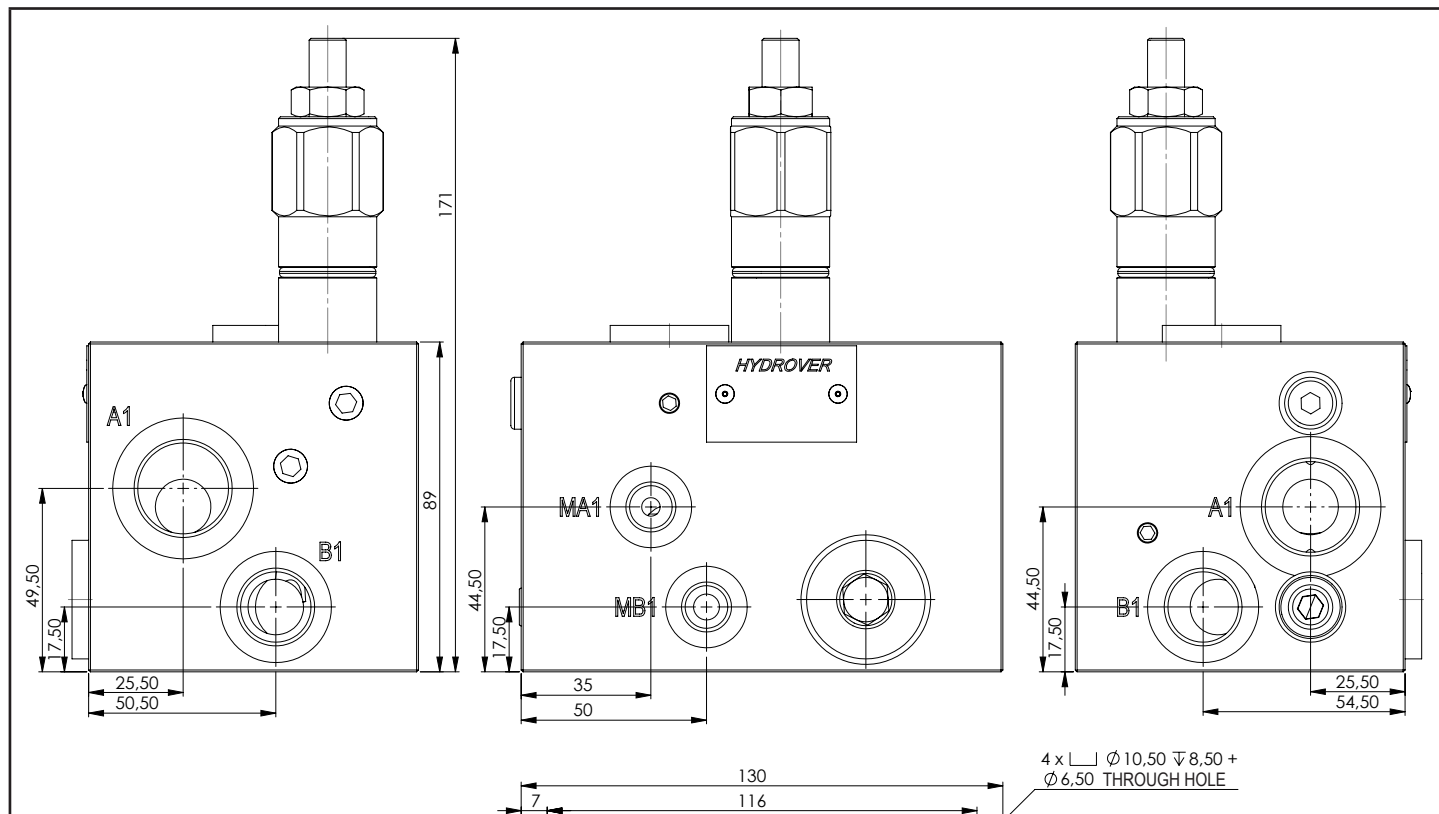
Manifold material
Aluminium

Product series

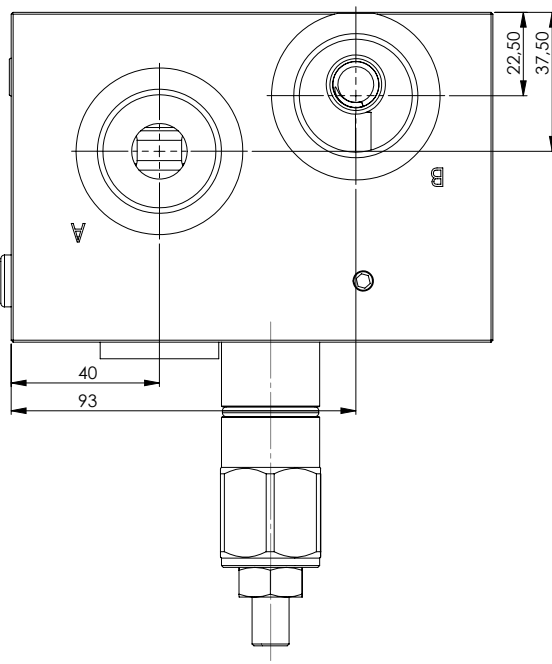
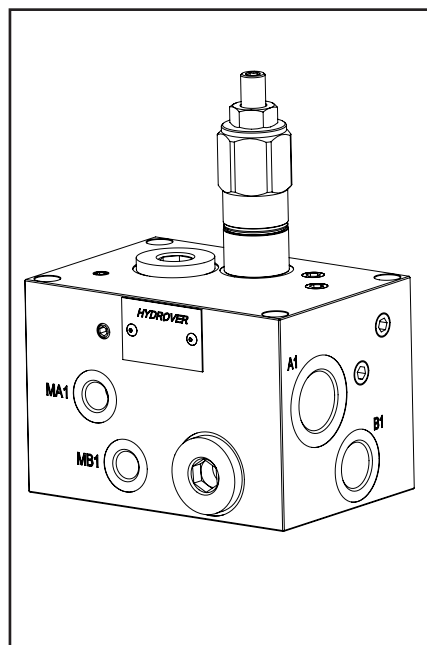
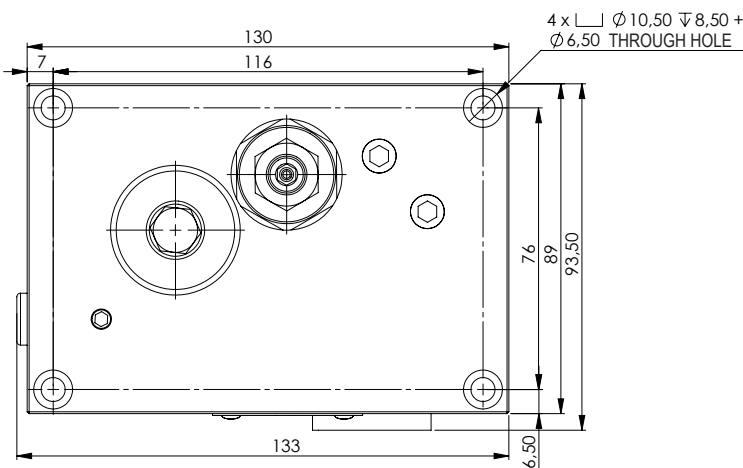
97 series - Multifunctional integrated circuits

Product ID

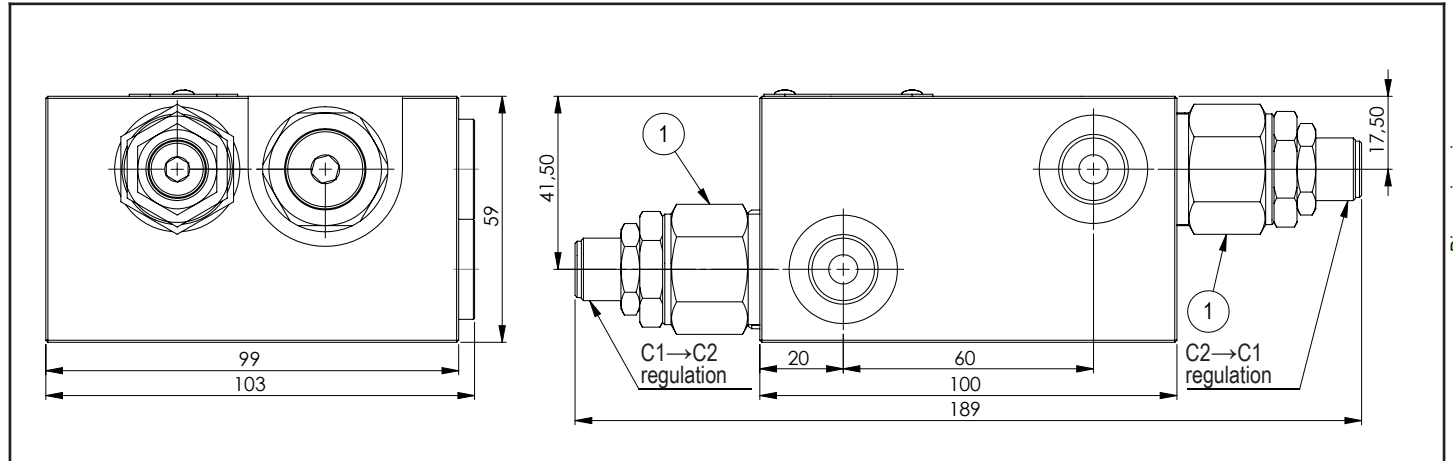




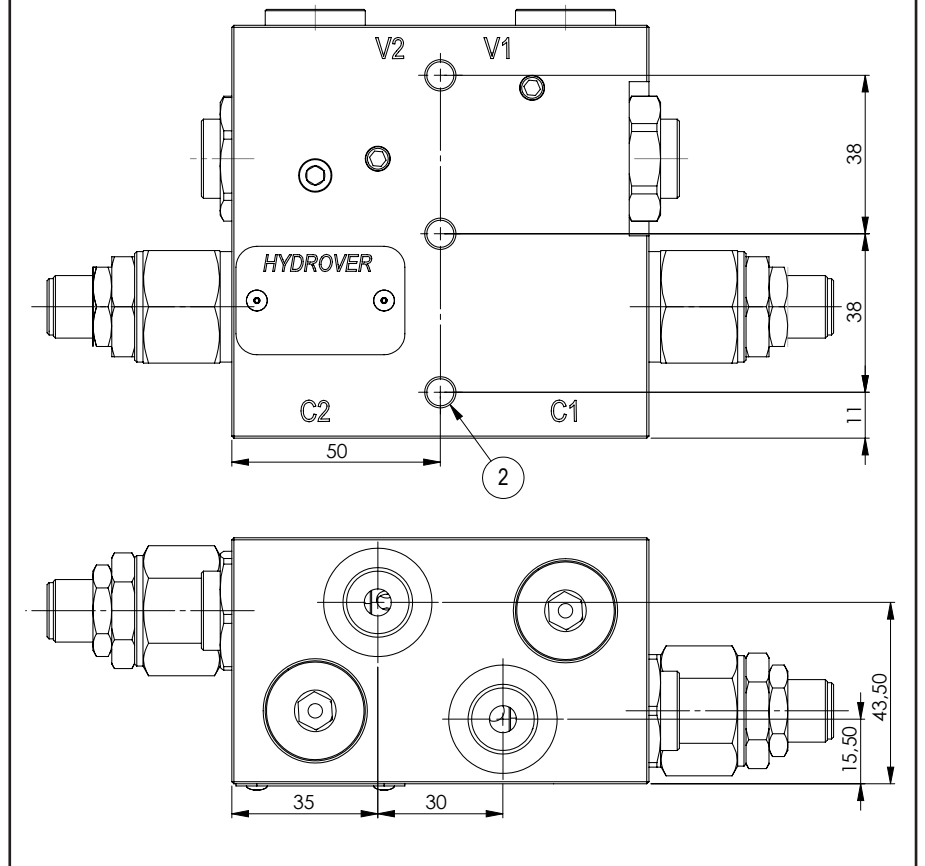
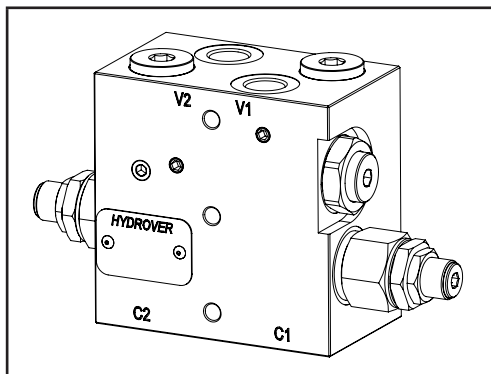
Technical data	
Max. pressure	250 bar
Input max. flow	80 lpm
Weight	7 Kg
Manifold material	Steel
MA1 / MB1 ports	1/4" G
B1 / B1 ports	1/2" G
A1 / A1 ports	3/4" G
A / B ports	1" G



Dimensions in mm



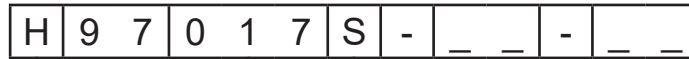
Technical data	
Max. pressure	350 bar
Max. flow	50 lpm
Weight	4,6 Kg
Manifold material	Steel
V1 / V2 / C1 / C2 ports	3/8" G



N°	Description	Q.ty
1	Bosch Rexroth relief valve VMD1.070 *	2
2	Ø 6,5 through hole for mounting	3

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue

Ordering code



Hydrover product

Product series

97 series - Multifunctional integrated circuits

Product ID

Manifold material

Steel

Relief valve

adjustment type C1→C2 *

Screw

= S

Relief valve adjustment pressure range C2→C1 *

- 0 = 10-60 bar
- 1 = 40-110 bar
- 2 = 110-220 bar
- 3 = 220-260 bar

Relief valve adjustment type C2→C1 *

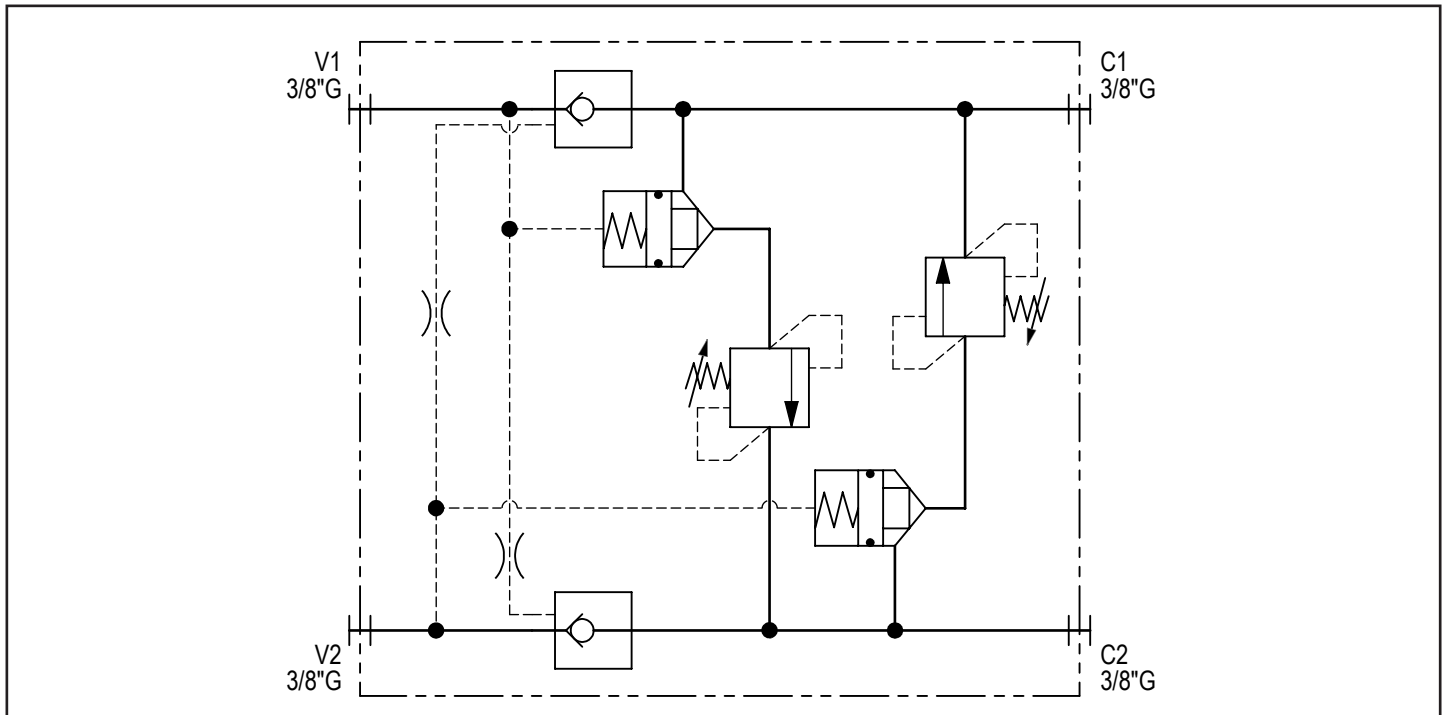
S =

Screw

Relief valve adjustment pressure range C1→C2 *

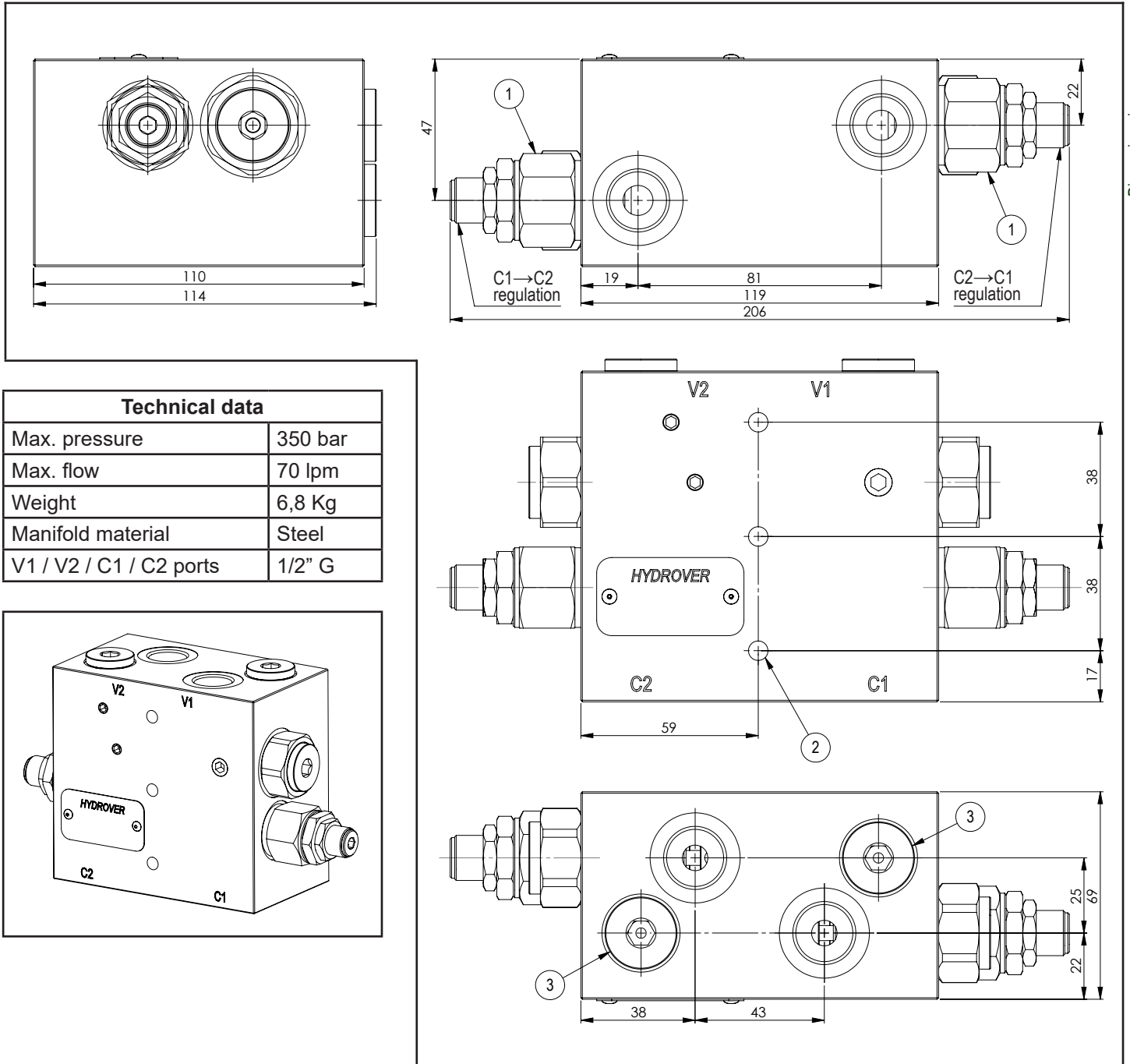
- 0 = 10-60 bar
- 1 = 40-110 bar
- 2 = 110-220 bar
- 3 = 220-260 bar

* Omit if not required. To order the product without the pressure relief cartridge valves, omit the pressure range and the adjustment type options: H97017S. The manifold will still be provided with the corresponding cavities.

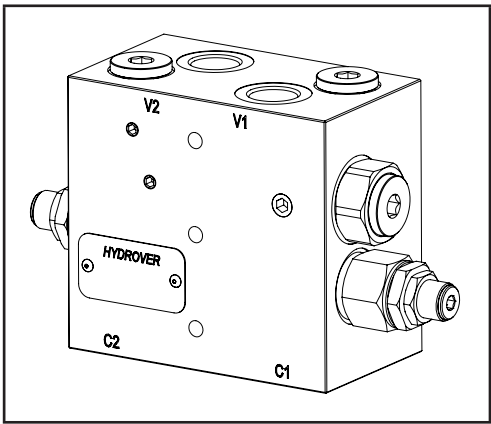


This device is intended for all machines equipped with arm and rotating turret driven by hydraulic motor or rack actuator. It is constituted by a check valve with double effect hydraulic release with dampened piloting (avoids oscillations) and by a double braking valve to discharge cross-inhibited by the oil input to the V1 V2 ports. This peculiarity allows to obtain the maximum pressure in the cue (general maximum pressure valve) and a reduced brake pressure and can be calibrated at the time of the movement.

Dimensions in mm



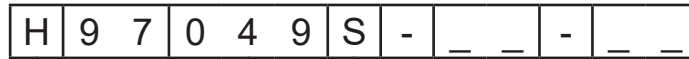
Technical data	
Max. pressure	350 bar
Max. flow	70 lpm
Weight	6,8 Kg
Manifold material	Steel
V1 / V2 / C1 / C2 ports	1/2" G



N°	Description	Q.ty
1	Bosch Rexroth relief valve VMD1.070 *	2
2	Ø 6,5 through hole for mounting	3
3	Logic element	2

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue

Ordering code



Hydrover product

Product series

97 series - Multifunctional integrated circuits

Product ID

Manifold material

Steel

Relief valve

adjustment type C1→C2 *

Screw

= S

**Relief valve adju
pressure range C2→C1 ***

- 0 = 10-60 bar
- 1 = 40-110 bar
- 2 = 110-220 bar
- 3 = 220-260 bar

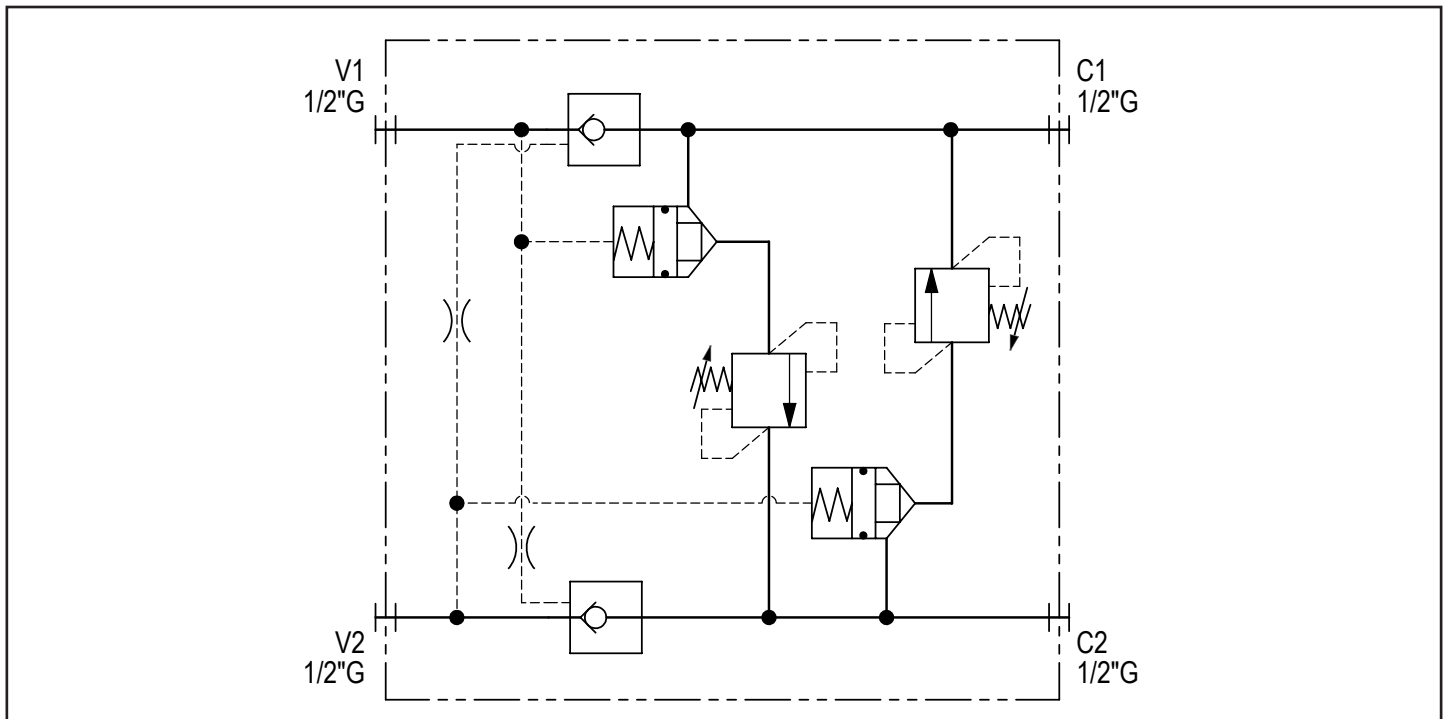
**Relief valve
adjustment type C2→C1 ***

S = Screw

**Relief valve
adjustment pressure range C1→C2***

- 0 = 10-60 bar
- 1 = 40-110 bar
- 2 = 110-220 bar
- 3 = 220-260 bar

* Omit if not required. To order the product without the pressure relief cartridge valves, omit the pressure range and the adjustment type options: H97049S. The manifold will still be provided with the corresponding cavities.



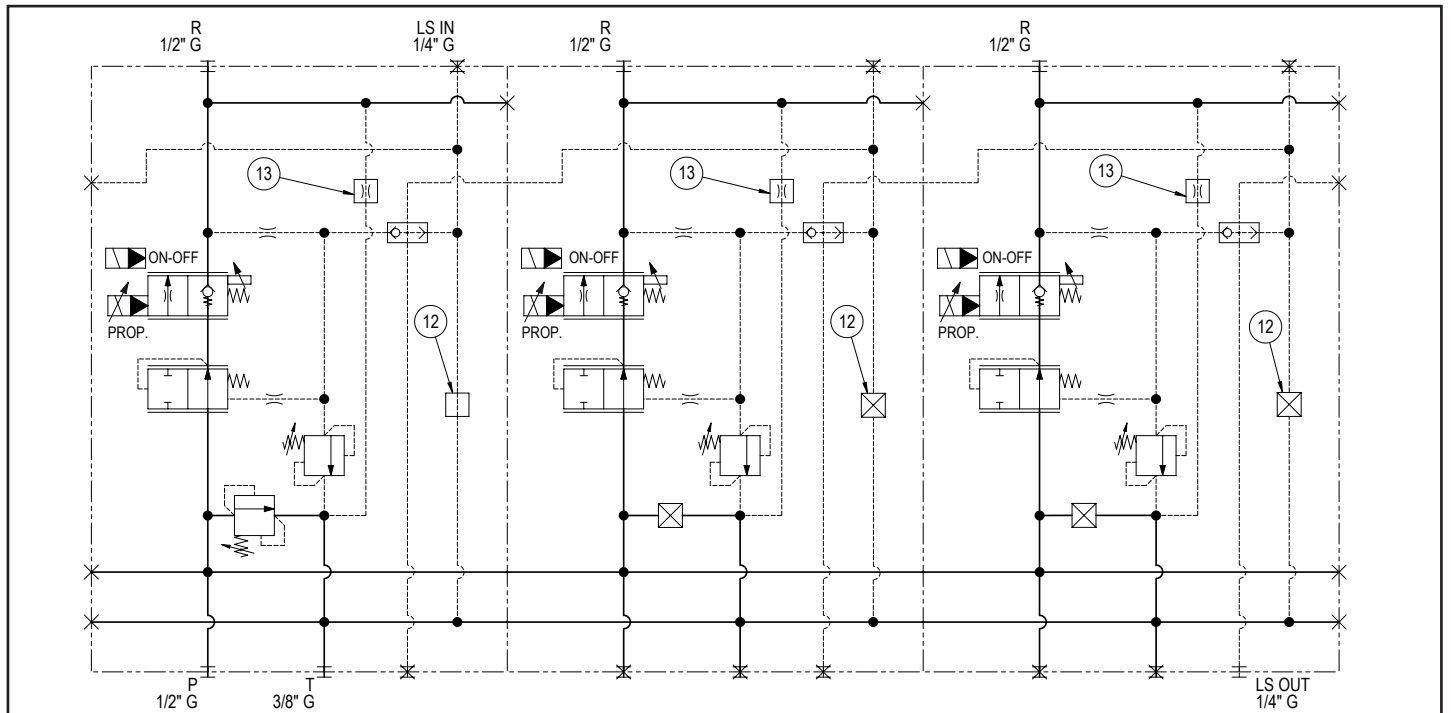
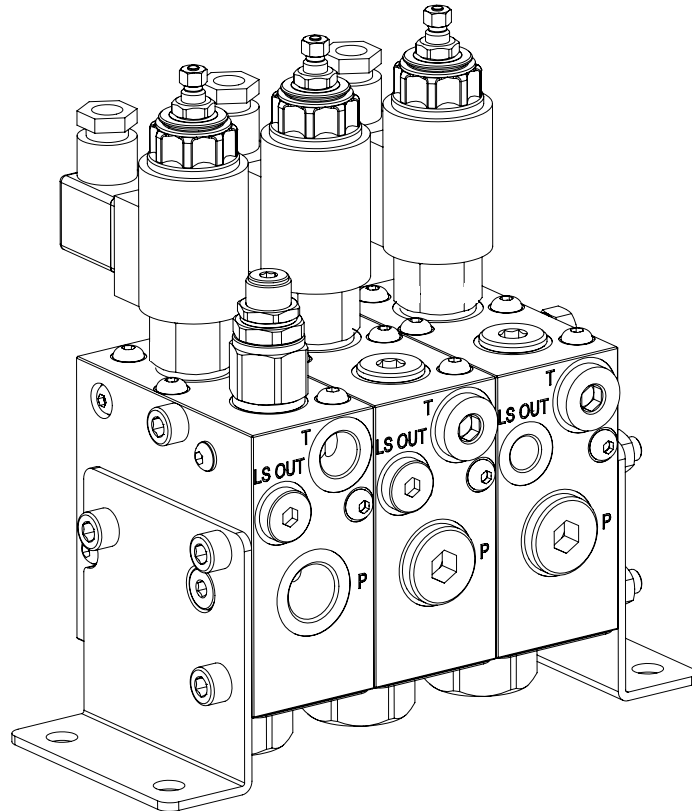
This device is intended for all machines equipped with arm and rotating turret driven by hydraulic motor or rack actuator. It is constituted by a check valve with double effect hydraulic release with dampened piloting (avoids oscillations) and by a double braking valve to discharge cross-inhibited by the oil input to the V1 V2 ports. This peculiarity allows to obtain the maximum pressure in the cue (general maximum pressure valve) and a reduced brake pressure and can be calibrated at the time of the movement.

This equipment allows to set different flow rates and different pressures for multiple outputs connected to the same variable displacement pump. On each section the electrically operated cartridge is the same in on-off and proportional. It is equipped with a manual stroke limitation to use with the on-off coil. The same function is done electrically by adopting a proportional coil. The flow rates and pressures set are also respected for contemporary uses.

To offer greater flexibility in warehouse management, the different types of sections, input / intermediate / closing, use the same manifold. So they can be transformed into another type of section by adding / removing a few components (see bill of materials for details). The LS OUT (towards the pump) must be on the closing section, a potential LS IN (coming from a distributor, for example) on the inlet section.

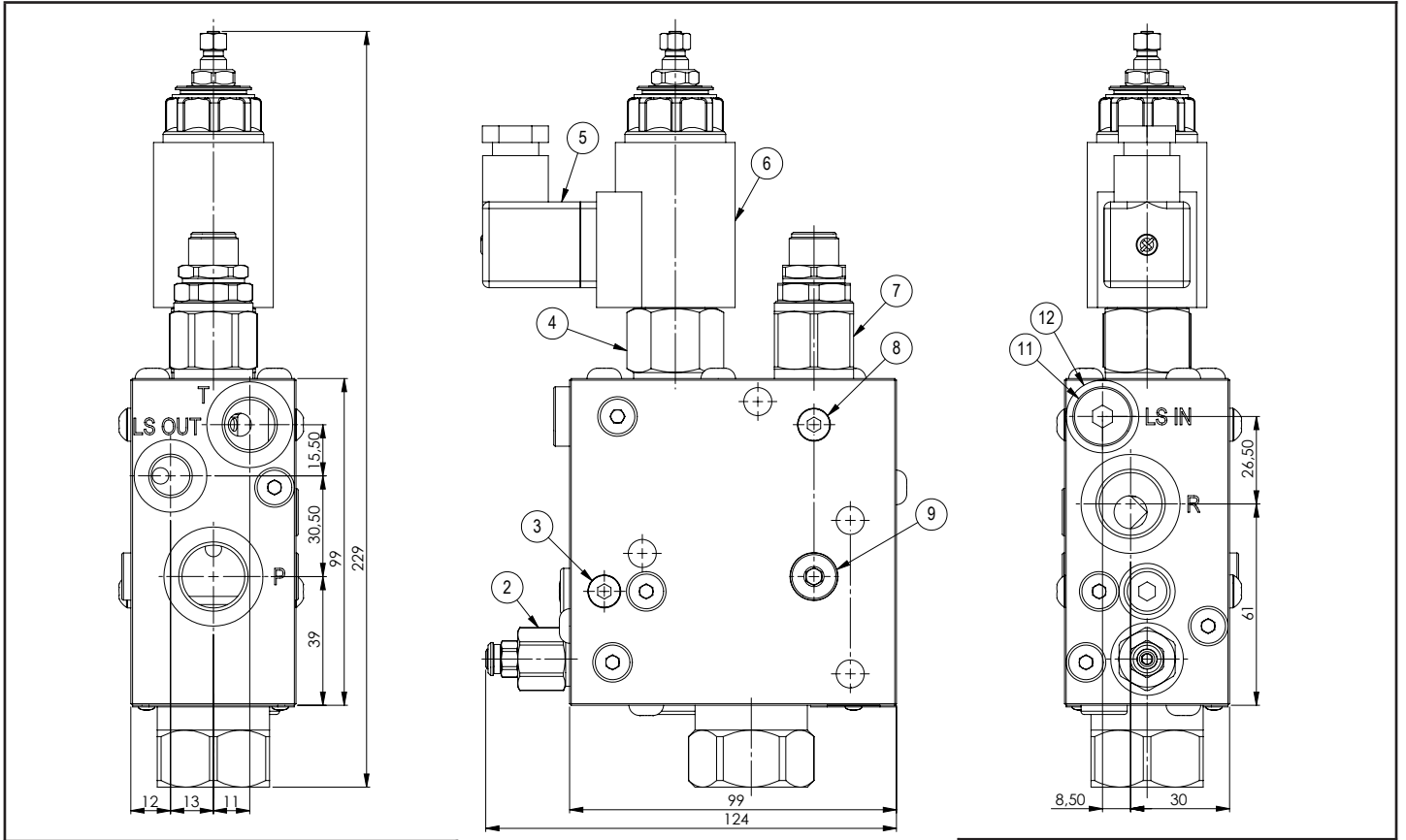
If you need only one section use the stand alone one.

Dimensions in mm

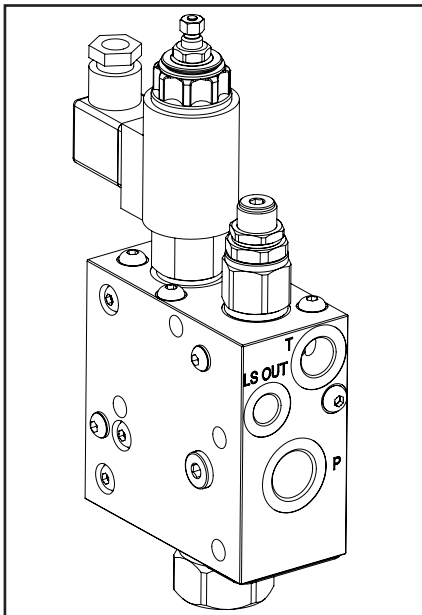
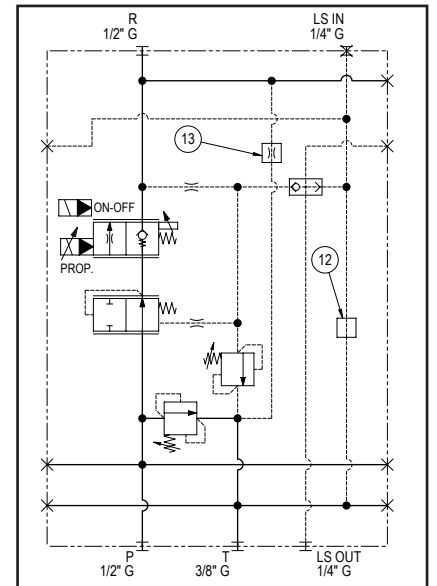
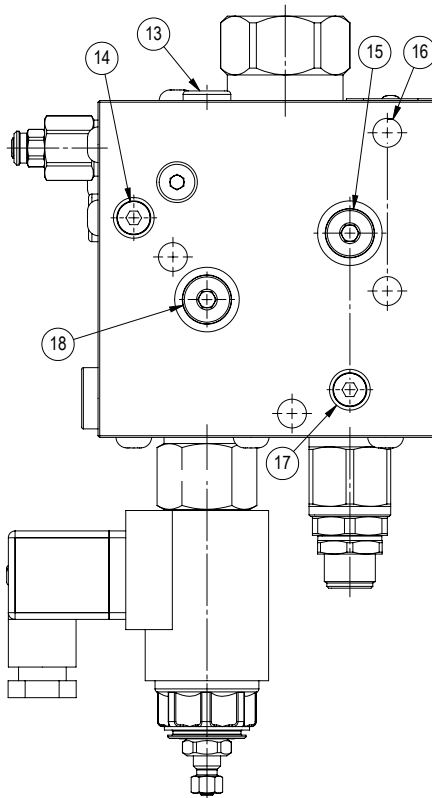
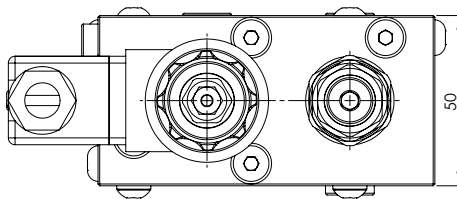


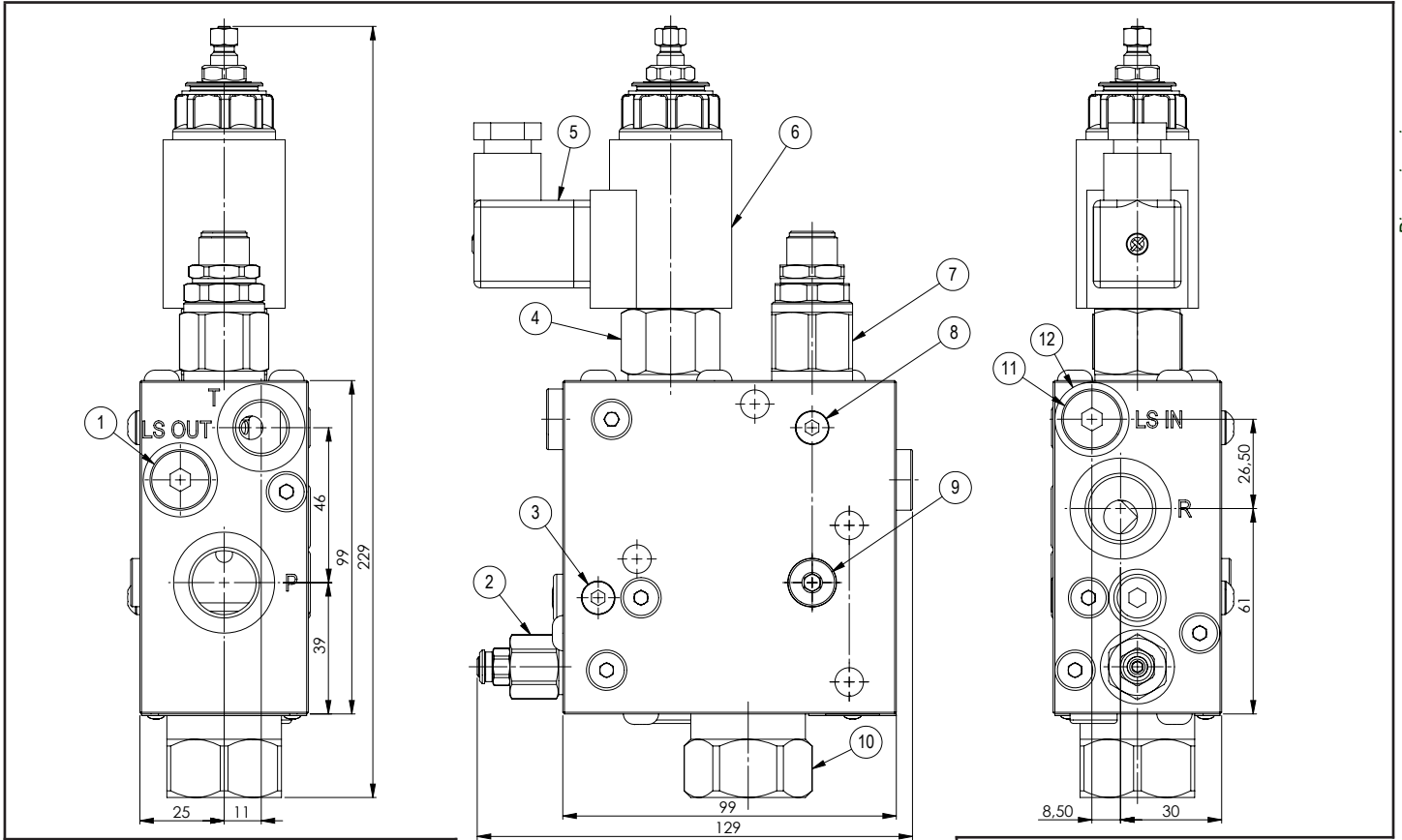
Management block for simultaneous feeds
with a variable displacement pump 1/2" G - Stand alone section

H97133

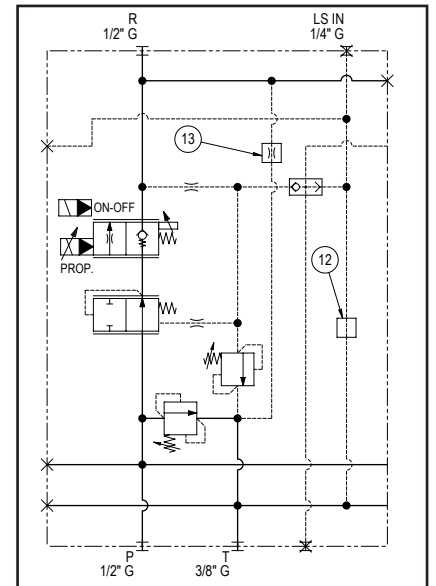
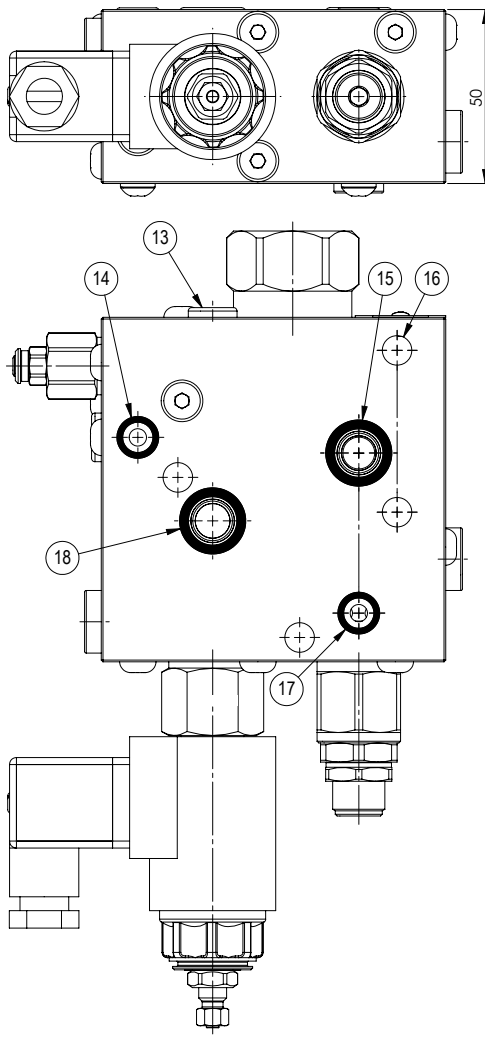
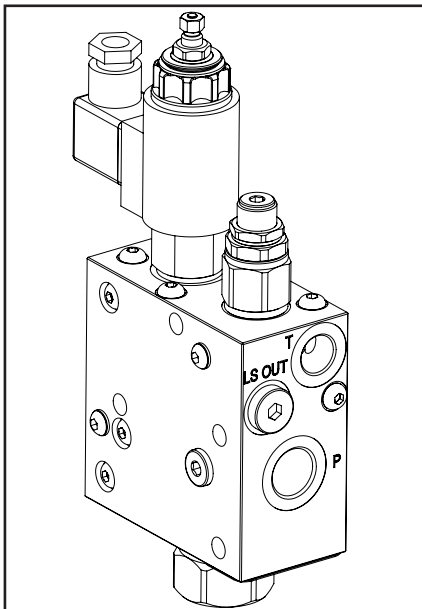


Technical data		
Inlet max. flow	100 lpm	
Regulated max. flow	6 bar spring 50 lpm 12 bar spring 80 lpm	
LS IN / LS OUT ports	1/4" G	
T port	3/8" G	
P / R ports	1/2" G	
Man. material	Aluminium	Steel
Max. pressure	250 bar	350 bar
Weight	2,5 Kg	4,4 Kg



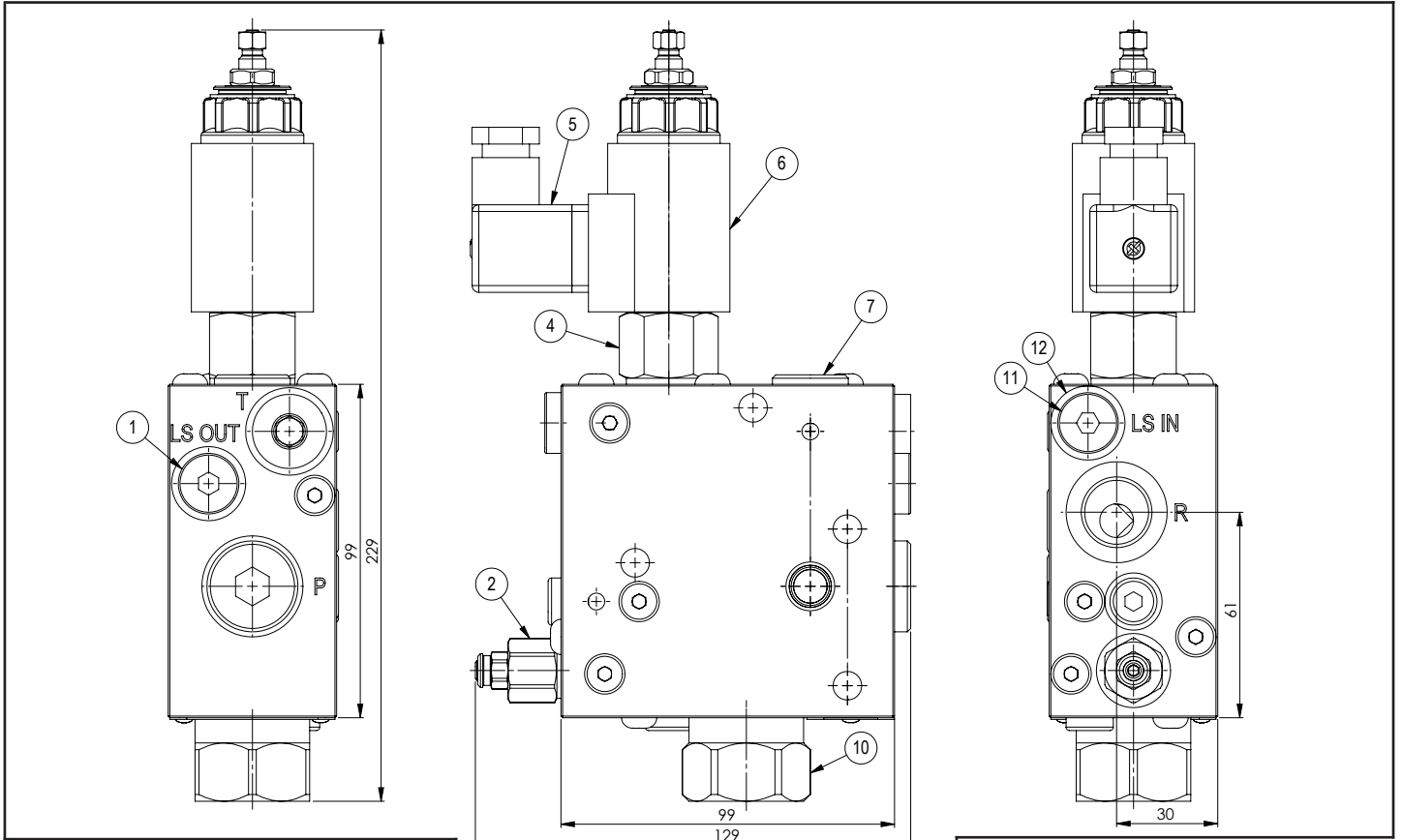


Technical data		
Inlet max. flow	100 lpm	
Regulated max. flow	6 bar spring 50 lpm	12 bar spring 80 lpm
LS IN port	1/4" G	
T port	3/8" G	
P / R ports	1/2" G	
Man. material	Aluminium	Steel
Max. pressure	250 bar	350 bar
Weight	2,5 Kg	4,4 Kg

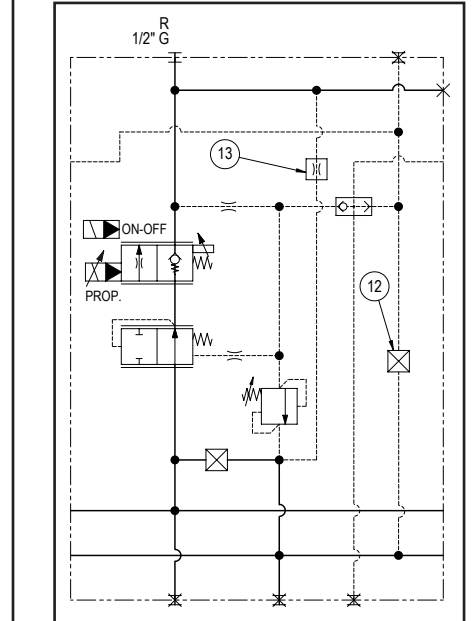
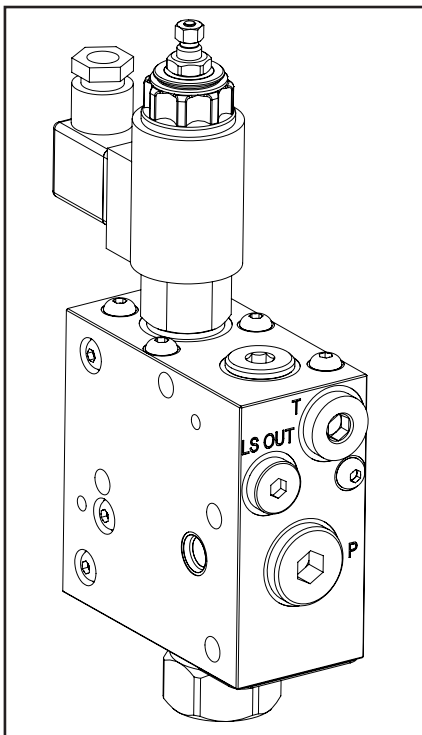
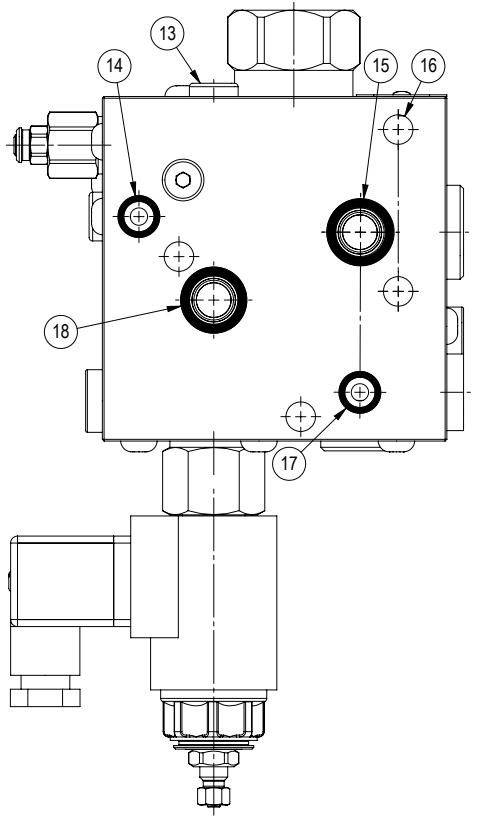
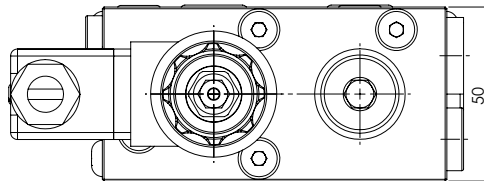


Management block for simultaneous feeds
with a variable displacement pump 1/2" G - Intermediate section

H97133



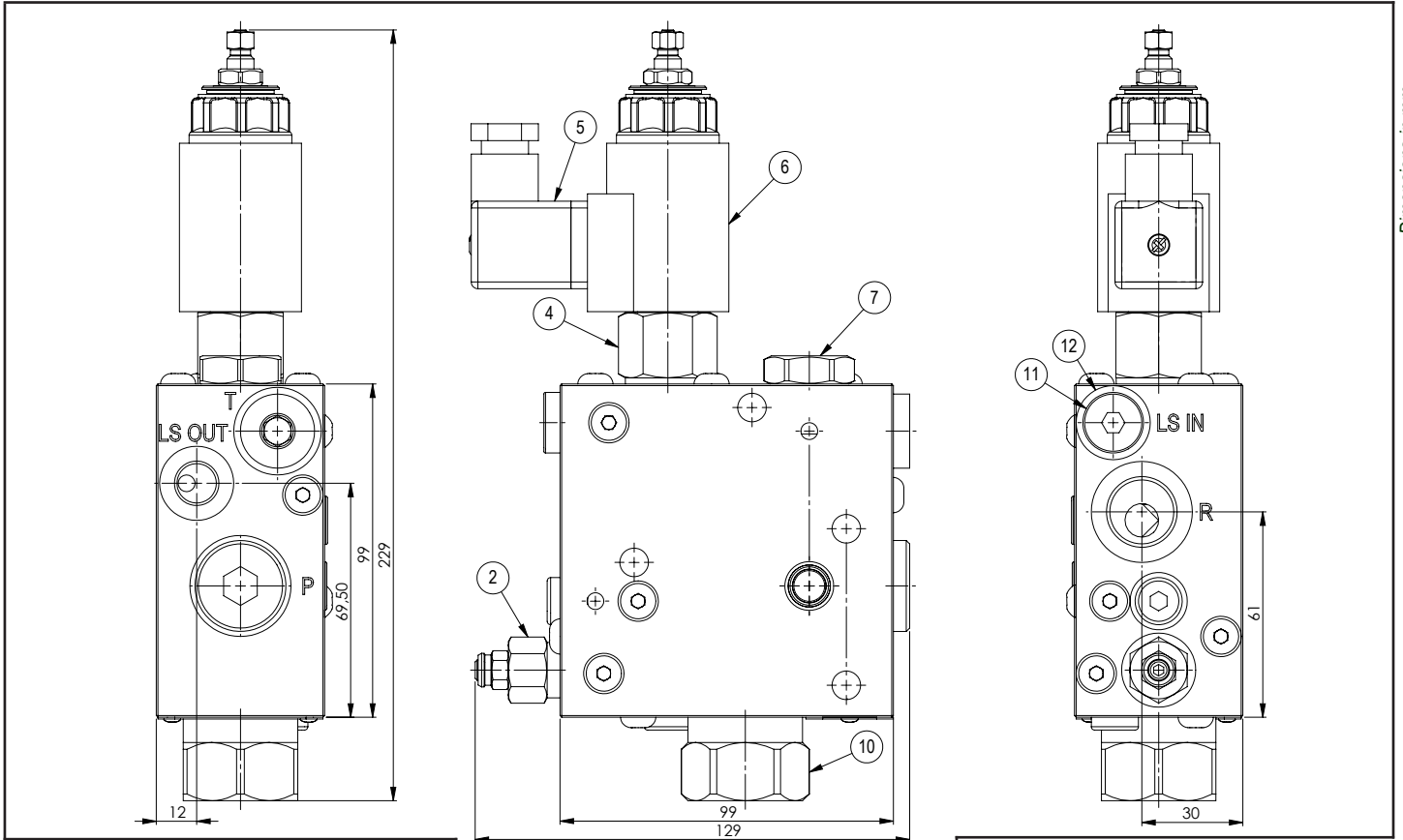
Technical data		
Regulated max. flow	6 bar spring 50 lpm 12 bar spring 80 lpm	
R port	1/2" G	
Man. material	Aluminium	Steel
Max. pressure	250 bar	350 bar
Weight	2,4 Kg	4,3 Kg



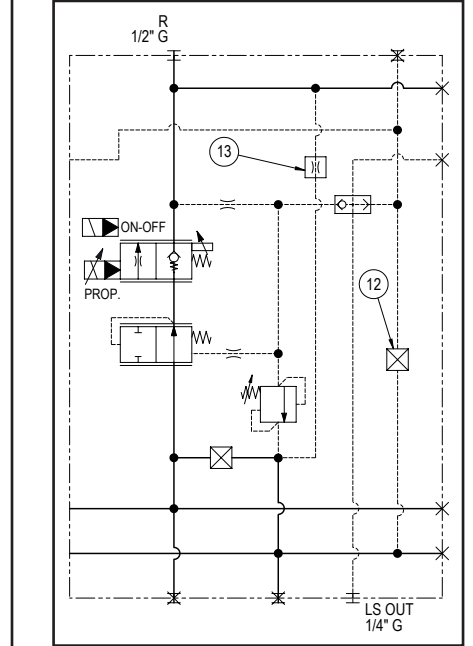
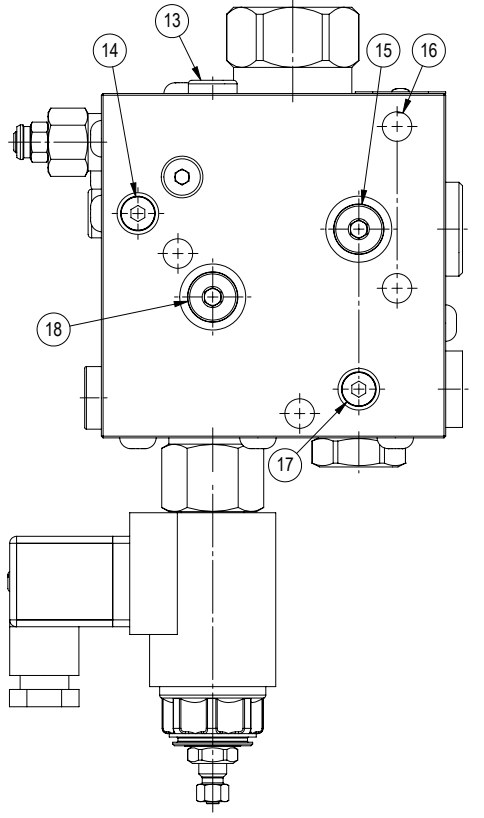
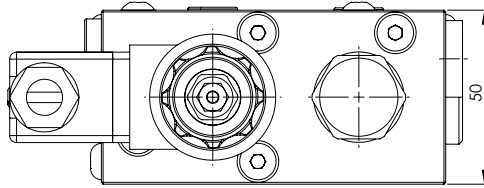
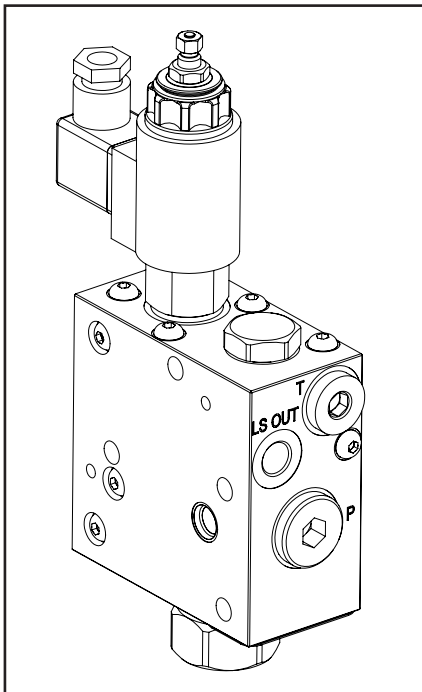
Management block for simultaneous feeds
with a variable displacement pump 1/2" G - Closing section

H97133

Dimensions in mm



Technical data		
Regulated max. flow	6 bar spring 50 lpm 12 bar spring 80 lpm	
LS OUT port	1/4" G	
R port	1/2" G	
Man. material	Aluminium	Steel
Max. pressure	250 bar	350 bar
Weight	2,4 Kg	4,3 Kg



Ordering code



Hydrover product

Product series
97 series - Multifunctional integrated circuits

Product ID

Manifold material

Aluminium =A
Steel =S

Compensator spring

6 bar (standard) = 6
12 bar = 1

Section type

Stand alone = U
Inlet = E
Intermediate = I
Closing = C

Plugs configuration

LS IN and R decompression (E and U sections) = 1
LS IN without R decompression (E and U sections) = 2
R decompression = 3
Without R decompression = 4

Solenoid valve coil connection

1 = DIN 43650
ISO 4400

Solenoid valve coil voltage

OB = 12V DC
OC = 24V DC

Solenoid valve coil type

OF = On-off
PR = Proporzionale

Relief valve adjustment pressure range *

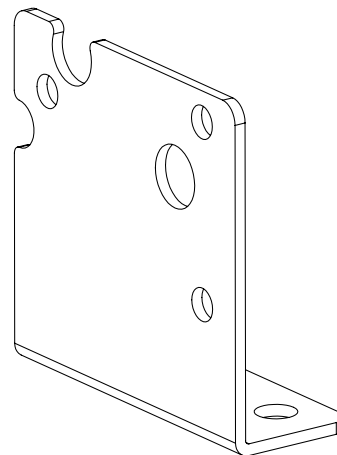
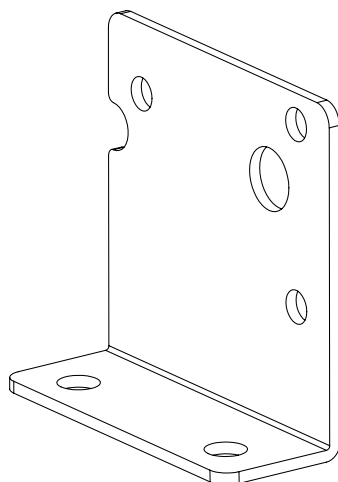
2 = 100-250 bar
3 = 250-600 bar

Relief valve adjustment type

S = Screw

HKS01S - Brackets kit in zinc plated steel

HKS01X - Brackets kit in inox 316L



N°	Descrizione	Q.ty
1	TPCLG-14G (LS OUT) - On inlet and intermediate sections	1
2	Relief valve with filter for the R port	1
3	TBEIB 6x8 on the inlet section (LS)	1
4	On-off/proportional flow restrictor with manual stroke limitation	1
5	Connector DIN 43650 ISO 4400	1
6	On-off or proportional coil class H DIN 43650 ISO 4400	1
7	Anti shock valve 120-350 bar on the inlet section, plug R932003194 on the other sections	1
8	TBEIB 6x8 on inlet and stand alone sections (T)	1
9	TPCLOR7/16"UNF on inlet and stand alone sections (P)	1
10	Pressure compensator	1
11	TPCLG-14G (LS IN) - To be removed to connect an LS IN on inlet and stand alone sections.	1
12	TPCN 6 - In the LS IN port - On the intermediate and closing section. To add on inlet and stand alone sections if a LS IN is connected.	1
13	Under 1/8"G plug - TPCN 6 without R decompression (plugs configuration 2 and 4) DIAFRM6D0.4 with R decompression (1 and 2 plug configuration)	1
14	TBEIB 6x8 on closing and stand alone sections, OR 108 Ø i. 8,73 c. s. 1,78 on the other sections (LS)	1
15	TPCLOR7/16"UNF on closing and stand alone sections, OR 3056 Ø i. 13,95 c. s. 2,62 on the other sections (P)	1
16	Ø 8,5 through hole for tie rod	4
17	TBEIB 6x8 on closing and stand alone sections, OR 108 Ø i. 8,73 c. s. 1,78 on the other sections (T)	1
18	TPCLOR7/16"UNF on closing and stand alone sections, OR 3056 Ø i. 13,95 c.s. 2,62 on the other sections (side R, used for other types of sections like for managing single acting cylinders).	1

Dimensions in mm

Management block for simultaneous feeds
with a variable displacement pump 3/4" G

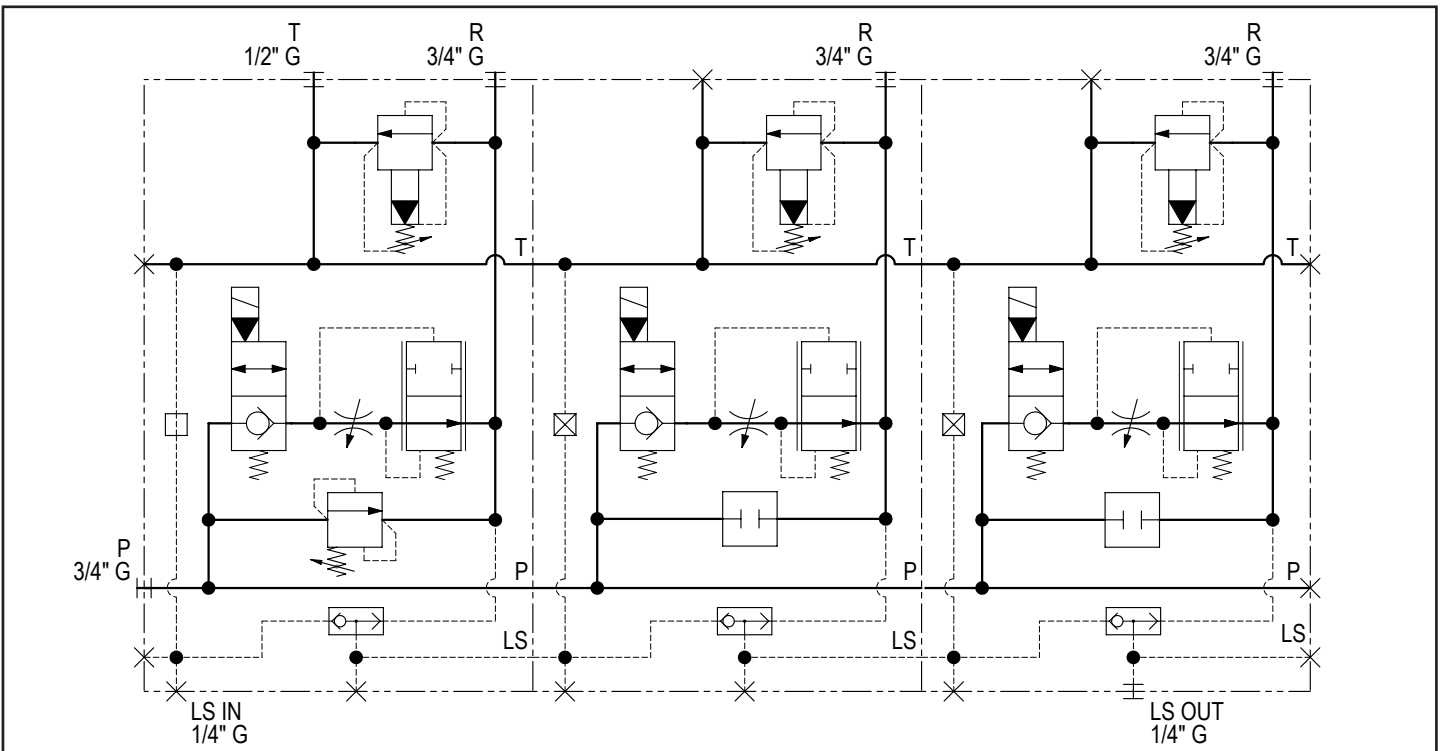
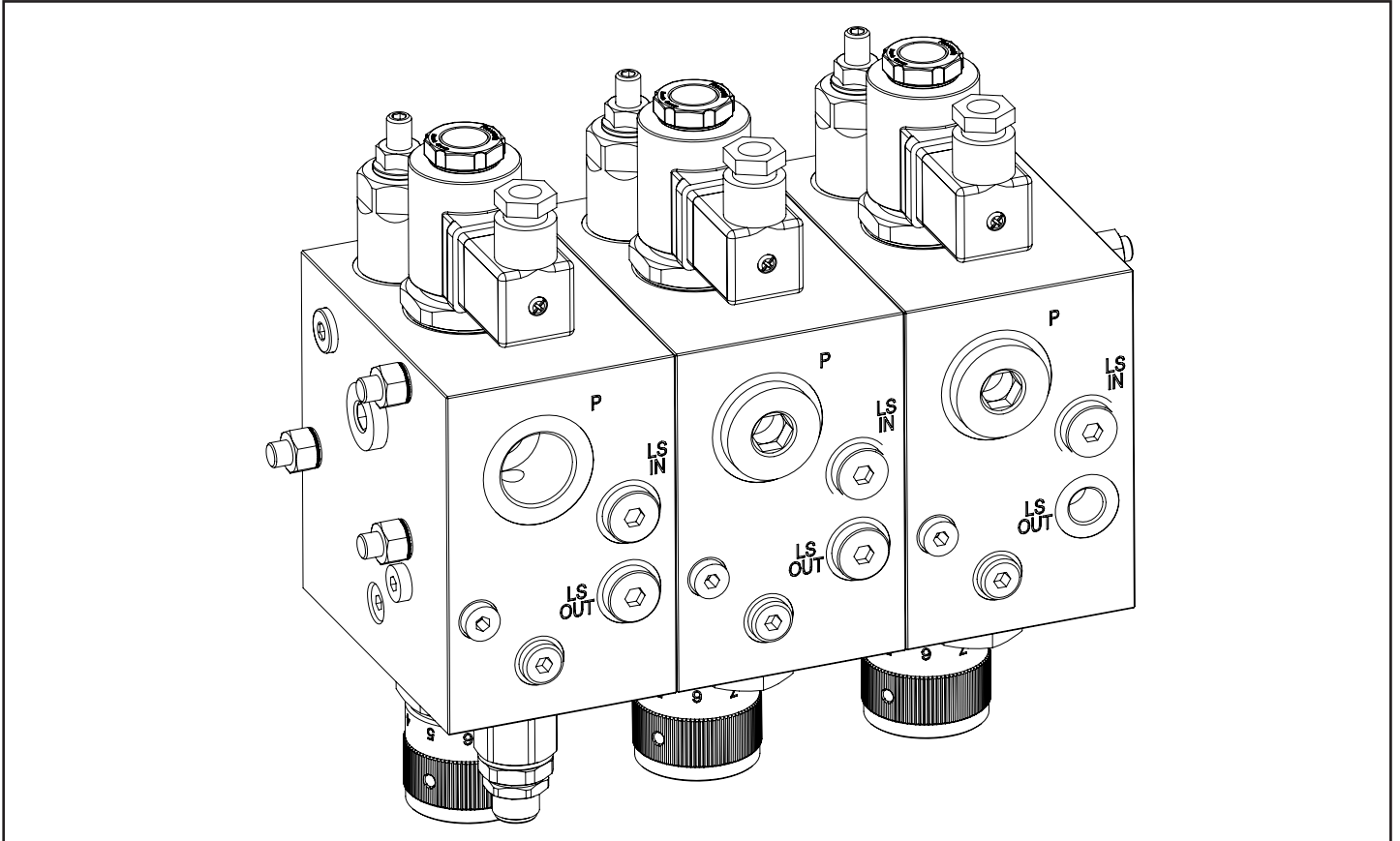
H97101

This equipment allows to set different flow rates and different pressures for multiple outputs connected to the same variable displacement pump. The flow rates and pressures set are also respected for contemporary uses.

To offer greater flexibility in warehouse management, the different types of sections, input / intermediate / closing, use the same manifold. As a result, they can be transformed into another type of section by adding / removing a few components (see separate components for details). The LS OUT (towards the pump) must be on the closing section, a potential LS IN (coming from a distributor, for example) on the inlet section.

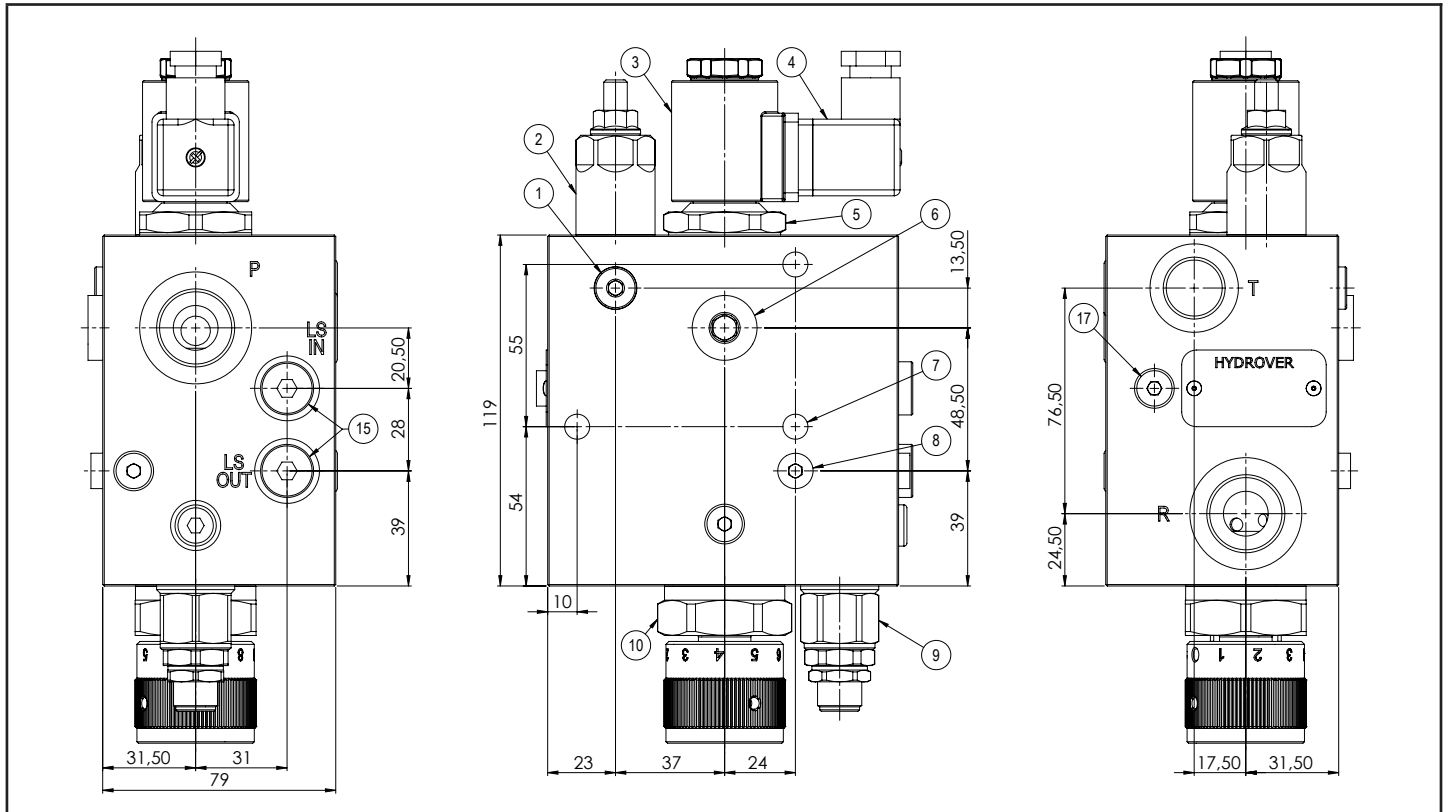
The inlet section can be used stand alone.

Dimensions in mm

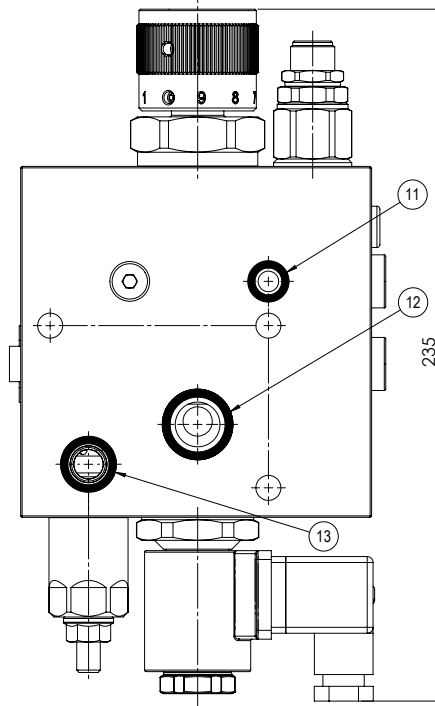
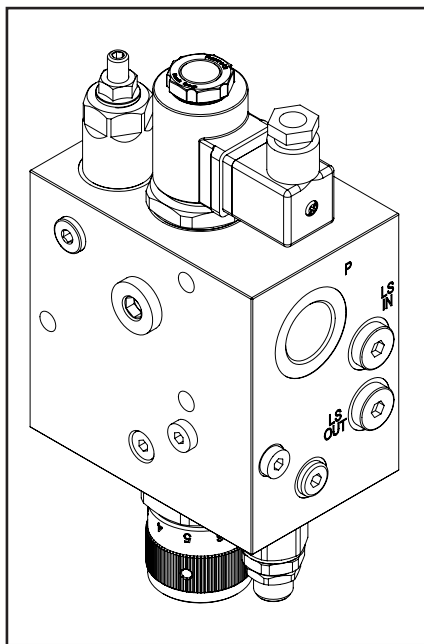
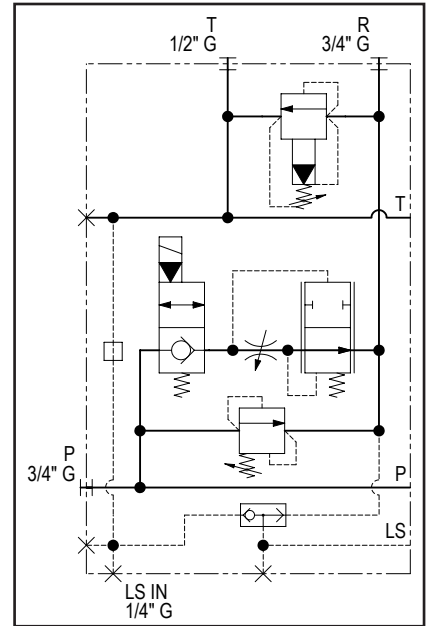
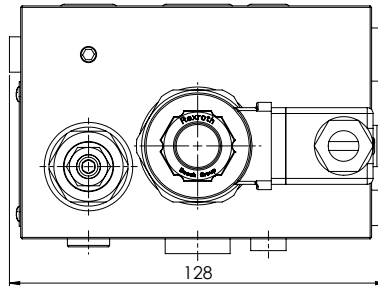


Management block for simultaneous feeds
with a variable displacement pump 3/4" G - Inlet section

H97101



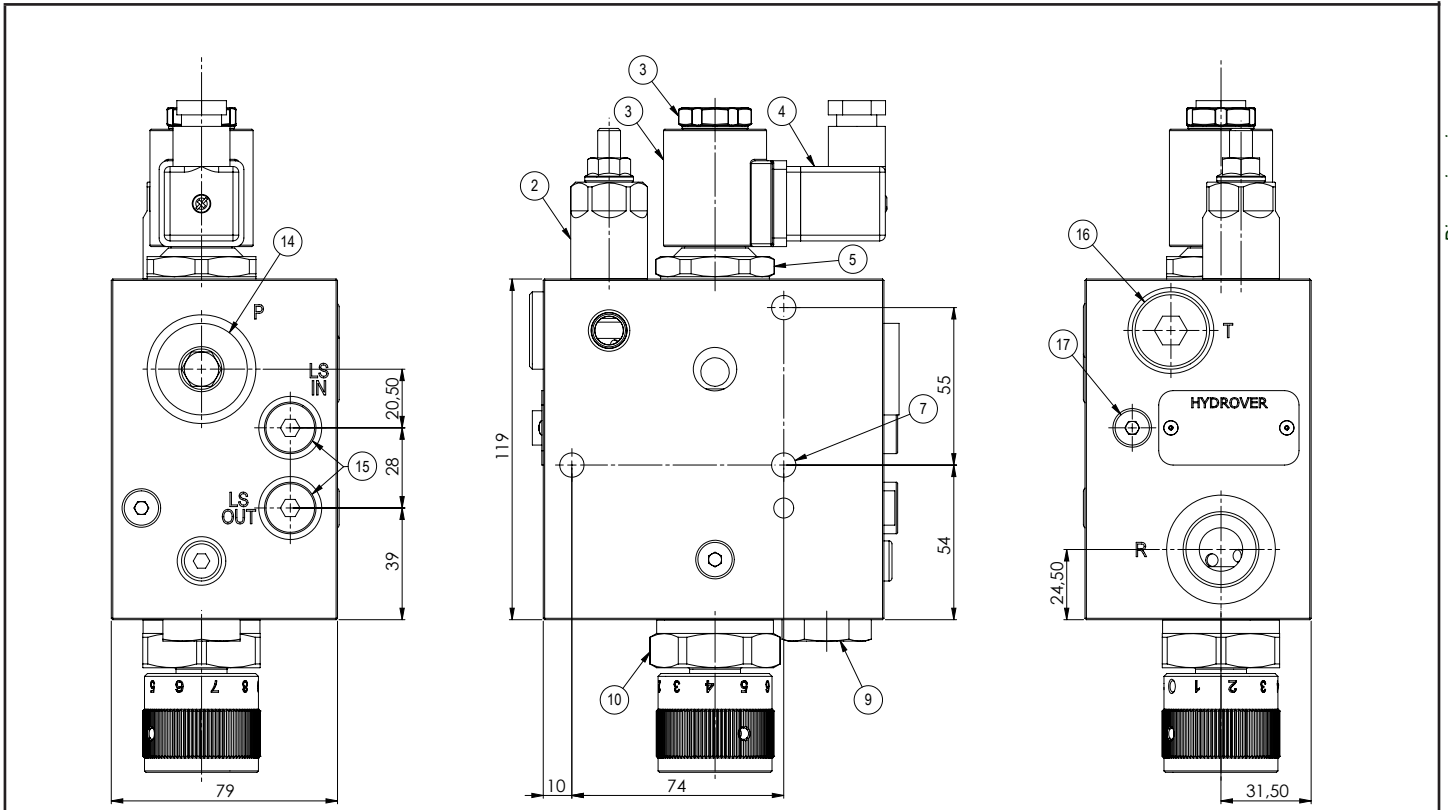
Technical data		
Inlet max. flow	150 lt/1	
Regulated max. flow	100 lt/1	
LS IN / LS OUT ports	1/4" G	
T port	1/2" G	
P / R ports	3/4" G	
Man. material	Aluminium	Steel
Max. pressure	250 bar	350 bar
Weight	4 Kg	8,5 Kg



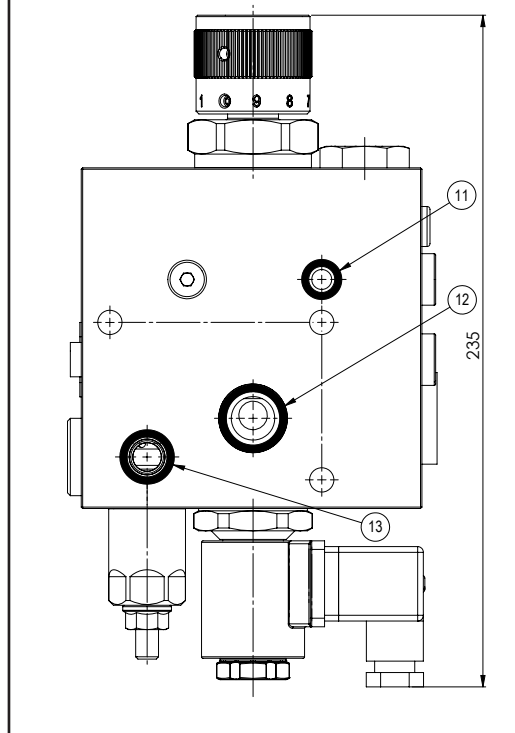
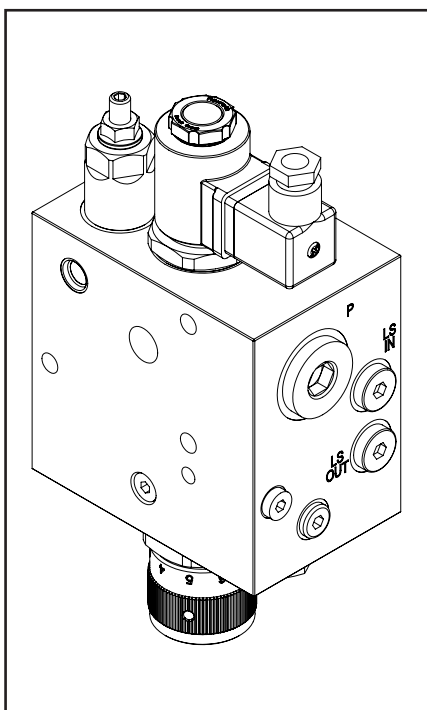
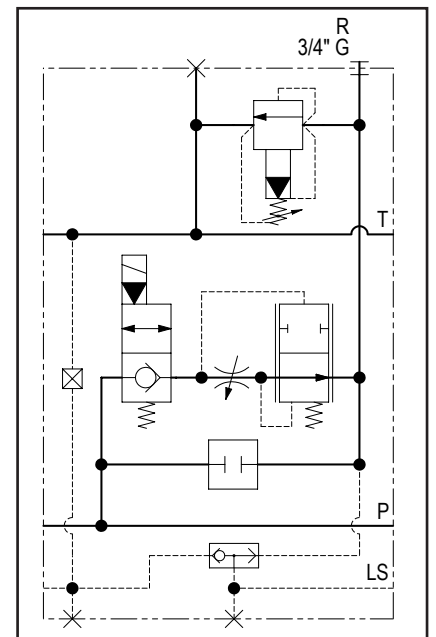
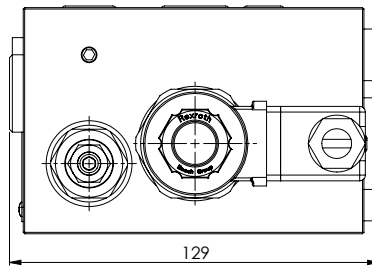
Management block for simultaneous feeds
with a variable displacement pump 3/4" G - Intermediate section

H97101

Dimensions in mm

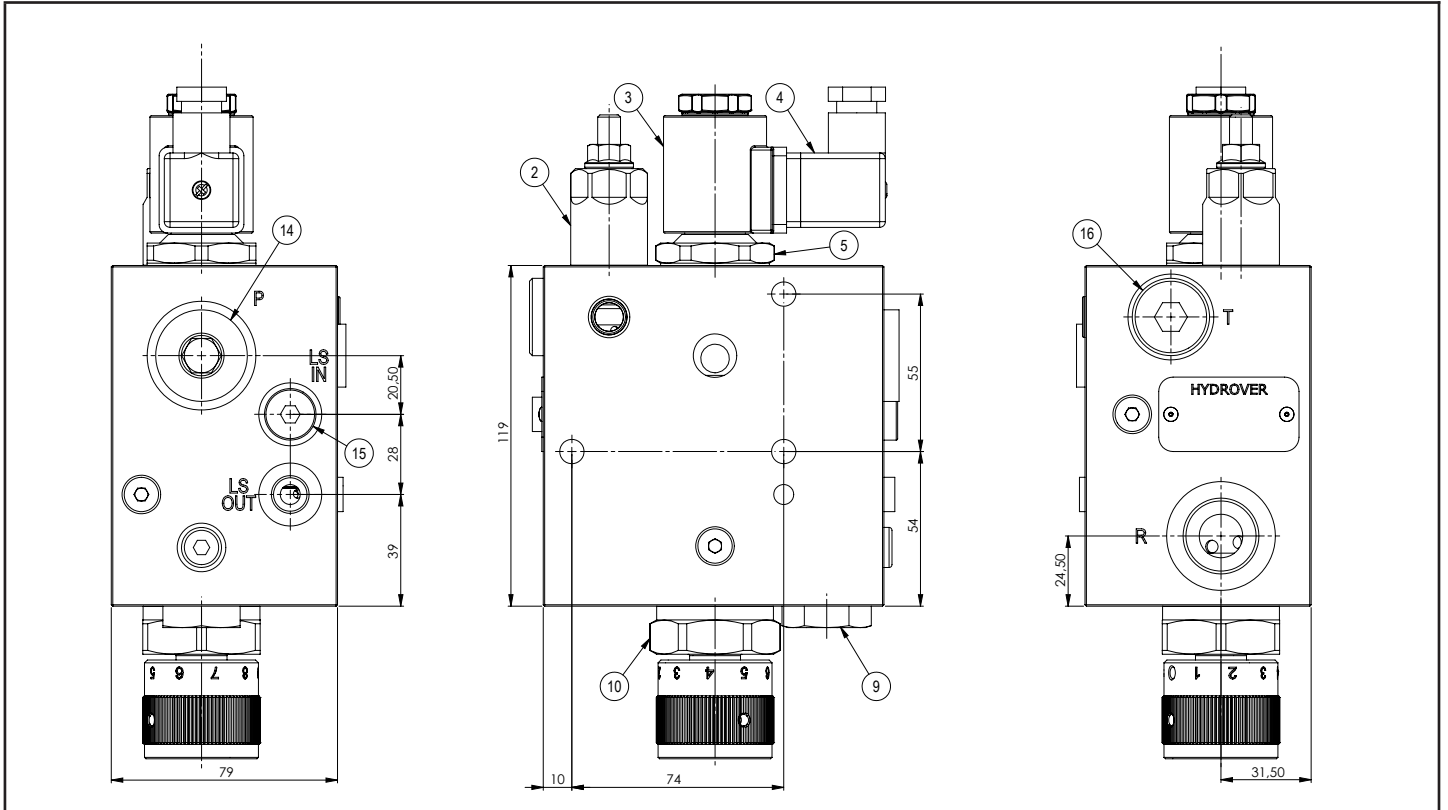


Technical data		
Regulated max. flow	100 lt/1	
R port	3/4" G	
Manifold material	Aluminium	Steel
Maximum pressure	250 bar	350 bar
Weight	4 Kg	8,5 Kg

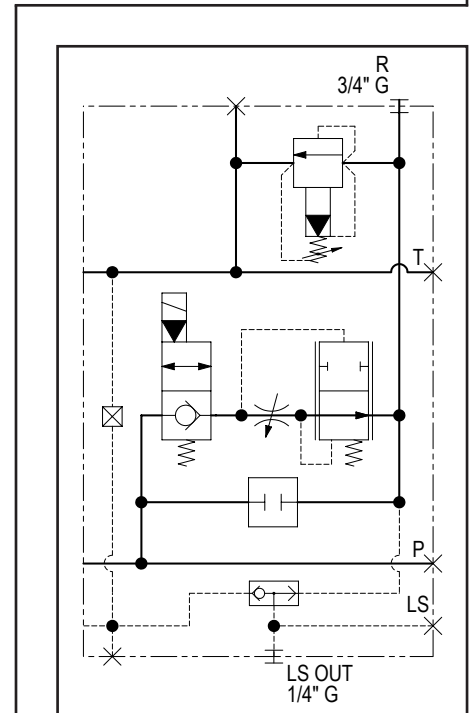
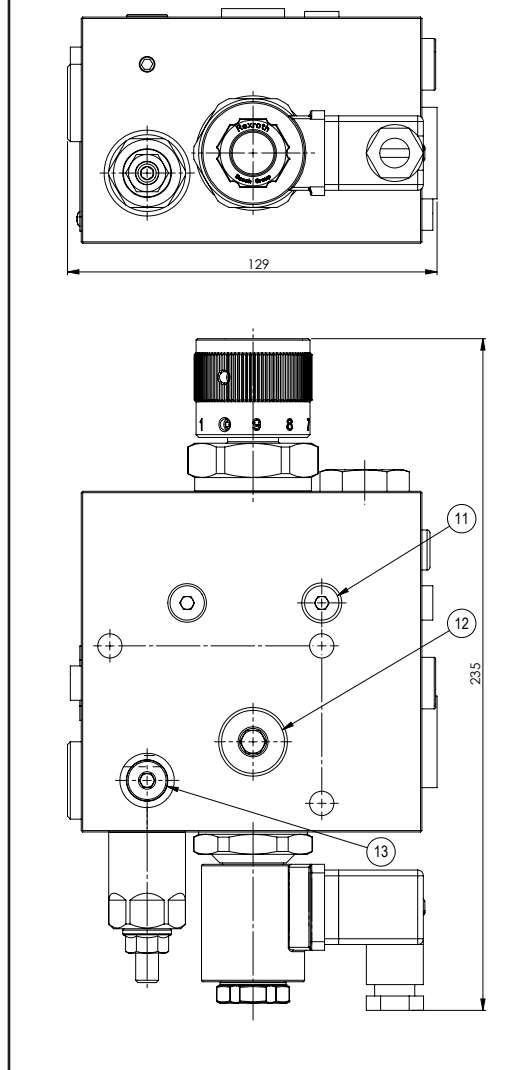
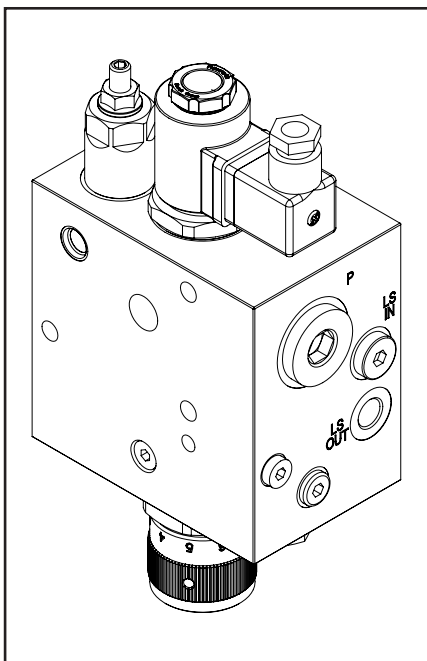


Management block for simultaneous feeds
with a variable displacement pump 3/4" G - Closing section

H97101



Technical data		
Regulated max. flow	100 lt/1	
LS OUT port	1/4" G	
R port	3/4" G	
Manifold material	Aluminium	Steel
	Maximum pressure	250 bar / 350 bar
Weight	4 Kg	8,5 Kg



Ordering code

H	9	7	1	0	1	-	-	-	-	-	-	-	-	-	-
---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

Hydrover product

Product series
97 series - Multifunctional integrated circuits

Product ID

Manifold material

Aluminium =A
Steel =S

Section type

Inlet = E
Intermediate = I
Closing = C

Relief valve adjustment type on R *

Screw = S
Knob = K

Solenoid valve coil connection *

1 = DIN 43650
ISO 4400

Solenoid valve coil voltage *

OB = 12V DC
OC = 24V DC
OD = 48V DC
OU = 110V RAC
AH = 230V RAC

Solenoid valve manual override *

E0 = Without
EV = Screw

Relief valve adjustment pressure range on R *

1 = 35-140 bar
2 = 70-280 bar
3 = 140-420 bar
3 = 35-350 bar (adj. knob)

Dimensions in mm

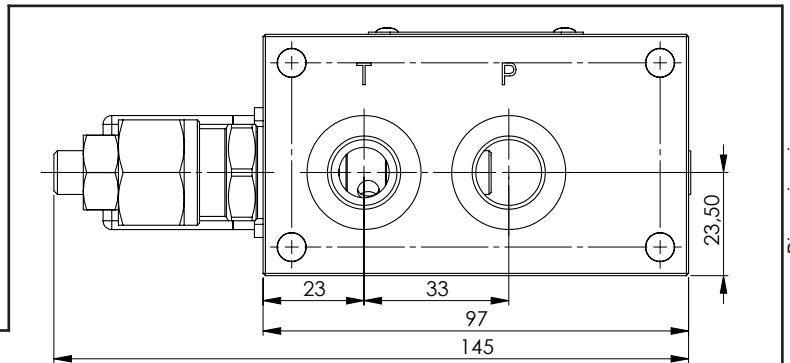
N°	Description	Q.ty
1	TPCLOR7/16"UNF on the inlet section (T)	1
2	Bosch Rexroth relief valve on R VSPN-10A * depicted with screw adjustment	1
3	Bosch Rexroth coil D36 - CLASS H DIN 43650 ISO 4400 *	1
4	Connector DIN 43650 ISO 4400	1
5	Bosch Rexroth solenoid valve OD.15.05.21-Y-00000 depicted without manual override *	1
6	TPCLG-38G on the inlet section (P)	1
7	Ø 8,5 through hole for tie rod	3
8	TPCLG8X1 on the inlet section (LS)	1
9	HCMM03-S3 50-350 bar anti-shock valve on the inlet plate, 0489A2008500000 plug on the other sections.	1
10	Flow regulator	1
11	TPCLG8X1 on the closing section, OR 109 Ø i. 9,13 c. s. 2,62 on the other sections (LS)	1
12	TPCLG-38G on the closing section, OR 3075 Ø i. 18.72 c. s. 2,62 on the other sections (P)	1
13	TPCLOR7/16"UNF on the closing section, OR 3056 Ø i. 13.95 c. s. 2,62 on the other sections (T)	1
14	TPCLG-34G on the intermediate and closing sections (P)	1
15	TPCLG-14G on the inlet and intermediate sections (LS OUT), on all sections (LS IN)	1
16	TPCLG-12G on the intermediate and closing sections (T)	1
17	TPCN 6 under the TPCLG-M8X1 on intermediate and closing sections. To add on the inlet section if a LS IN is connected.	1

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue

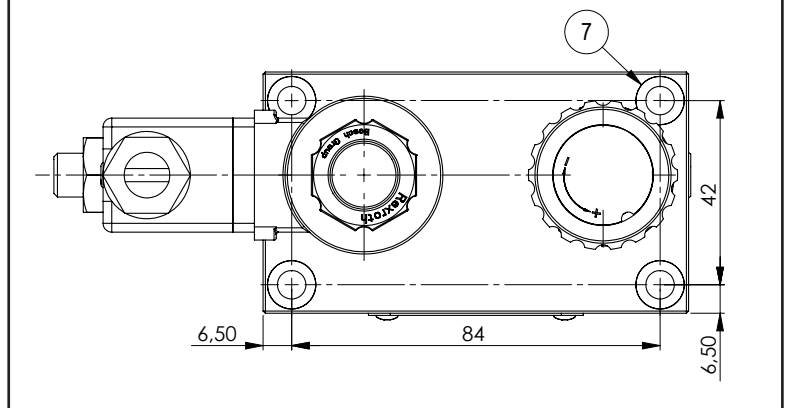
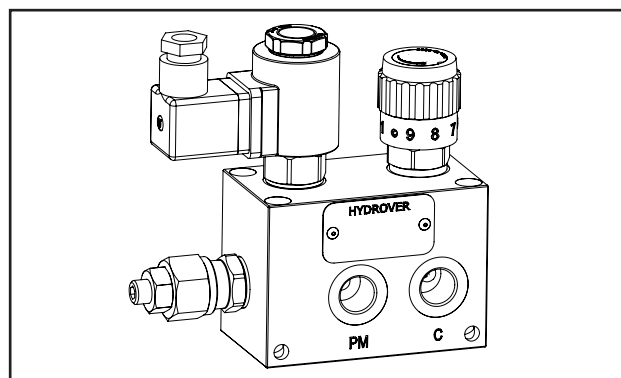
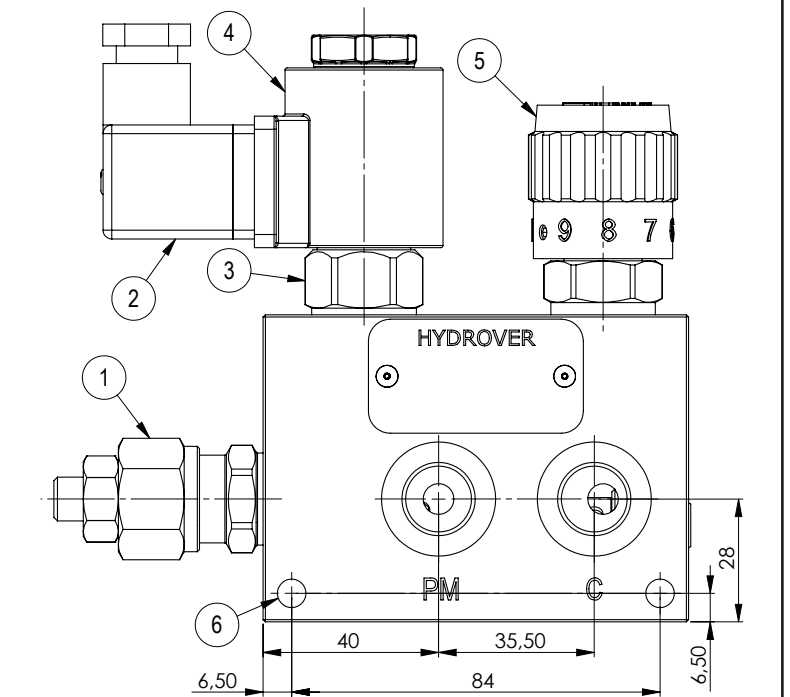
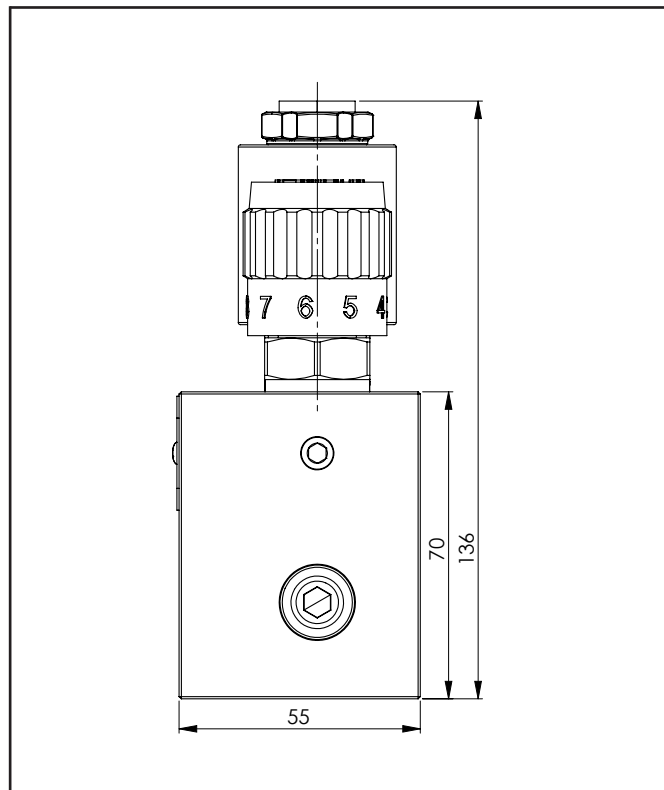
Integrated circuit for single acting cylinder with 2 way compensated flow regulator and relief valve 3/8" G

H97121

Technical data	
Max. pressure	250 bar
Max. flow from P to C	30 lpm
Max. flow from C to T	15 lpm
Weight	1,6 Kg
Manifold material	Aluminium
C / P / PM / T ports	3/8" G



Dimensions in mm



N°	Description	Q.ty
1	Bosch Rexroth relief valve VS-30 * depicted with screw adjustment	1
2	Connector DIN 43650 ISO 4400	1
3	Bosch Rexroth solenoid valve VEI-16-08A-NC OD.15.05.18-Y-000000 (normally closed) o VEI-16-08A-NA OD.15.06.18-Y-000000 (normally open) depicted without manual override *	1
4	Bosch Rexroth coil D36 CLASS H DIN 43650 ISO 4400 *	1
5	2 way compensated flow regulator (available also not compensated)	1
6	Ø 6,5 through hole for mounting	2
7	Ø 6,5 through hole for mounting with counterbore	4

* for complete technical information, click on the blue link or go to the components section at the end of the catalogue

Ordering code

H 9 7 1 2 1 A _ _ C Q - _ _ - _ _

Hydrover product

Product series
17 series - Inline valves

Product ID

Manifold material
Aluminium

Relief valve adjustment type *
Screw = S
Knob = K

Relief valve adjustment pressure range *
5-50 bar = 0
30-100 bar = 1
50-210 bar = 2
100-350 bar = 3

Flow regulator adjustment type
Calibrated knob

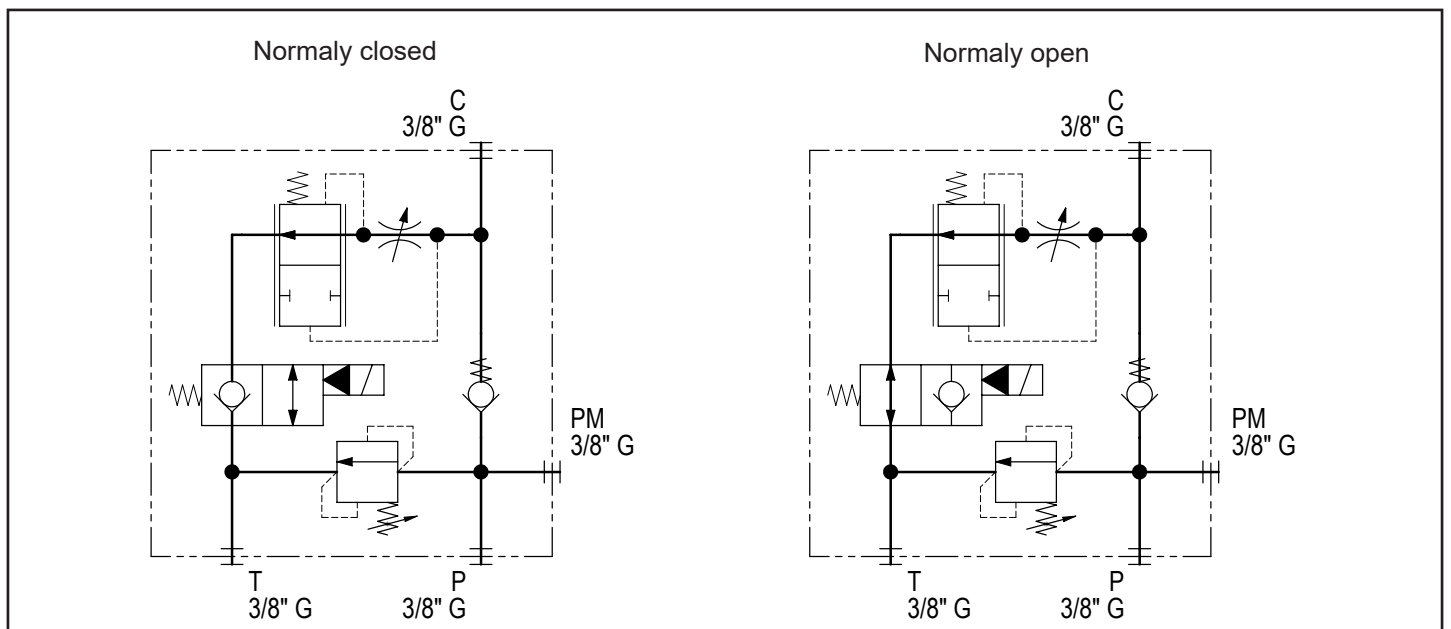
Solenoid valves coil connection *
1 = DIN 43650
ISO 4400

Solenoid valve coil voltage *
OB = 12V DC
OC = 24V DC
OD = 48V DC
OU = 110V RAC
AH = 230V RAC

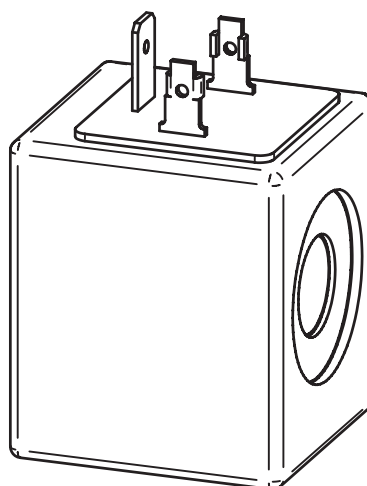
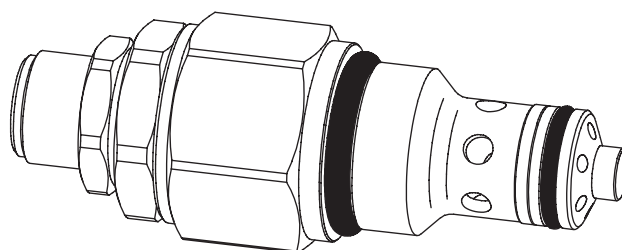
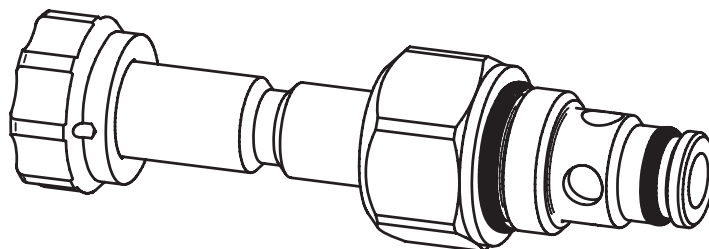
Solenoid valve manual override *
E0 = Without
EP = Push (NA)
EV = Screw (NC)
EG = Push and twist (NA)

Solenoid valve spool type *
NA = Normally open
NC = Normally closed

* Omit if not required. For example, to order the product without the solenoid cartridge valves, omit the coil connection, coil voltage, max. flow and manual override options: H97121AS2CQ.
The manifold will still be provided with the corresponding cavities.



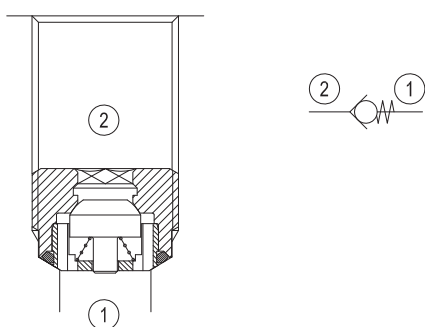
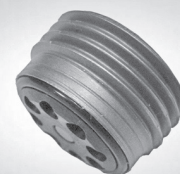
COMPONENTS



Insert type Check, poppet type

VUB1

0T.U3.01.00 - Y - Z

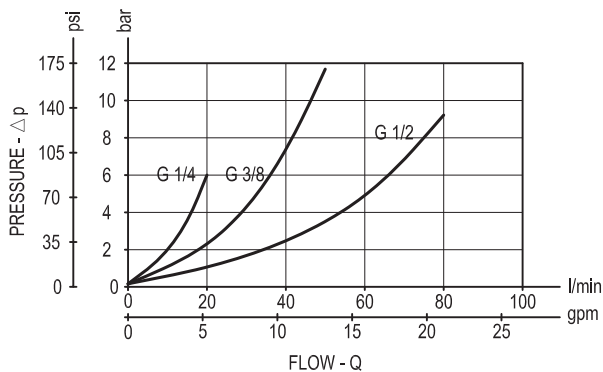


Description

When pressure at 2 rises above the spring bias pressure, the poppet is lifted and flow allowed from 2 to 1. The valve is closed (checked) from 1 to 2. Precision machining and hardening processes allow virtually leak-free performance in the checked condition.

Note: UNF and Metric versions available on request. Consult factory.

Performance

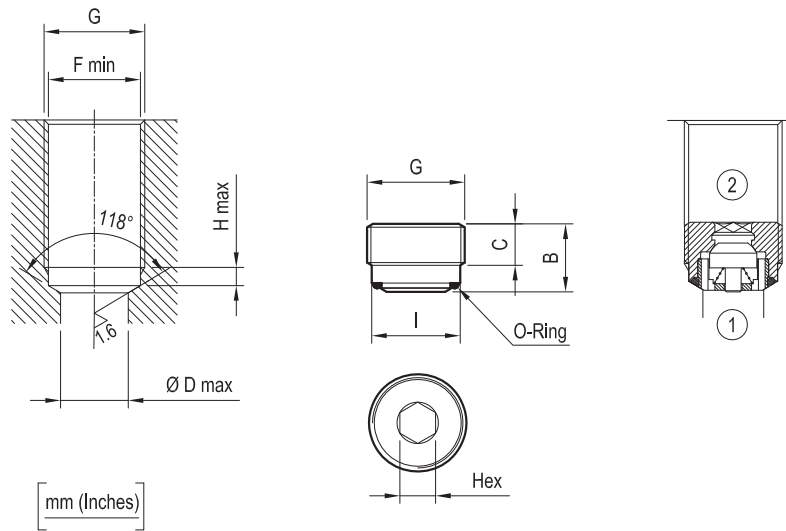


Technical data

Max. operating pressure	bar (psi)	350 (5000)
Max. flow	l/min. (gpm)	see "performance" graph
Max. internal leakage	drops/min.	5
Fluid temperature range	°C (°F)	-30 to 100 (-22 to 212)
Installation torque	Nm (ft-lbs)	see "Dimensions" table
Weight	kg (lbs)	see "Dimensions" table
Special cavity		see "Dimensions"
Seal kit (*)	code material no.	see "Dimensions" table
Fluids		Mineral-based or synthetics with lubricating properties at viscosities of 5 to 800 mm ² /s (cSt)
Filtration		Nominal value max. 10µm (NAS 8) ISO 4406 19/17/14
Other Technical Data		See data sheet RE 18350-50

(*) Only external seals for 10 valves

Dimensions



G	B	C	Hex.	D	I	F	O-Ring dimensions	O-Ring codes	H	Weight kg (lbs)	Inst. torque Nm (ft-lbs)	Flow max. l/min. (gpm)
G 1/4	10 (0.39)	6 (0.24)	6 (0.24)	7 (0.28)	11.5 (0.45)	11.6 (0.46)	Ø 9 x 1 (0.35x0.04)	RG09UB010000100 R931002410	3 (0.12)	0.005 (0.011)	15 (11)	20 (5)
G 3/8	11.5 (0.45)	7 (0.28)	6 (0.24)	9 (0.35)	14.95 (0.59)	15.1 (0.6)	Ø 11x1.5 (0.43x0.06)	RG02UB010000100 R931002408	3 (0.12)	0.015 (0.033)	20 (15)	50 (13)
G 1/2	13.5 (0.53)	8 (0.32)	8 (0.32)	12 (0.47)	18.7 (0.74)	18.8 (0.74)	Ø 14x1.5 (0.55x0.06)	RG03UB020000100 R931002409	3 (0.12)	0.020 (0.044)	20 (15)	80 (21)

Ordering code

0T.U3.01.00	Y	Z	*
--------------------	----------	----------	----------

Insert type - Check, poppet type

Series 0/A to L
unchanged performances and dimensions

Port sizes

= 09 G 1/4

= 02 G 3/8

= 03 G 1/2

SPRINGS

Cracking pressure bar (psi)

= 00

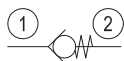
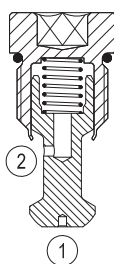
< 0.5 (7)

Insert type Check, poppet type

Special cavity, 808

VUM1.060

0T.U6.02.00.99 - Z



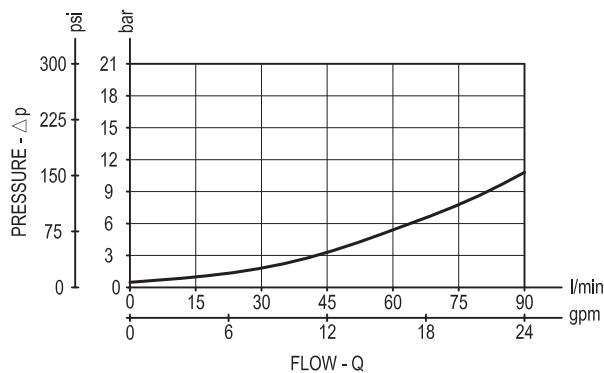
Description

When pressure at 1 rises above the spring bias pressure, the poppet is lifted and flow allowed from 1 to 2. The valve is closed (checked) from 2 to 1. Precision machining and hardening processes allow virtually leak-free performance in the checked condition.

Note: to obtain a good leak proof performance coin the cavity seat using a loose valve poppet (P/N 0F.S2.014) as a coining tool.

Impact energy: 5 ± 2 Nm.

Performance

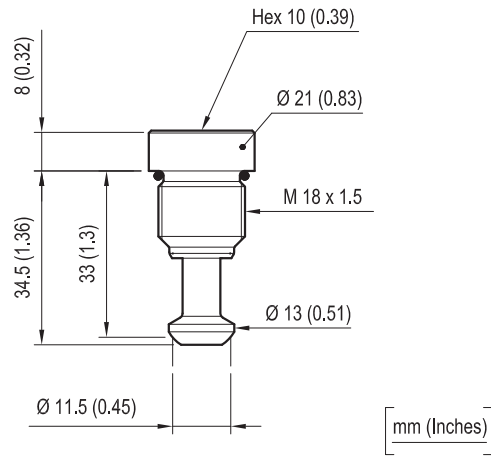


Technical data

Max. operating pressure	bar (psi)	380 (5500)
Max. flow	l/min. (gpm)	90 (24)
Max. internal leakage	drops/min.	5
Fluid temperature range	°C (°F)	-30 to 100 (-22 to 212)
Installation torque	Nm (ft-lbs)	35-40 (26-30)
Weight	kg (lbs)	0.06 (0.13)
Special cavity		808
Seal kit (*)	code material no.	RG0730020000100 R931002406
Fluids		Mineral-based or synthetics with lubricating properties at viscosities of 5 to 800 mm ² /s (cSt)
Filtration		Nominal value max. 10µm (NAS 8) ISO 4406 19/17/14
Installation		No restrictions
Other Technical Data		See data sheet RE 18350-50

(*) Only external seals for 10 valves

Dimensions



Ordering code

0T.U6.02.00.99	Z	*
----------------	---	---

Insert type - Check, poppet type

Series 0/A to L
unchanged performances and dimensions

Special cavity, 808

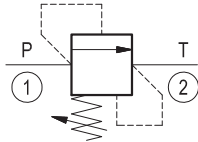
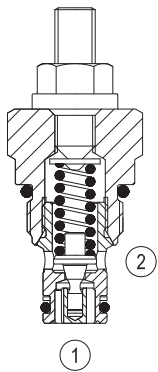
SPRINGS	
Cracking pressure bar (psi)	
= 00	0.5 (7)

Relief, direct acting guided poppet type

Common cavity, Size 08

VSBN-08A

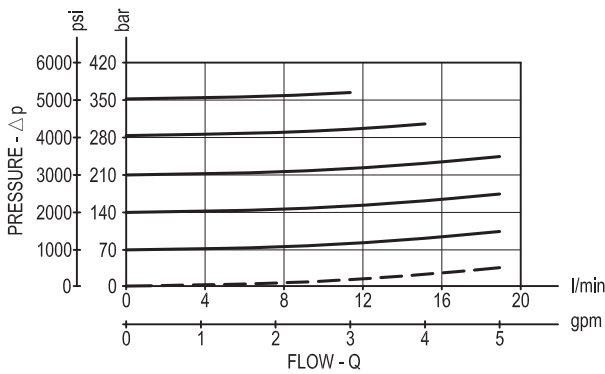
04.11.49 - X - 56 - Z



Description

Flow is blocked from 1 to 2 until pressure increases to meet the selected valve setting, lifting the poppet from its seat and allowing relief flow through port 2 to tank. Pressure at port 2 is additive to the relief setting of the valve. The unique Bosch Rexroth Oil Control poppet design provides enhanced stability at all flows and pressures.

Performance



Technical data

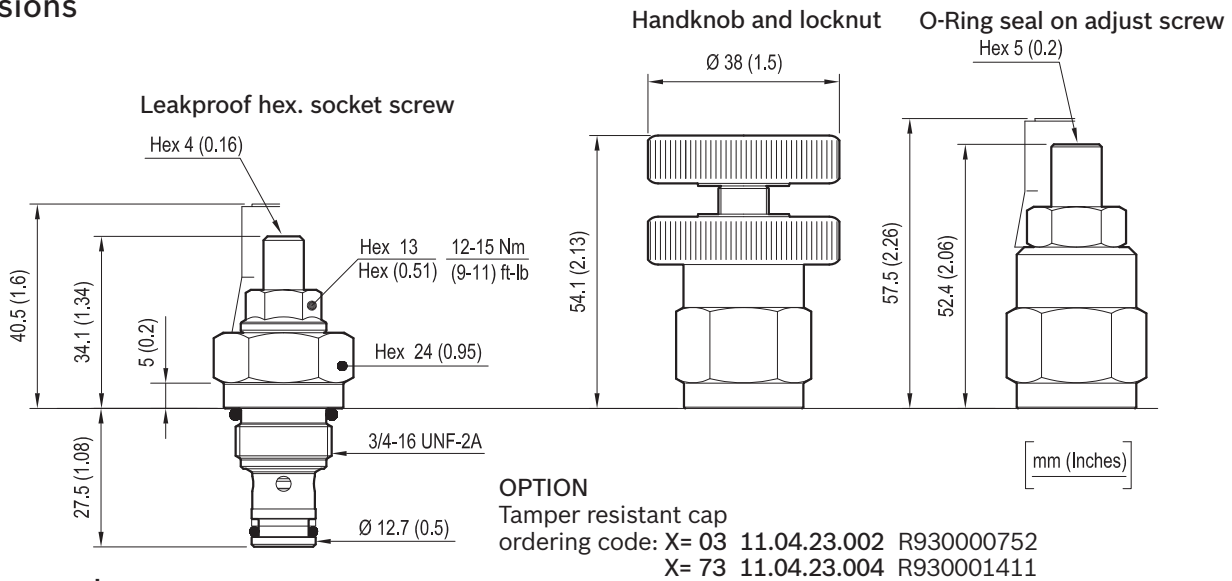
Max. operating pressure port 1 (P)	bar (psi)	350 (5000)
Max. pressure admitted port 2 (T)	bar (psi)	140 (2000)
Max. flow	l/min. (gpm)	20 (5.3)
Max. internal leakage (*)	drops/min.	15
Fluid temperature range	°C (°F)	-30 to 100 (-22 to 212)
Installation torque	Nm (ft-lbs)	34-41 (25-30)
Weight (**)	kg (lbs)	0.09 (0.2)
Cavity		CA-08A-2N see data sheet RE 18325-70
Seal kit (***)	code material no.	RG08A2010520100 R901101437
Fluids		Mineral-based or synthetics with lubricating properties at viscosities of 10 to 500 mm ² /s (cSt)
Filtration		Nominal value max. 10µm (NAS 8) ISO 4406 19/17/14
Installation		No restrictions
Other general technical data		See data sheet RE 18350-50

(*) Max. to 80% of nominal setting

(**) Standard version X=03 type

(***) Only external seals for 10 valves

Dimensions



Ordering code

04.11.49	X	56	Z	00	*
----------	---	----	---	----	---

Series 0/A to L
 unchanged performances and dimensions

Version and options standard

Relief, direct acting guided poppet type

Adjustments

- = 03 Leakproof hex.socket screw
- = 04 Handknob and locknut
- = 73 O-Ring seal on adjust screw

Common cavity, size 08

		SPRINGS		
		Adj. pressure range bar (psi)	Pres. increase bar/turn (psi/turn)	Std. setting bar (psi) Q=5 l/min
for X=03	= 05	10-70 (*) (145-1000)	26 (375)	50 (725)
	= 10	35-140 (500-2000)	50 (725)	100 (1450)
	= 20	105-210 (1500-3000)	79 (1145)	200 (2900)
	= 35	175-350 (2500-5000)	170 (2465)	350 (5000)
for X=04	= 35	35-350 (500-5000)	72 (1044)	200 (2900)
for X=73	= 35	35-350 (500-5000)	72 (1044)	200 (2900)

Note: Special settings available. Contact factory authorized representative for ordering code
 (*) minimum pressure setting intended with Q=5 l/min (1.3 gpm)

Relief, direct acting guided poppet type
Special cavity, 008

VS-30

04.11.18 - X - 99 - Z

RE 18318-23

Edition: 03.2016

Replaces: 07.2010



Description

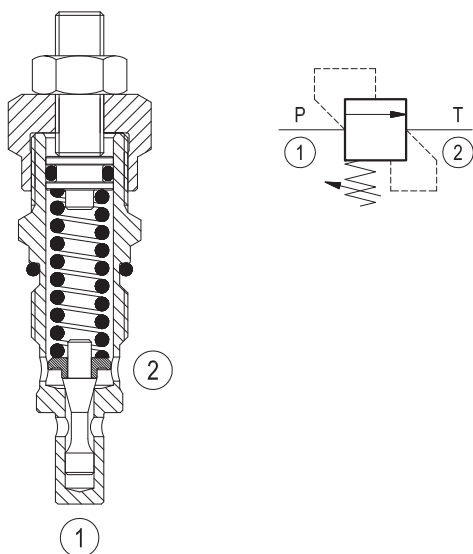
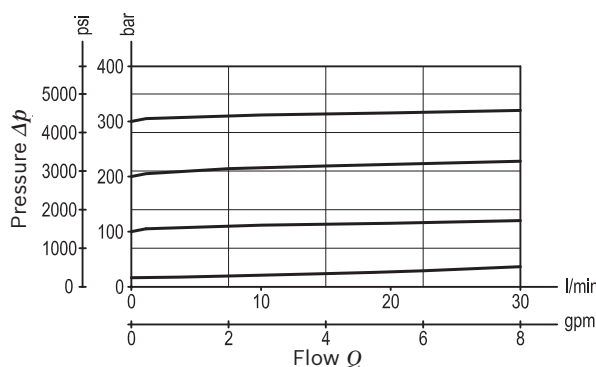
Flow is blocked from 1 to 2 until pressure increases to meet the selected valve setting, lifting the poppet from its seat and allowing relief flow through port 2 to tank. Pressure at port 2 is additive to the relief setting of the valve. The unique Bosch Rexroth Oil Control poppet design provides enhanced stability at all flows and pressures.

Technical data

Max. operating pressure port 1 (P)	350 bar (5000 psi)
Max. pressure admitted port 2 (T)	140 bar (2000 psi)
Max. flow	30 l/min (8 gpm)
Max. internal leakage ¹⁾	15 drops/min.
Fluid temperature range	-30 to 100 °C (-22 to 212 °F)
Installation torque	45 - 50 Nm (33 - 37 ft-lbs)
Weight ²⁾	0.17 kg (0.38 lbs)
Special cavity	008 (see data sheet 18325-75)
Lines bodies and standard assemblies	Please refer to section "Hydraulic integrated circuit" or consult factory
Seal kit ³⁾	Code: RG0008010000100 material no: R930001692
Fluids	Mineral-based or synthetics with lubricating properties at viscosities of 10 to 500 mm ² /s (cSt)
Recommended degree of fluid contamination	Nominal value max. 10µm (NAS 8) / ISO 4406 19/17/14
Installation position	No restrictions
Other Technical Data	See data sheet 18350-50

- 1) At 80% of pressure setting
- 2) Standard version 03 type
- 3) Only external seals for 10 valves

Characteristic curve



Ordering code

04.11.18	X	99	Z	00	*
-----------------	----------	-----------	----------	-----------	----------

Series 0/A to L
unchanged performances and dimensions

Relief, direct acting guided poppet type

Version and options standard

Adjustments

- 03** Leakproof hex. socket screw
- 04** Handknob and locknut

99 Special cavity, 008

SPRINGS

	Adj. press. range bar (psi)	Pressure increase bar/turn (psi/turn)	Std. setting bar (psi) Q=5 l/min
05	* 5-50 (75-725)	12 (174)	50 (725)
10	30-100 (435-1450)	24 (348)	100 (1450)
20	50-210 (725-3000)	47 (682)	200 (2900)
35	100-350 (1450-5000)	82 (1189)	350 (5000)

Note: Special settings available. Contact factory authorized representative for ordering code.

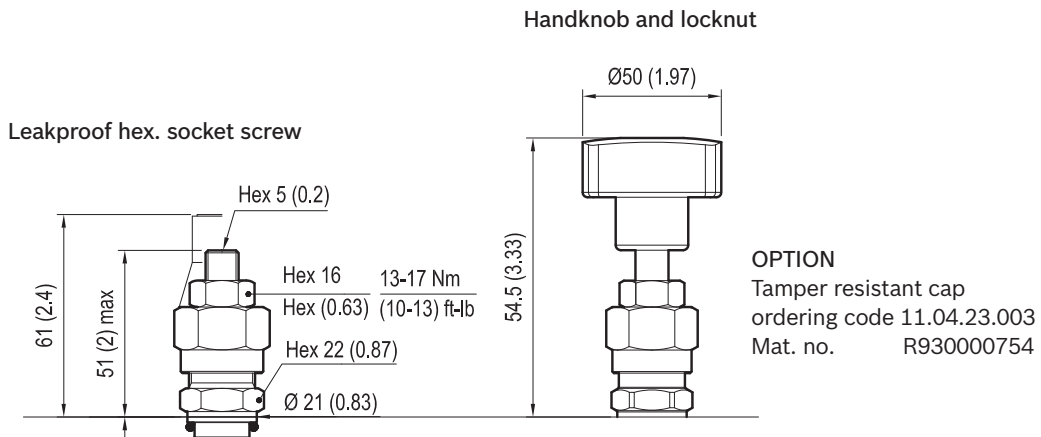
* minimum pressure setting intended with Q=5 l/min

Preferred types

Type	Material number
041118039905000	R901113613
041118039910000	R901113614
041118039920000	R901226876
041118039935000	R901113617

Type	Material number
041118049905000	R930000148
041118049910000	R930000149
041118049920000	R901127942
041118049935000	R930000151

Dimensions

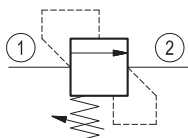
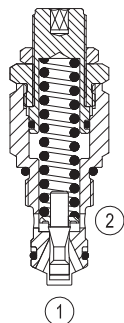


Relief, direct acting guided poppet type

Special cavity, Size 019-E

VMD1.025

OT.M1.02 - X - 99 - Z



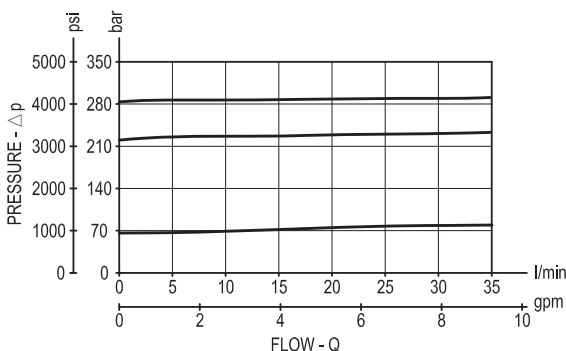
Description

Flow is blocked from 1 to 2 until pressure increases to meet the selected valve setting, lifting the poppet from its seat and allowing relief flow through port 2 to tank. Pressure at port 2 is additive to the relief setting of the valve. The unique Bosch Rexroth Oil Control poppet design provides enhanced stability at all flows and pressures.

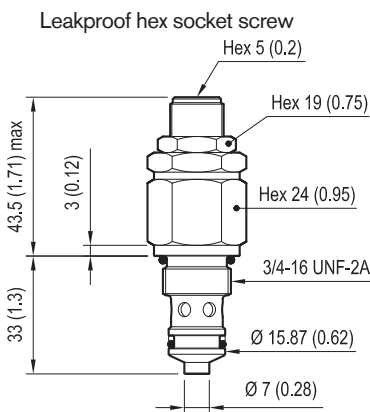
Technical data

Max pressure	bar (psi)	350 (5000)
Max flow	l/min (gpm)	35 (9)
Installation torque	Nm (ft-lb)	40-45 (30-33)
Special Cavity		019-E
Weight	kg (lbs)	0.13 (0.29)
Fluid temperature range	°C (°F)	between -30 (-22) and +100 (+212)

Performance



Dimensions



Ordering code

OT.M1.02 X 99 Z

Relief, direct acting guided poppet type

Adjustments

= 03 Leakproof hex. socket screw

Special cavity Size 019-E

SPRINGS

	Adj. press. range bar (psi)	Press. increase bar/turn (psi/turn)	Std. setting press. bar (psi) (Q=5 l/min)
= 10	25-120 (350-1750)	16.5 (239)	100 (1450)
= 20	40-200 (580-2900)	26.5 (384)	180 (2600)
= 35	200-350 (2900-5000)	51 (740)	350 (5000)

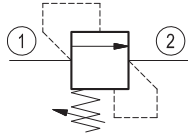
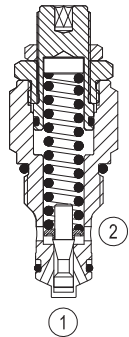
mm(Inches)

Relief, direct acting guided poppet type

Common cavity, Size 10

VMD1.040

OT.M1.03 - X - 99 - Z



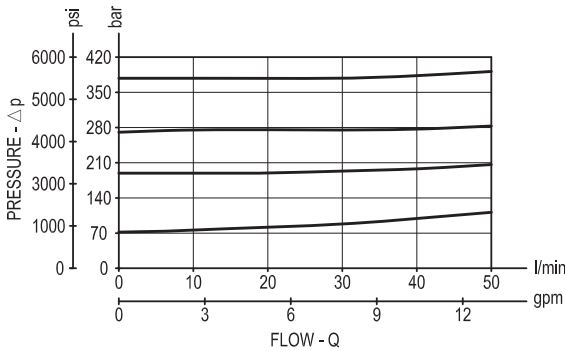
Description

Flow is blocked from 1 to 2 until pressure increases to meet the selected valve setting, lifting the poppet from its seat and allowing relief flow through port 2 to tank. Pressure at port 2 is additive to the relief setting of the valve. The unique Bosch Rexroth Oil Control poppet design provides enhanced stability at all flows and pressures.

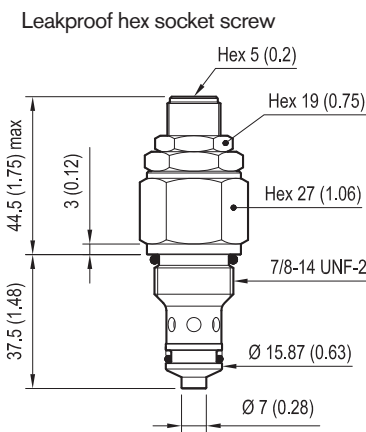
Technical data

Max pressure	bar (psi)	350 (5000)
Max flow	l/min (gpm)	50 (13)
Installation torque	Nm (ft-lb)	55-65 (41-48)
Cavity		CA-10A-2N
Weight	kg (lbs)	0.17 (0.38)
Fluid temperature range	°C (°F)	between -30 (-22) and +100 (+212)

Performance



Dimensions



Ordering code

OT.M1.03 X 99 Z

Relief, direct acting guided poppet type

Adjustments

= 03 Leakproof hex. socket screw

Common cavity Size 10

SPRINGS

	Adj. press. range bar (psi)	Press. increase bar/turn (psi/turn)	Std. setting press. bar (psi) (Q=5 l/min)
= 10	25-120 (350-1750)	16.5 (239)	100 (1450)
= 20	40-200 (580-2900)	26.5 (384)	180 (2600)
= 35	200-350 (2900-5000)	51 (740)	350 (5000)

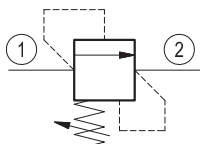
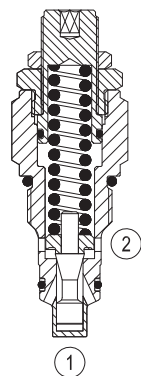
mm(Inches)

Relief, direct acting guided poppet type

Common cavity, Size 10

VMD1.070

OT.M1.04 - X - 99 - Z



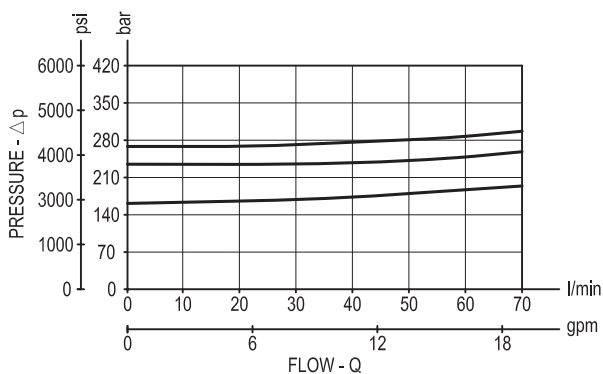
Description

Flow is blocked from 1 to 2 until pressure increases to meet the selected valve setting, lifting the poppet from its seat and allowing relief flow through port 2 to tank. Pressure at port 2 is additive to the relief setting of the valve. The unique Bosch Rexroth Oil Control poppet design provides enhanced stability at all flows and pressures.

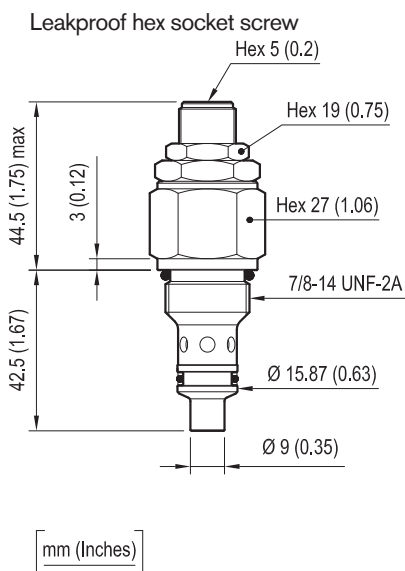
Technical data

Max pressure	bar (psi)	260 (3800)
Max flow	l/min (gpm)	70 (19)
Installation torque	Nm (ft-lb)	55-65 (41-48)
Cavity		CA-10A-2N
Weight	kg (lbs)	0.18 (0.4)
Fluid temperature range	°C (°F)	between -30 (-22) and +100 (212)

Performance



Dimensions



Ordering code

OT.M1.04 X 99 Z

Relief, direct acting guided poppet type

Adjustments
= 03 Leakproof hex. socket screw

Common cavity Size 10

	SPRINGS		
	Adj. press. range bar (psi)	Press. increase bar/turn (psi/turn)	Std. setting press. bar (psi) (Q=5 l/min)
= 05	10-60 (145-870)	10 (145)	50 (725)
= 10	40-110 (580-1600)	17 (247)	100 (1450)
= 20	110-220 (1600-3200)	31.5 (457)	200 (2900)
= 35	220-260 (3200-3800)	37 (537)	250 (3600)

Type	Material number
OTM104039905000	R901099575
OTM104039910000	R901099604
OTM104039920000	R901116269

Type	Material number
OTM104039935000	R901099642

Relief, direct acting guided
poppet type
Special cavity, 009

VS-80

04.11.05 - X - 99 - Z

RE 18318-25

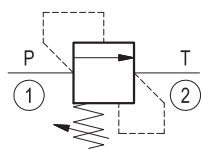
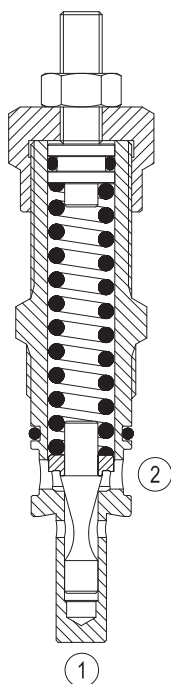
Edition: 01.2019

Replaces: 07.2018



Description

Flow is blocked from 1 to 2 until pressure increases to meet the selected valve setting, lifting the poppet from its seat and allowing relief flow through 2 to tank. Pressure at 2 is additive to the relief setting of the valve. The unique Bosch Rexroth Oil Control poppet design provides enhanced stability at all flows and pressures.

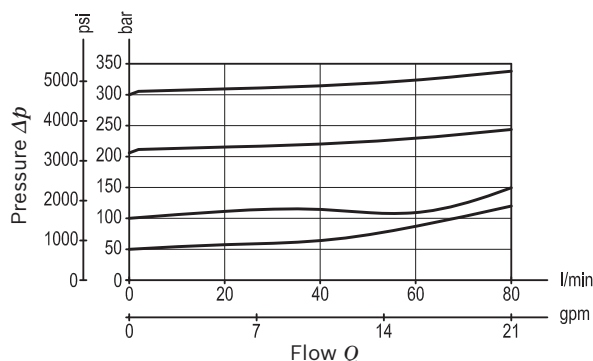


Technical data

Max. operating pressure port 1 (P)	350 bar (5000 psi)
Max. pressure admitted port 2 (T)	140 bar (2000 psi)
Max. flow	80 l/min (21 gpm)
Max. internal leakage ¹⁾	15 drops/min.
Fluid temperature range	-30 to 100 °C (-22 to 212 °F)
Installation torque	83 - 92 Nm (61 - 68 ft-lbs)
Weight	0.35 kg (0.77 lbs)
MTTFD	150 years see RE 18350-51
Special cavity	009 (see data sheet 18325-75)
Lines bodies and standard assemblies	Please refer to section "Hydraulic integrated circuit" or consult factory
Seal kit ²⁾	Code: RG0009010000100 material no: R930001694
Fluids	Mineral-based or synthetics with lubricating properties at viscosities of 10 to 500 mm ² /s (cSt)
Recommended degree of fluid contamination	Nominal value max. 10µm (NAS 8) / ISO 4406 20/18/15
Installation position	No restrictions
Other Technical Data	See data sheet 18350-50

- 1) At 80% of pressure setting
- 2) Only external seals for 10 valves

Characteristic curve



Ordering code

04.11.05	X	99	Z	00	*
-----------------	----------	-----------	----------	-----------	----------

Series O/A to L
unchanged performances and dimensions

Version and options standard

Relief, direct acting guided poppet type

Adjustments

- 03** Leakproof hex. socket screw
- 04** Handknob and locknut

99 Special cavity, 009

SPRINGS

	Adj. press. range bar (psi)	Pressure increase bar/turn (psi/turn)	Std. setting bar (psi) Q=5 l/min
05	* 5-50 (75-725)	6 (87)	50 (725)
10	30-100 (435-1450)	12 (174)	100 (1450)
20	80-250 (1160-3600)	27 (392)	200 (2900)
35	140-350 (2000-5000)	62 (899)	350 (5000)

Note: Special settings available. Contact factory authorized representative for ordering code.

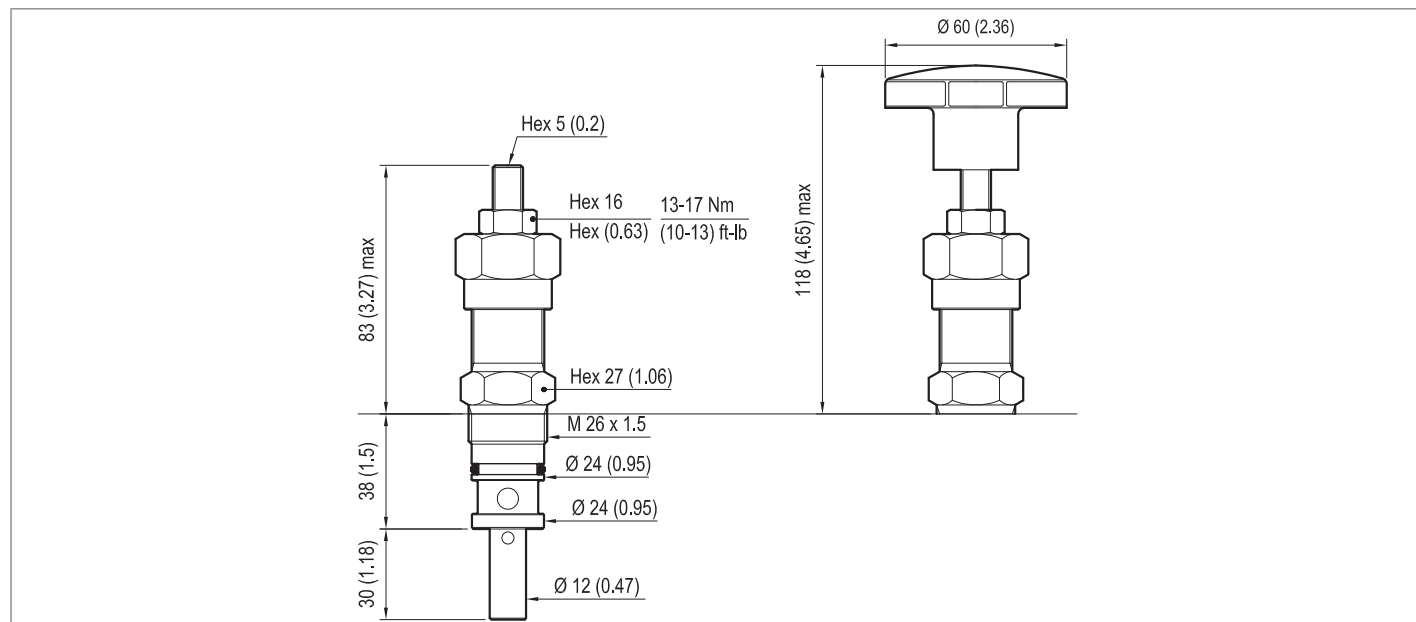
* minimum pressure setting intended with Q=5 l/min

Preferred types

Type	Material number
041105039905000	R930000117
041105039910000	R930000119
041105039920000	R901113620
041105049910000	R930000121

Type	Material number
041105049920000	R930000122
041105039935000	R930008396

Dimensions



Relief, pilot operated spool type

Common cavity, Size 10

VSPN-10A

04.12.08 - X - 85 - Z

RE 18318-08

Edition: 03.2016

Replaces: 11.2015



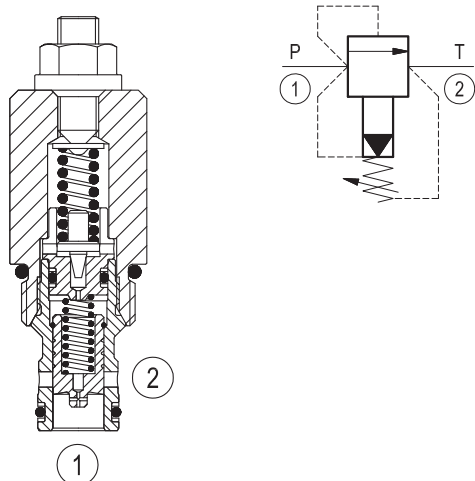
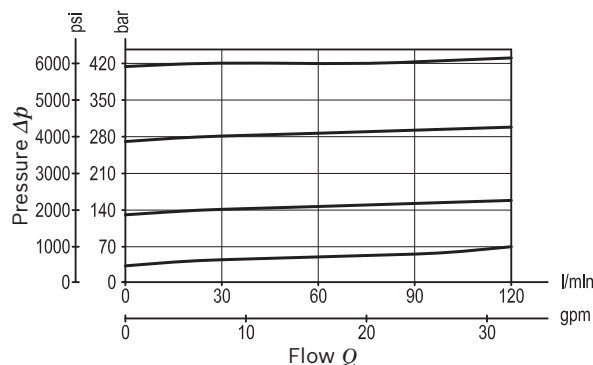
Description

Flow is blocked from 1 to 2 until pressure increases to meet the selected valve setting, lifting the conical, pilot-stage poppet from its seat. This action exhausts oil above the main-stage piston (spool type), allowing it to shift and provide relief flow through 2 to tank. Pressure at 2 is additive to the relief setting of the valve.

Technical data	
Max. operating pressure port 1 (P)	420 bar (6000 psi)
Max. pressure admitted port 2 (T)	350 bar (5000 psi) for version 03 210 bar (3000 psi) for version 04
Flow range	3 - 120 l/min (1 - 32 gpm)
Max. internal leakage ¹⁾	200 cm ³ /min. (12 cu.in./min.)
Fluid temperature range	-30 to 100 °C (-22 to 212 °F)
Installation torque	41 - 47 Nm (30 - 35 ft-lbs)
Weight ²⁾	0.21 kg (0.46 lbs)
Cavity	CA-10A-2N (see data sheet 18325-70)
Lines bodies and standard assemblies	Please refer to section "Hydraulic integrated circuit" or consult factory
MTTFd	150 years see data sheet 18350-51
Seal kit ³⁾	Code: RG10A2010530100 material no: R901111366
Fluids	Mineral-based or synthetics with lubricating properties at viscosities of 10 to 500 mm ² /s (cSt)
Recommended degree of fluid contamination	Nominal value max. 10µm (NAS 8) / ISO 4406 19/17/14
Installation position	No restrictions
Other Technical Data	See data sheet 18350-50

- 1) Measured at 200 bar (2900 psi)
- 2) Standard version X=03 type
- 3) Only external seals for 10 valves

Characteristic curve



Ordering code

04.12.08	X	85	Z	00	*
-----------------	----------	-----------	----------	-----------	----------

Series 0/A to L
unchanged performances and dimensions

Version and options standard

Relief, pilot operated spool type

Adjustments

03 Leakproof hex. socket screw

04 Handknob and locknut

85 Common cavity, Size 10

SPRINGS

		Adj. press. range bar (psi)	Pressure increase bar/turn (psi/turn)	Std. setting bar (psi) Q=5 l/min
for X= 03	10	35-140 (500-2000)	48 (696)	100 (1450)
	20	70-280 (1000-4000)	88 (1276)	200 (2900)
	35	140-420 (2000-6000)	140 (2030)	350 (5000)
for X= 04	35	35-350 (500-5000)	68 (986)	350 (5000)

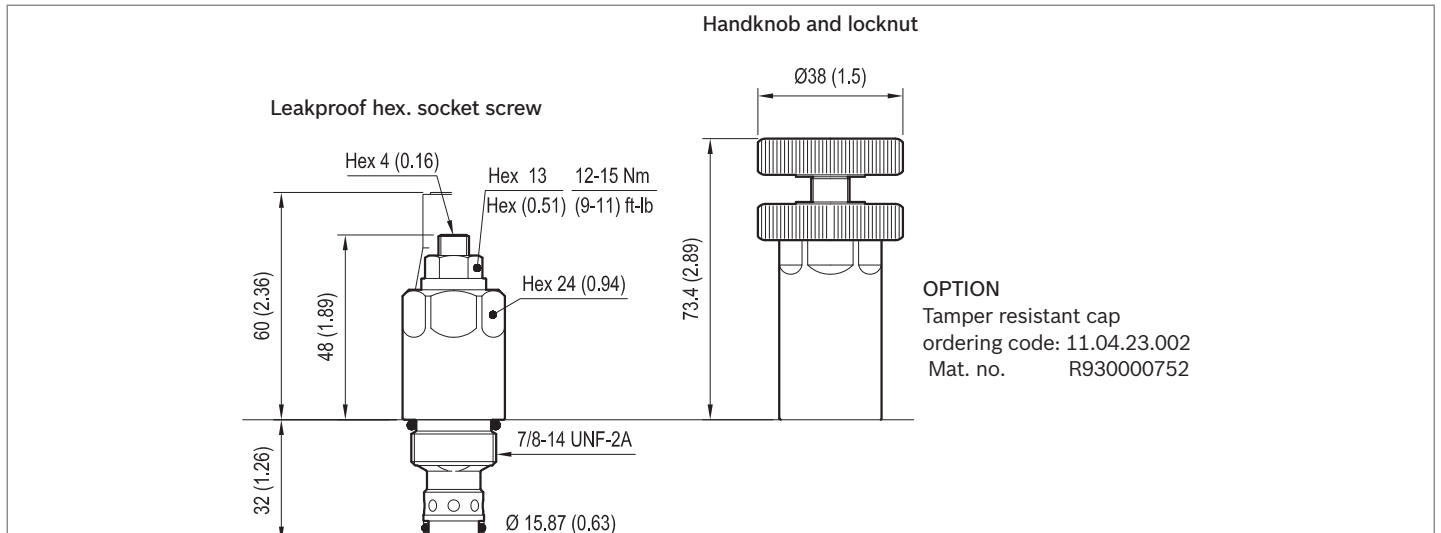
Note: Special settings available. Contact factory authorized representative for ordering code.

Preferred types

Type	Material number
041208038510000	R901097726
041208038520000	R901097722
041208038535000	R901104103
041208048535000	R901104104

Type	Material number

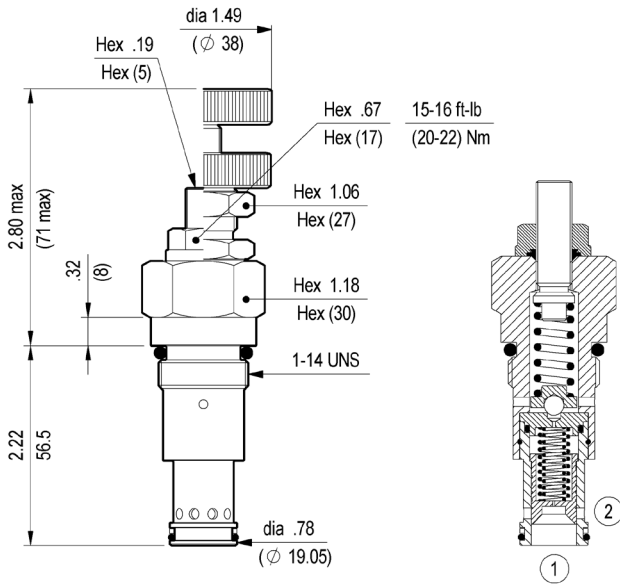
Dimensions



**RELIEF, PILOT OPERATED SPOOL TYPE
SPECIAL CAVITY**

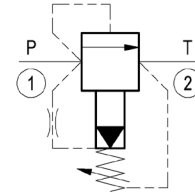
VSP-150

04.12.04 - X - 99 - Z



Inches
(mm)

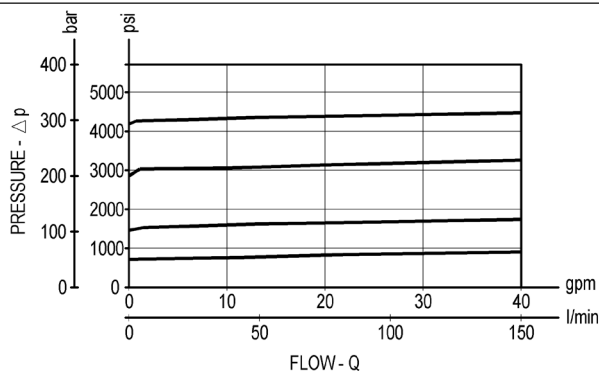
Flow is blocked from 1 to 2 until pressure increases to meet the selected valve setting, lifting the pilot-stage ball check from its seat. This action exhausts oil above the main-stage piston (spool type), allowing it to shift and provide relief flow through 2 to tank. Pressure at 2 is additive to the relief setting of the valve.



TECHNICAL DATA

Max. pressure:	6000 psi	(420 bar)
Max. flow:	40 gpm	(150 l/min)
Leakage at max relief setting ave. :	0.03 gpm	(0.10 l/min)
Special cavity :	065 (see page CT.S.002.U)	
Installation torque :	89-98 ft-lb	(121-133 Nm)
Weight:	0.617 lbs	(0.280 Kg)

Note: suitable for application where "T" line pressure never exceeds "P" line pressure.



X ADJUSTMENTS

03	Leakproof hex. socket screw	
04	Handknob and locknut	

SPRINGS

Z	Adj. press. range psi (bar)	Press. increase psi / turn (bar/turn)	Standard setting psi (bar) (Q=5 l/min)
05	44-1000 (3-70)	290 (20)	725 (50)
10	100-1500 (7-105)	377 (26)	1450 (100)
20	145-3000 (10-210)	508 (35)	2900 (200)
40	500-6000 (35-420)	1668 (115)	5075 (350)

OPTIONS

Ordering code	Description
11.04.23.004	 Tamper resistant cap

Special settings available. Contact factory authorized representative for ordering code.

Pressure relief pilot operated poppet type
and anti-cavitation valve
Special cavity, FC

VMR2-22-FC

VMR2.240.NG

RE 18318-37

Edition: 06.2017

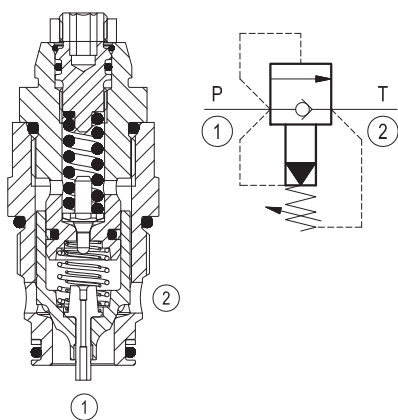
Replaces: 11.2016



Description

Flow is blocked from 1 to 2 until pressure increases to meet the selected valve setting, lifting the conical, pilot-stage poppet from its seat. This action exhausts oil above the main-stage poppet (low-leakage, seat type), allowing it to shift and provide relief flow through 2 to tank. Pressure at 2 is additive to the relief setting of the valve.

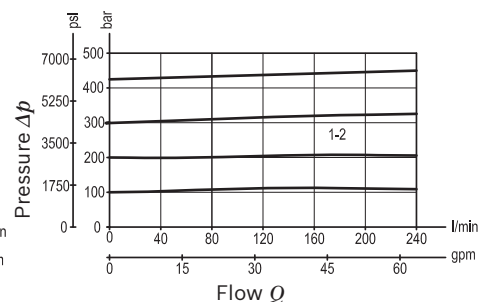
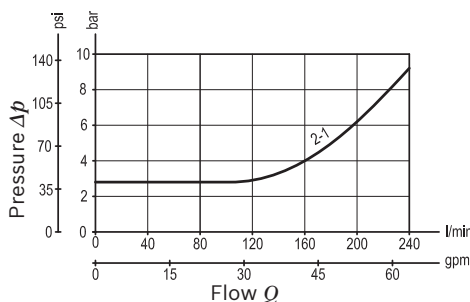
The anti-cavitation function makes up for lacking oil volumes caused, for example, by leakage when pressure valves respond or in the case of leading loads. If the pressure at main port 1 is lower than the one at main port 2, the spool will be lifted out of its seat. Hydraulic fluid flows from main port 2 to main port 1.



Technical data	
Max. operating pressure port 1 (P)	420 bar (6000 psi)
Max. pressure admitted port 2 (T)	50 bar (725 psi)
Max. flow	240 l/min (63 gpm)
Max. internal leakage ¹⁾	45 drops/min.
Fluid temperature range	-30 to 100 °C (-22 to 212 °F) (Buna N) -20 to 120 °C (-4 to 248 °F) (Viton)
Installation torque ²⁾	100 Nm (74 ft-lbs)
Weight	0.24 kg (0.53 lbs)
MTTFd	150 years see RE 18350-51
Special cavity	FC (see data sheet 18325-75)
Lines bodies and standard assemblies	Please refer to section "Hydraulic integrated circuit" or consult factory
Seal kit (Viton)	Code: RG22R2040520100 material no: R930052887
Fluids	Mineral-based or synthetics with lubricating properties at viscosities of 10 to 380 mm ² /s (cSt)
Recommended degree of fluid contamination	Nominal value max. 10µm (NAS 9) / ISO 4406 20/18/15
Installation position	No restrictions
Other Technical Data	See data sheet 18350-50
Without surface protection	In case of need of surface protection, please consult factory.

- 1) At 80% of pressure setting.
- 2) Torque value valid for installation in cast iron and steel manifolds. In case of different body materials, please consult factory.

Characteristic curve



2 **VMR2-22-FC** | Pressure relief pilot operated poppet type, and anti-cavitation valve

Dimensions [mm (inches)]

Ordering code

VMR2.240.NG	*
--------------------	----------

Pressure relief pilot operated poppet type and anti-cavitation valve

	SPRINGS		O-RING
	Adj. press. range bar (psi)	Pressure increase bar/turn (psi/turn)	Material
000	100-420 (1450-6090)	300 (4350)	Buna N (NBR)
010	100-420 (1450-6090)	300 (4350)	Viton (FKM)

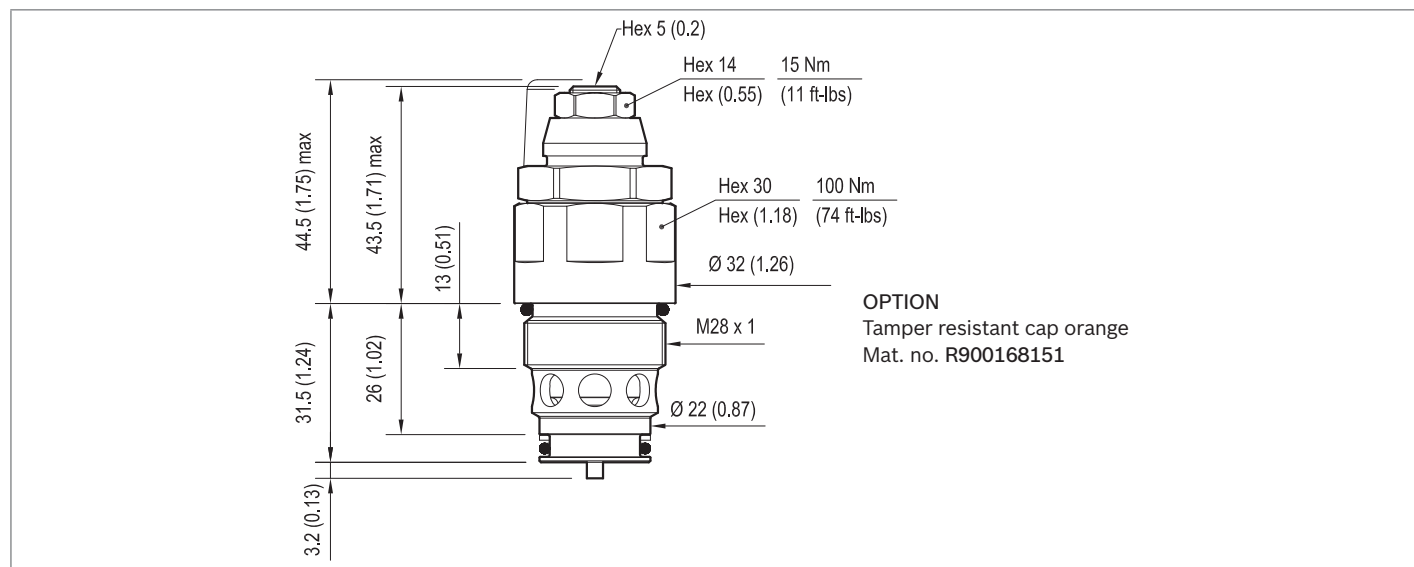
* Valves are delivered set at pressure setting <25 bar and with adjustment device not tighten. Fine setting to be done by customer. For case of request of factory set valve, please consult factory.

Preferred types

Type	Material number
VMR2.240.NG.000	R930057206
VMR2.240.NG.010	R930052892

Type	Material number

Dimensions

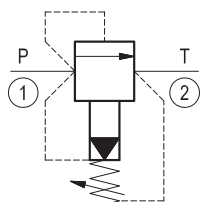
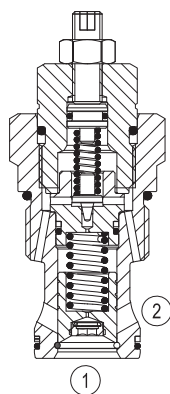


Relief, pilot operated spool type

Common cavity, Size 16

VSPN-16A

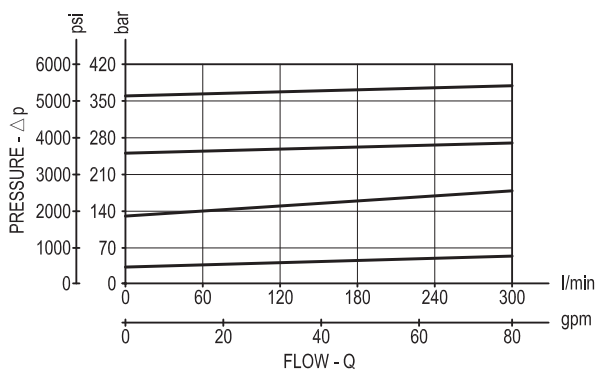
04.12.11 - X - 27 - Z



Description

Flow is blocked from 1 to 2 until pressure increases to meet the selected valve setting, lifting the conical, pilot-stage poppet from its seat. This action exhausts oil above the main-stage piston (spool type), allowing it to shift and provide relief flow through 2 to tank. Pressure at 2 is additive to the relief setting of the valve. Pilot operation is protected from contamination by a filter screen at the bottom of the main piston.

Performance



Technical data

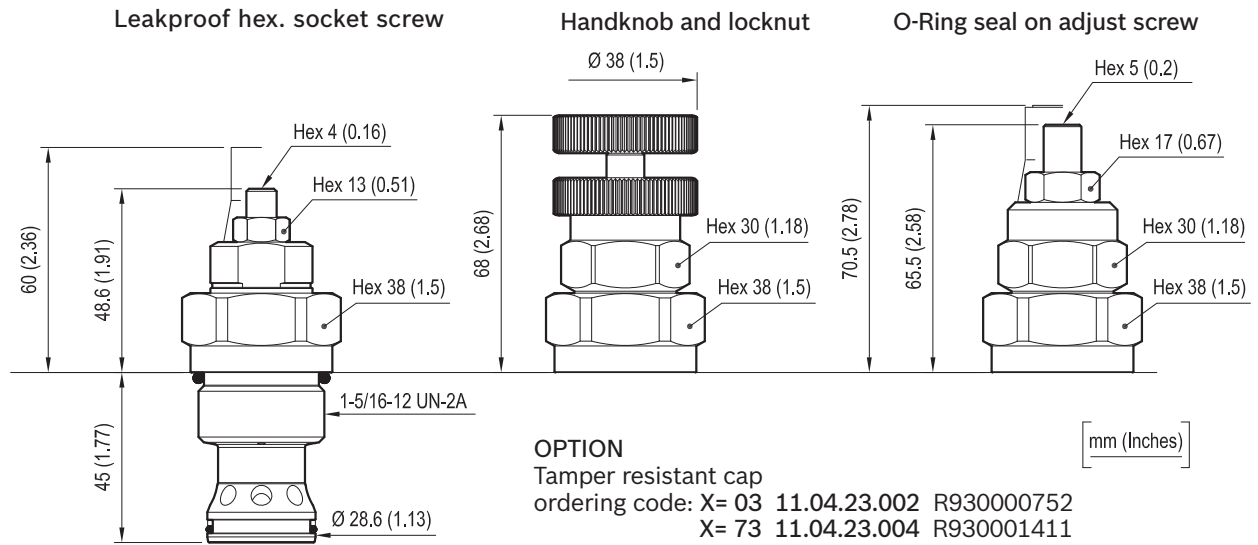
Max. operating pressure port 1 (P)	bar (psi)	420 (6000)
Max. pressure admitted port 2 (T)	bar (psi)	140 (2000)
Flow range	l/min. (gpm)	8-300 (2-79)
Max. internal leakage (*)	cm ³ /min. (cu.in./min.)	350 (21)
Fluid temperature range	°C (°F)	-30 to 100 (-22 to 212)
Installation torque	Nm (ft-lbs)	108-122 (80-90)
Weight (**)	kg (lbs)	0.45 (0.99)
Cavity		CA-16A-2N see data sheet RE 18325-70
Seal kit (***)	code material no.	RG16A2010520100 R901111386
Fluids		Mineral-based or synthetics with lubricating properties at viscosities of 10 to 500 mm ² /s (cSt)
Filtration		Nominal value max. 10µm (NAS 8) ISO 4406 19/17/14
Installation		No restrictions
Other general technical data		See data sheet RE 18350-50

(*) Measured at 200 bar (2900 psi)

(**) Standard version X=03 type

(***) Only external seals for 10 valves

Dimensions



Ordering code

04.12.11	X	27	Z	00	*
----------	---	----	---	----	---

Relief, pilot operated spool type

Adjustments

- = 03 Leakproof hex. socket screw
- = 04 Handknob and locknut
- = 73 O-Ring seal on adjust screw

Common cavity, Size 16

Series 0/A to L
unchanged performances and dimensions

Version and options standard

		SPRINGS		
		Adj. pressure range bar (psi)	Pres. increase bar/turn (psi/turn)	Std. setting bar (psi) Q=5 l/min
for X=03	= 10	35-140 (500-2000)	48 (696)	100 (1450)
	= 20	70-280 (1000-4000)	88 (1276)	200 (2900)
	= 35	140-420 (2000-6000)	140 (2030)	350 (5000)
for X=04	= 35	35-350 (500-5000)	66 (957)	350 (5000)
for X=73	= 35	35-350 (500-5000)	66 (957)	350 (5000)

Note: Special settings available. Contact factory authorized representative for ordering code

Relief, direct acting poppet type
pressure compensated
Special cavity, 008

VS-30-CC

04.11.27 - X - 99 - Z

RE 18318-26

Edition: 03.2016

Replaces: 07.2012



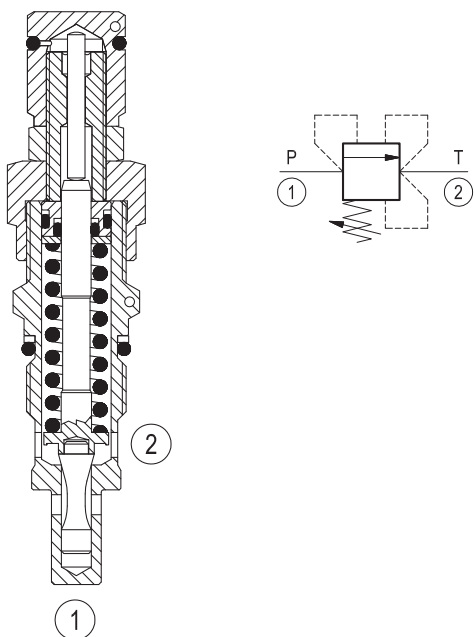
Description

Flow is blocked from 1 to 2 until pressure increases to meet the selected valve setting, lifting the poppet from its seat and allowing relief flow through 2 to tank. The valve applies a balanced piston design allowing consistent relief operation at the valve setting independent of back-pressure at 2. The unique Bosch Rexroth Oil Control poppet design provides enhanced stability at all flows and pressures.

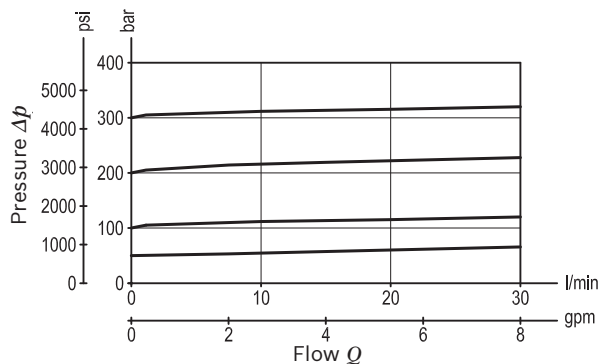
Technical data

Max. operating pressure	350 bar (5000 psi)
Max. flow	30 l/min (8 gpm)
Max. internal leakage ¹⁾	15 drops/min.
Fluid temperature range	-30 to 100 °C (-22 to 212 °F)
Installation torque	46 - 51 Nm (34 - 38 ft-lbs)
Weight	0.17 kg (0.38 lbs)
Special cavity	008 (see data sheet 18325-75)
Lines bodies and standard assemblies	Please refer to section "Hydraulic integrated circuit" or consult factory
Seal kit ²⁾	Code: RG0008010520100 material no: R930001693
Fluids	Mineral-based or synthetics with lubricating properties at viscosities of 10 to 500 mm ² /s (cSt)
Recommended degree of fluid contamination	Nominal value max. 10µm (NAS 8) / ISO 4406 19/17/14
Installation position	No restrictions
Other Technical Data	See data sheet 18350-50

- 1) At 80% of pressure setting
- 2) Only external seals for 10 valves



Characteristic curve



Ordering code

04.11.27	X	99	Z	00	*
----------	---	----	---	----	---

Series 0/A to L
unchanged performances and dimensions

Relief, direct acting poppet type
pressure compensated

Version and options standard

Adjustments

03 Leakproof hex. socket screw

99 Special cavity, 008

SPRINGS

	Adj. press. range bar (psi)	Pressure increase bar/turn (psi/turn)	Std. setting bar (psi) Q=5 l/min
05	* 5-50 (75-725)	11 (160)	50 (725)
10	30-100 (435-1450)	23 (334)	100 (1450)
20	50-210 (725-3000)	47 (682)	200 (2900)
35	100-350 (1450-5000)	82 (1189)	350 (5000)

Note: Special settings available. Contact factory authorized representative for ordering code.

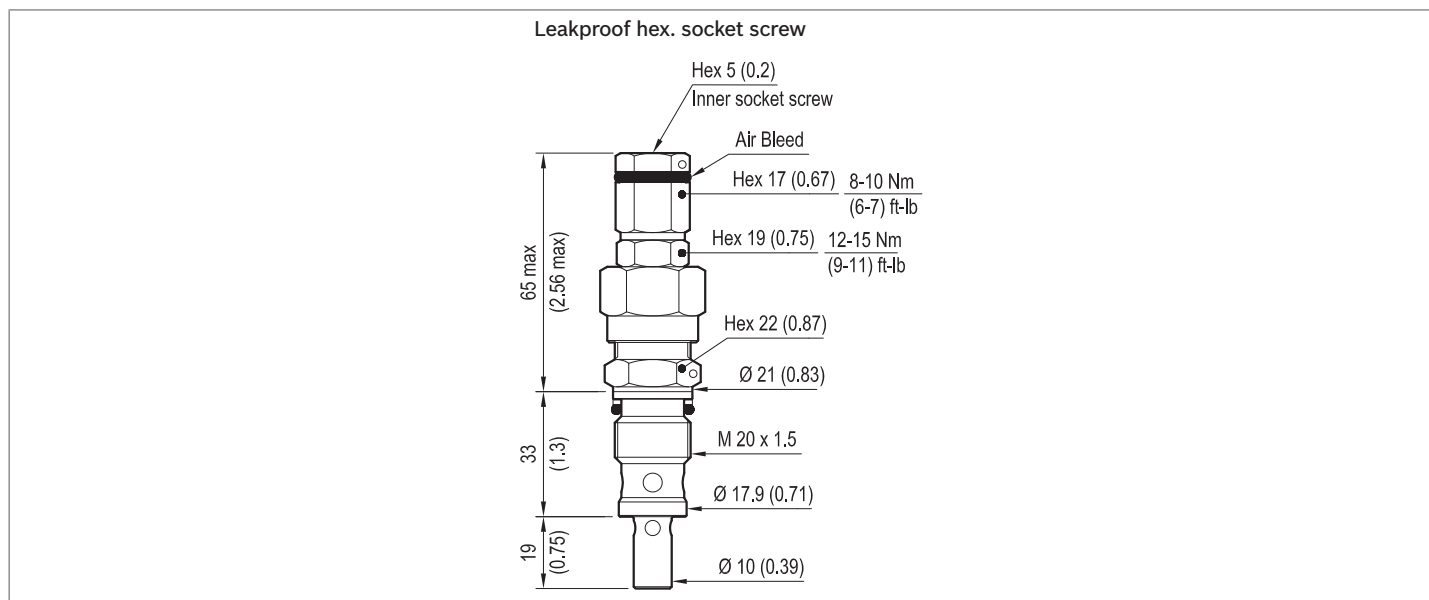
* minimum pressure setting intended with Q=5 l/min

Preferred types

Type	Material number
04112703990500D	R930006231
04112703991000D	R930006233
04112703992000D	R930006234
04112703993500D	R930006239

Type	Material number

Dimensions



Priority unloading pilot operated

Common cavity, Size 08

VMSN-08A

04.75.21 - X - 56 - Z

RE 18318-16

Edition: 03.2016

Replaces: 12.2011



Description

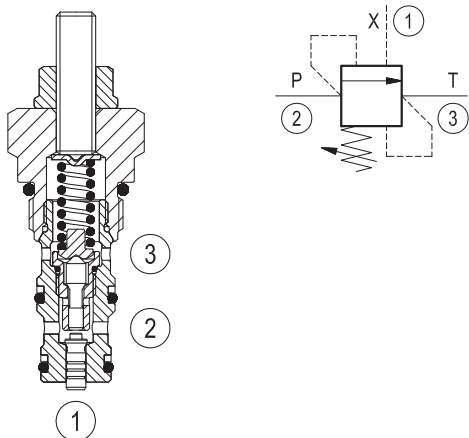
Flow is blocked from 2 to 3 until pressure increases to meet the selected valve setting, lifting the small, pilot-stage poppet from its seat. This action exhausts oil above the main-stage piston (spool type), allowing it to shift fully and unload flow from 2 through 3 with minimal pressure drop. Similarly, when remote pilot pressure at 1 exceeds the pressure setting, a secondary piston lifts the pilot-stage poppet from its seat, again exhausting fluid from 2 through 3.

Technical data

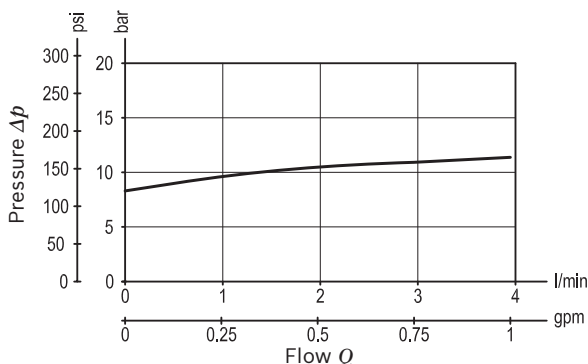
Max. operating pressure port 1-2	350 bar (5000 psi)
Max. pressure admitted port 3	50 bar (750 psi)
Max. flow	3 l/min (1 gpm)
Max. internal leakage ¹⁾	15 drops/min.
Fluid temperature range	-30 to 100 °C (-22 to 212 °F)
Installation torque	34 - 41 Nm (25 - 30 ft-lbs)
Weight	0.14 kg (0.31 lbs)
Cavity	CA-08A-3N (see data sheet 18325-70)
Lines bodies and standard assemblies	Please refer to section "Hydraulic integrated circuit" or consult factory
Seal kit ²⁾	Code: RG08A3010520100 material no: R930000861
Fluids	Mineral-based or synthetics with lubricating properties at viscosities of 10 to 500 mm ² /s (cSt)
Recommended degree of fluid contamination	Nominal value max. 10µm (NAS 8) / ISO 4406 19/17/14
Installation position	No restrictions
Other Technical Data	See data sheet 18350-50

1) At 80% of pressure setting

2) Only external seals for 10 valves



Characteristic curve



Ordering code

04.75.21	X	56	Z	00	*
-----------------	----------	-----------	----------	-----------	----------

Series 0/A to L
unchanged performances and dimensions

Priority unloading pilot operated

Version and options standard

Differential unload / reload

05 Re-seat at (57 ± 2.5) % of pressure setting

06 Re-seat at (66 ± 2.5) % of pressure setting

08 Re-seat at (80 ± 2.5) % of pressure setting

56 Common cavity, Size 08

SPRINGS

	Adj. press. range bar (psi)	Std. setting bar (psi) Q=1 l/min.
03 *	20-40 (290-580)	30 (435)
05 *	35-70 (500-1000)	50 (725)
10 *	70-140 (1000-2000)	100 (1450)
20	105-210 (1500-3000)	200 (2900)
35	175-350 (2500-5000)	350 (5000)

* Available only for x=05 and x=06

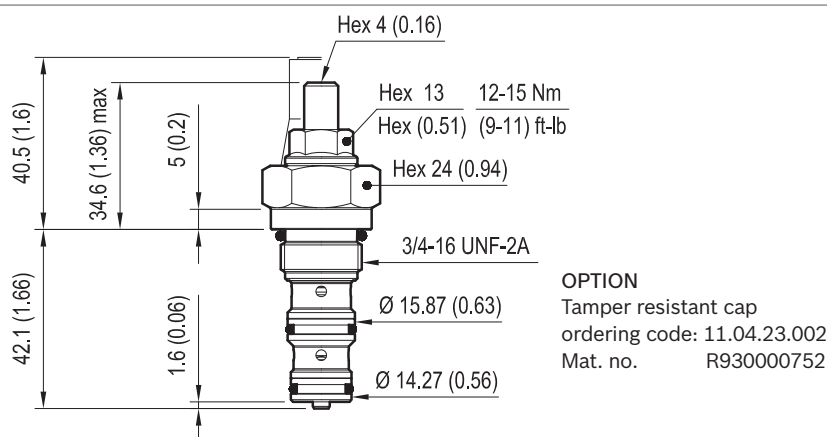
Note: Special settings available. Contact factory authorized representative for ordering code.

Preferred types

Type	Material number
047521055603000	R930006649
047521055605000	R930006650
047521055610000	R930006651
047521055620000	R930006647
047521055635000	R930006648
047521065603000	R901109763
047521065605000	R901109764

Type	Material number
047521065610000	R901109765
047521065620000	R901109766
047521065635000	R901109767
047521085620000	R930055341
047521085635000	R930055303

Dimensions

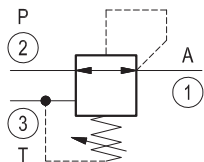
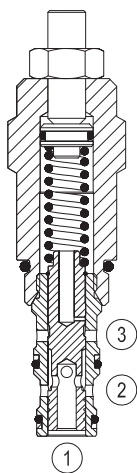


Pressure reducing and relieving, direct acting spool type

Common cavity, Size 10

VRPR-10A

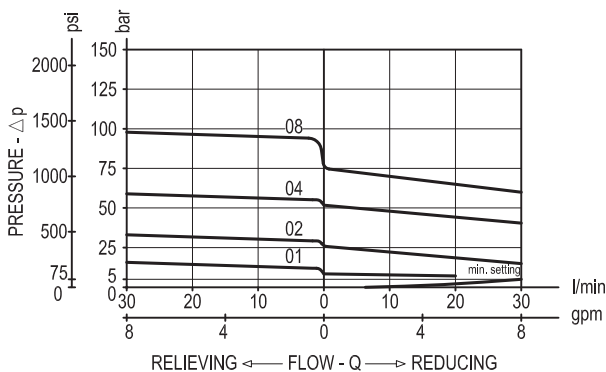
04.95.04 - X - 85 - Z



Description

Initially, flow passes freely from 2 to 1. When the pressure at 1 exceeds the pressure setting, the valve acts to restrict input flow at 2. This increases the pressure drop through the valve and maintains consistent pressure at 1. The spring chamber is drained at 3 to prevent a build-up of back-pressure against the spool. Additionally, if pressure at 1 rises above the pressure setting, flow is relieved to 3 until the setting is re-attained.

Performance



Technical data

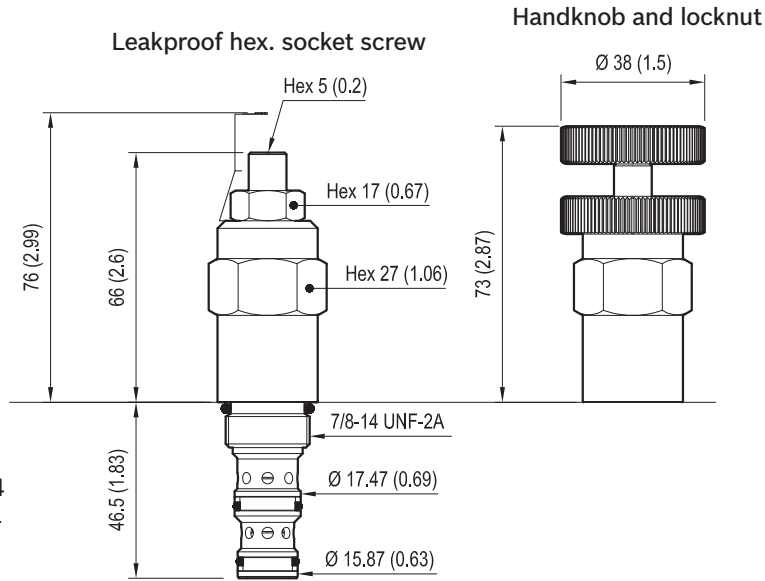
Max. operating pressure port 2 (P)	bar (psi)	350 (5000) 210 (3000) for version Z=01
Max. pressure admitted port 1 (A)	bar (psi)	105 (1500)
Max. flow	l/min. (gpm)	30 (8)
Max. internal leakage (*)	cm ³ /min. (cu.in./min.)	50 (3)
Fluid temperature range	°C (°F)	-30 to 100 (-22 to 212)
Installation torque	Nm (ft-lbs)	41-47 (30-35)
Weight (**)	kg (lbs)	0.26 (0.57)
Cavity		CA-10A-3N see data sheet RE 18325-70
Seal kit (***)	code material no.	RG10A3010520100 R901111369
Fluids		Mineral-based or synthetics with lubricating properties at viscosities of 10 to 500 mm ² /s (cSt)
Filtration		Nominal value max. 10µm (NAS 8) ISO 4406 19/17/14
Installation		No restrictions
Other general technical data		See data sheet RE 18350-50

(*) 1 - 3 to 80% of pressure setting

(**) Standard version X=03 type

(***) Only external seals for 10 valves

Dimensions



OPTION
 Tamper resistant cap
 ordering code 11.04.23.004
 Mat. no. R930001411

mm (Inches)

Ordering code

04.95.04	X	85	Z	00	*
----------	---	----	---	----	---

Pressure reducing and relieving,
 direct acting spool type

Adjustments

- = 03 Leakproof hex. socket screw
- = 04 Handknob and locknut

Common cavity, Size 10

Series O/A to L
 unchanged performances and dimensions

Version and options standard

	SPRINGS		
	Adj. press. range bar (psi)	Pressure increase bar/turn (psi/turn)	Std. setting bar (psi) (reduc. mode)
= 01	2-14 (30-200)	2 (29)	8-10 (115-145)
= 02	2-25 (30-350)	3 (44)	7-10 (100-145)
= 04	10-50 (145-725)	7 (102)	35-40 (500-580)
= 08	28-80 (400-1160)	14 (203)	45-50 (650-725)

Note: Special settings available. Contact factory
 authorized representative for ordering code

Pressure reducing and relieving,
pilot operated spool type
Common cavity, Size 10

VRPX-10A

04.93.07 - X - 85 - Z

RE 18318-56

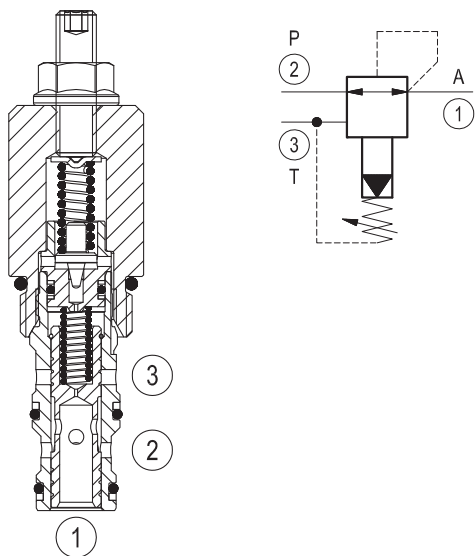
Edition: 03.2016

Replaces: 07.2012



Description

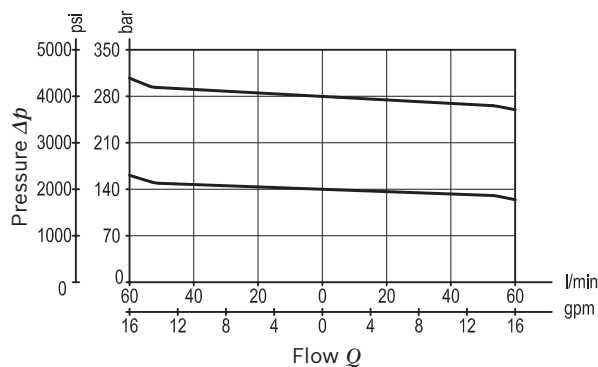
Initially, flow passes freely from 2 to 1. When the pressure at 1 exceeds the pressure setting, the conical poppet in the upper, pilot stage is lifted from its seat. This allows the main-stage piston to shift, restricting input flow at 2. This increases the pressure drop through the valve and maintains consistent pressure at 1. The spring chamber is drained at 3 to prevent a build-up of back-pressure against the spool. Additionally, if pressure at 1 rises above the pressure setting, flow is relieved to 3 until the setting is re-attained.



Technical data	
Max. operating pressure port 2 (P)	350 bar (5000 psi)
Max. pressure admitted port 1 (A)	280 bar (4000 psi)
Max. flow	60 l/min (16 gpm)
Standard internal pilot orifice diameter	0.6 mm
Fluid temperature range	-30 to 100 °C (-22 to 212 °F)
Installation torque	41 - 47 Nm (30 - 35 ft-lbs)
Weight ¹⁾	0.2 kg (0.44 lbs)
Cavity	CA-10A-3N (see data sheet 18325-70)
Lines bodies and standard assemblies	Please refer to section "Hydraulic integrated circuit" or consult factory
Seal kit ²⁾	Code: RG10A3010520100 material no: R901111369
Fluids	Mineral-based or synthetics with lubricating properties at viscosities of 10 to 500 mm ² /s (cSt)
Recommended degree of fluid contamination	Nominal value max. 10µm (NAS 8) / ISO 4406 19/17/14
Installation position	No restrictions
Other Technical Data	See data sheet 18350-50

- 1) Standard version X=03 type
- 2) Only external seals for 10 valves

Characteristic curve



Ordering code

04.93.07	X	85	Z	00	*
-----------------	----------	-----------	----------	-----------	----------

Series 0/A to L
unchanged performances and dimensions

Pressure reducing and relieving,
pilot operated spool type

Version and options standard

Adjustments

03 Leakproof hex. socket screw

04 Handknob and locknut

85 Common cavity, Size 10

SPRINGS

		Adj. press. range bar (psi)	Pressure increase bar/turn (psi/turn)	Std. setting bar (psi) (reduc mode)
for X= 03	05	25-100 (360-1450)	31 (450)	50 (725)
	10	35-140 (500-2000)	48 (696)	100 (1450)
	20	70-280 (1000-4000)	88 (1276)	200 (2900)
for X= 04	35	35-350 (500-5000)	68 (986)	350 (5000)

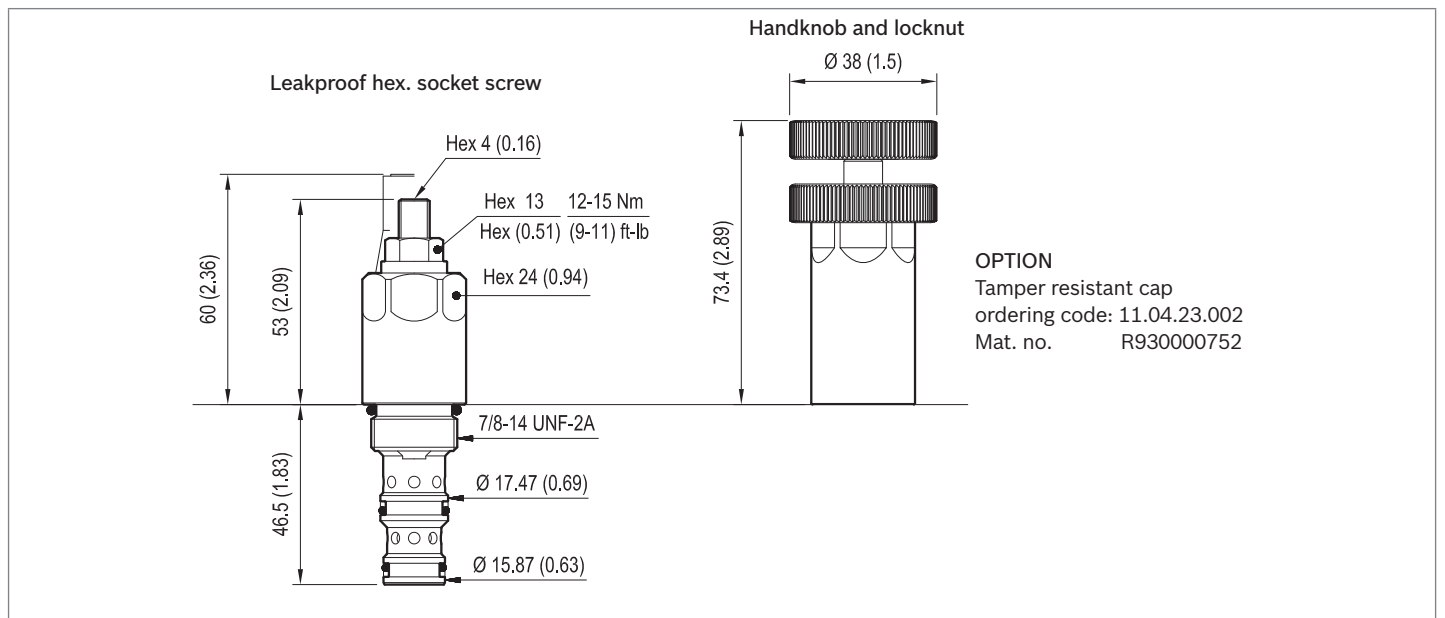
Note: Special settings available. Contact factory authorized representative for ordering code.

Preferred types

Type	Material number
049307038505000	R930006982
049307038510000	R901104118
049307038520000	R901106468
049307048535000	R930005596

Type	Material number

Dimensions



Counterbalance, standard guided poppet type

Common cavity, Size 08

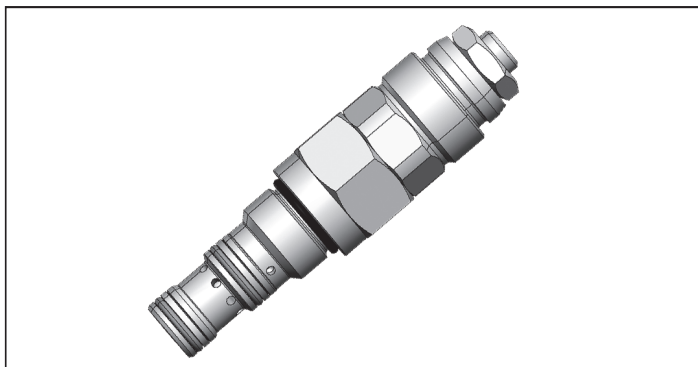
VBSN-08AA

04.52.20 - X - 56 - Z

RE 18320-01

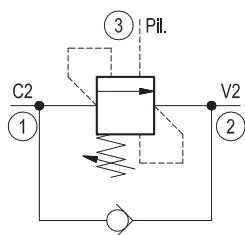
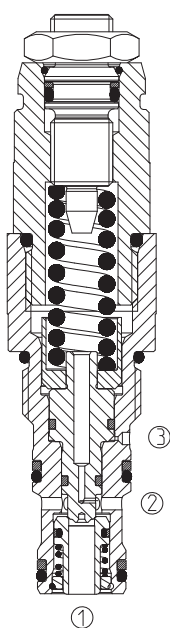
Edition: 07.2021

Replaces: 01.2021



Description

When pressure at 2 rises above the spring bias pressure, the check seat is pushed away from the piston and flow is allowed from 2 to 1. When load pressure at 1 rises above the pressure setting, the direct-acting, relief function is activated and flow is relieved from 1 to 2. With pilot pressure at 3, the pressure setting is reduced in proportion to the stated ratio of the valve, until fully open with free-flow from 1 to 2. The spring chamber is drained to 2, and any back-pressure at 2 is additive to the pressure setting in all functions. Valve design prevents spring going solid and complete unscrewing during adjusting.

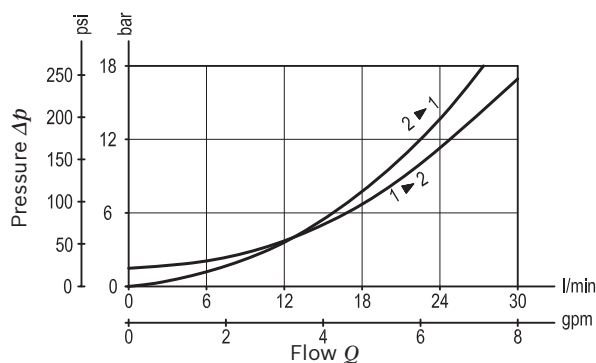


Technical data	
Max. operating pressure	350 bar (5000 psi)
Max. flow	30 l/min (8 gpm)
Max. internal leakage ¹⁾	5 drops/min.
Fluid temperature range	-30 to 100 °C (-22 to 212 °F)
Installation torque	34 - 41 Nm (25 - 30 ft-lbs)
Weight	0.18 kg (0.4 lbs)
MTTFD	150 years see RE 18350-51
Cavity	CA-08A-3C (see data sheet 18325-70)
Adjustment	according to ISO 4413 with sealed adjustment screw to prevent oil leakage during adjustment
Salt spray test	500h according to DIN EN ISO 9227:2017-07
Lines bodies and standard assemblies	Please refer to section "Hydraulic integrated circuit" or consult factory
Seal kit ²⁾	Code: RG08A9010520100 material no: R901101592
Fluids	Mineral-based or synthetics with lubricating properties at viscosities of 10 to 500 mm ² /s (cSt)
Recommended degree of fluid contamination	Nominal value max. 10µm (NAS 8) / ISO 4406 19/17/14
Installation position	No restrictions
Other Technical Data	See data sheet 18350-50

Pressure setting: at least 1.3 times the load induced pressure and maximum 1.5 times catalogue max nominal setting.

- 1) At 70% of pressure setting
- 2) Only external seals for 10 valves

Characteristic curve



Ordering code

04.52.20	X	56	Z	*	*
-----------------	----------	-----------	----------	----------	----------

Counterbalance,
standard guided poppet type
poppet type

Series M to Z
unchanged performances and dimensions

00 Standard (Buna)
VO Viton (FKM)

Pilot ratio

03 4:1 Without sealed pilot piston

33 4:1

56 Common cavity, Size 08

SPRINGS

	Adj. press. range bar (psi)	Pressure increase bar/turn (psi/turn)	Std. setting bar (psi) Q=5 l/min.
15	70-150 (1000-2200)	72.5 (1051)	150 (2200)
20	100-210 (1450-3000)	109 (1581)	200 (2900)
35	200-350 (2900-5000)	137 (1987)	350 (5000)

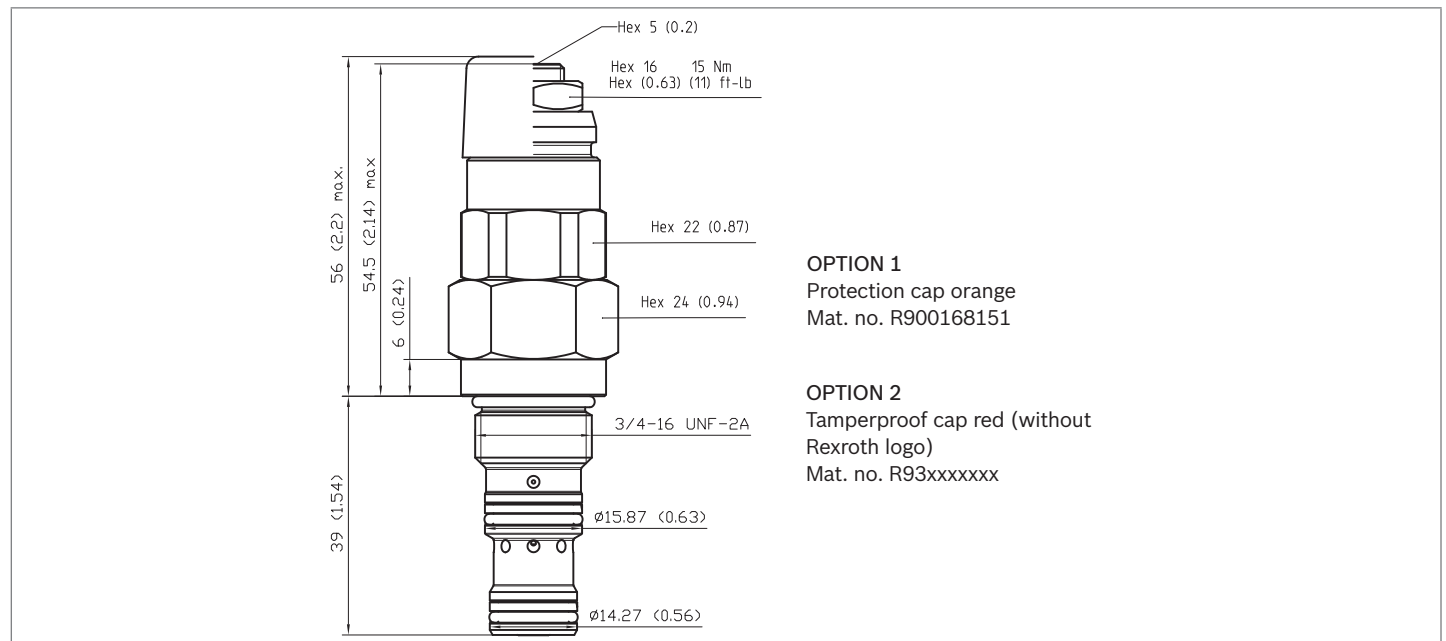
Note: Special settings available with optional tamperproof cap. Contact factory authorized representative for ordering code.

Preferred types

Type	Material number
04522033563500M	R930081365
04522003561500M	R930081219
04522003562000M	R930081221
04522003563500M	R930081224

Type	Material number
04522033562000M	R930081227

Dimensions



Counterbalance, standard poppet type
differential area
Common cavity, Size 10

VBSN-10A

04.52.31 - X - 85 - Z

RE 18320-02

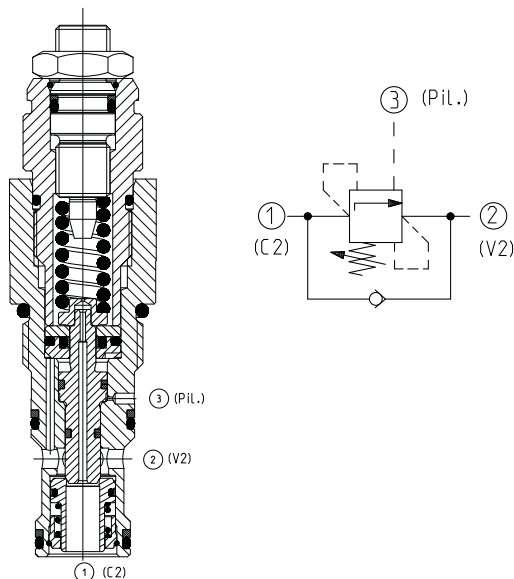
Edition: 01.2021

Replaces: 06.2019



Description

When pressure at 2 rises above the spring bias pressure, the check seat is pushed away from the piston and flow is allowed from 2 to 1. When load pressure at 1 rises above the pressure setting, the direct-acting, differential area relief function is activated and flow is relieved from 1 to 2. With pilot pressure at 3, the pressure setting is reduced in proportion to the stated ratio of the valve, until fully open with free-flow from 1 to 2. The spring chamber is drained to 2, and any back-pressure at 2 is additive to the pressure setting in all functions. Valve design prevents spring going solid and complete unscrewing during adjusting.



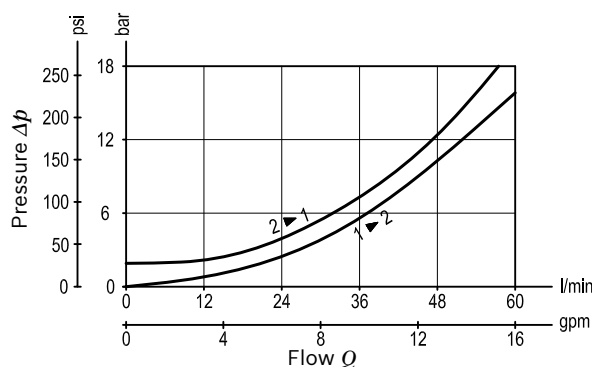
Technical data

Max. operating pressure	350 bar (5000 psi)
Max. flow	60 l/min (16 gpm)
Max. internal leakage ¹⁾	15 drops/min.
Fluid temperature range	-30 to 100 °C (-22 to 212 °F)
Installation torque	41 - 47 Nm (30 - 35 ft-lbs)
Weight	0.2 kg (0.44 lbs)
MTTFD	150 years see RE 18350-51
Cavity	CA-10A-3C (see data sheet 18325-70)
Adjustment	according to ISO 4413 with sealed adjustment screw to prevent oil leakage during adjustment
Salt spray test	500h according to DIN EN ISO 9227:2017-07
Lines bodies and standard assemblies	Please refer to section "Hydraulic integrated circuit" or consult factory
Seal kit ²⁾	Code: RG10A9010520100 material no: R901111367
Fluids	Mineral-based or synthetics with lubricating properties at viscosities of 10 to 500 mm ² /s (cSt)
Recommended degree of fluid contamination	Nominal value max. 10µm (NAS 8) / ISO 4406 19/17/14
Installation position	No restrictions
Other Technical Data	See data sheet 18350-50

Pressure setting: at least 1.3 times the load induced pressure and maximum 1.5 times catalogue max nominal setting.

- 1) At 70% of pressure setting
- 2) Only external seals for 10 valves

Characteristic curve



Ordering code

04.52.31	X	85	Z	*	*
-----------------	----------	-----------	----------	----------	----------

Series M to Z
unchanged performances and dimensions

Counterbalance,
standard poppet type, differential area

00 Standard (Buna)
V0 Viton (FKM)

Pilot ratio

03 3:1

10 8:1

31 1.5:1

Without sealed pilot piston.

85 Common cavity, Size 10

SPRINGS

		Adj. press. range bar (psi)	Pressure increase bar/turn (psi/turn)	Std. setting bar (psi) Q=5 l/min
for X= 03	20	70-210 (1000-3000)	135 (1958)	200 (2900)
	35	140-350 (2000-5000)	196 (2842)	350 (5000)
for X= 10	20	70-210 (1000-3000)	52 (754)	200 (2900)
	35	140-350 (2000-5000)	89 (1291)	350 (5000)
for X= 31	35	140-350 (2000-5000)	89 (1291)	350 (5000)

Note: Special settings available with optional tamperproof cap.
Contact factory authorized representative for ordering code.

Preferred types

Type	Material number
04523131853500M	R930080592
04523103852000M	R930081264
04523103853500M	R930081266
04523110852000M	R930081267

Type	Material number
04523110853500M	R930081268

Dimensions

OPTION 1
Protection cap orange
Mat. no. R900168151

OPTION 2
Tamperproof cap red (without
Rexroth logo)
Mat. no. R93xxxxxxx

Counterbalance, standard poppet type
differential area
Common cavity, Size 12

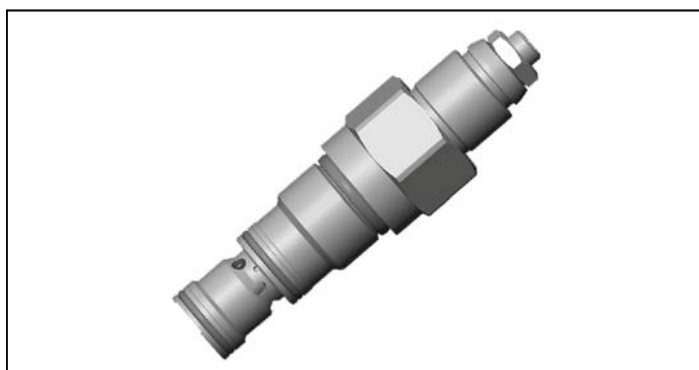
VBSN-12A

04.52.28 - X - 57 - Z

RE 18320-03

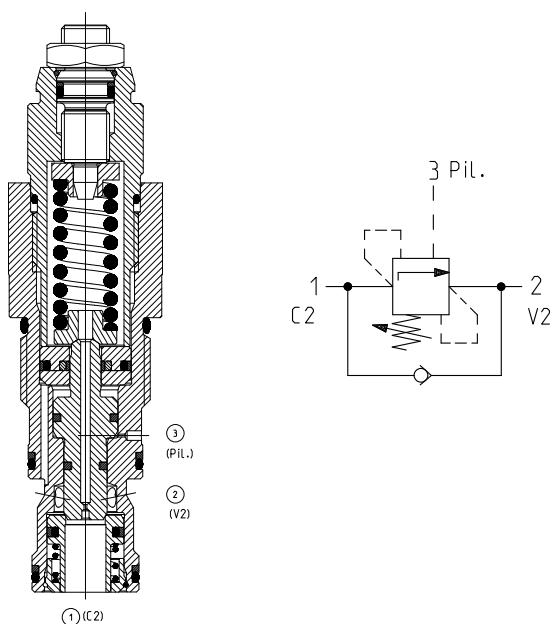
Edition: 01.2021

Replaces: 06.2019



Description

When pressure at 2 rises above the spring bias pressure, the check seat is pushed away from the piston and flow is allowed from 2 to 1. When load pressure at 1 rises above the pressure setting, the direct-acting, differential area relief function is activated and flow is relieved from 1 to 2. With pilot pressure at 3, the pressure setting is reduced in proportion to the stated ratio of the valve, until fully open with free-flow from 1 to 2. The spring chamber is drained to 2, and any back-pressure at 2 is additive to the pressure setting in all functions. Valve design prevents spring going solid and complete unscrewing during adjusting.

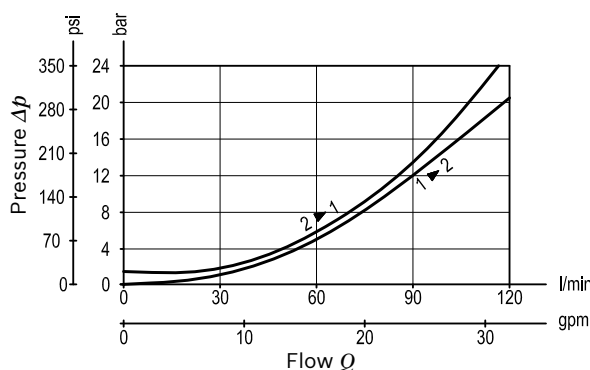


Technical data	
Max. operating pressure	350 bar (5000 psi)
Max. flow	120 l/min (32 gpm)
Max. internal leakage ¹⁾	15 drops/min.
Fluid temperature range	-30 to 100 °C (-22 to 212 °F)
Installation torque	81 - 95 Nm (60 - 70 ft-lbs)
Weight	0.39 kg (0.86 lbs)
MTTFD	150 years see RE 18350-51
Cavity	CA-12A-3C (see data sheet 18325-70)
Adjustment	according to ISO 4413 with sealed adjustment screw to prevent oil leakage during adjustment
Salt spray test	500h according to DIN EN ISO 9227:2017-07
Lines bodies and standard assemblies	Please refer to section "Hydraulic integrated circuit" or consult factory
Seal kit ²⁾	Code: RG12A9010520100 material no: R901111379
Fluids	Mineral-based or synthetics with lubricating properties at viscosities of 10 to 500 mm ² /s (cSt)
Recommended degree of fluid contamination	Nominal value max. 10µm (NAS 8) / ISO 4406 19/17/14
Installation position	No restrictions
Other Technical Data	See data sheet 18350-50

Pressure setting: at least 1.3 times the load induced pressure and maximum 1.5 times catalogue max nominal setting.

- 1) At 70% of pressure setting
- 2) Only external seals for 10 valves

Characteristic curve



Ordering code

04.52.28	X	57	Z	*	*
-----------------	----------	-----------	----------	----------	----------

Counterbalance, standard poppet type, differential area

Pilot ratio

03 4:1

10 8:1

Without sealed pilot piston.

57 Common cavity, Size 12

Series M to Z
unchanged performances and dimensions

00 Standard (Buna)

V0 Viton (FKM)

SPRINGS

		Adj. press. range bar (psi)	Pressure increase bar/turn (psi/turn)	Std. setting bar (psi) Q=5 l/min
for X= 03	20	70-210 (1000-3000)	50 (725)	200 (2900)
	35	140-350 (2000-5000)	159 (2306)	350 (5000)
for X= 10	20	70-210 (1000-3000)	42 (609)	200 (2900)
	35	140-350 (2000-5000)	67 (972)	350 (5000)
	40			

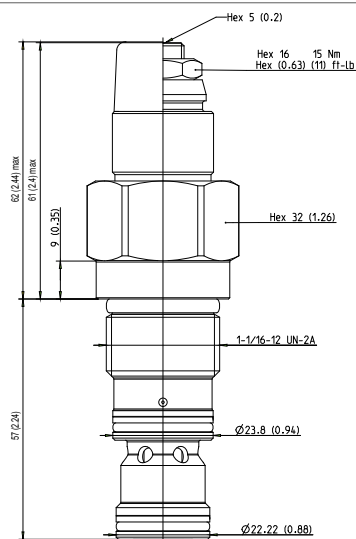
Note: Special settings available with optional tamperproof cap.
Contact factory authorized representative for ordering code.

Preferred types

Type	Material number
04522803572000M	R930081269
04522803573500M	R930081270
04522810572000M	R930081273
04522810573500M	R930081274

Type	Material number
04522810574000M	R930081275

Dimensions



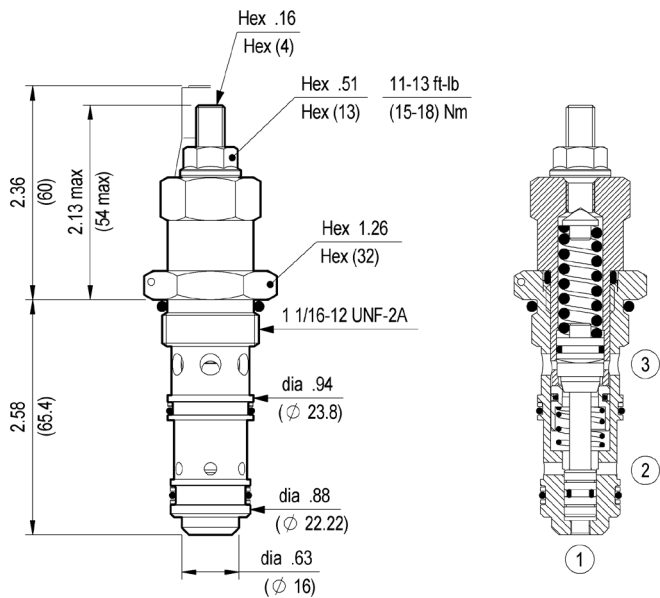
OPTION 1
Protection cap orange
Mat. no. R900168151

OPTION 2
Tamperproof cap red (without
Rexroth logo)
Mat. no. R93xxxxxxx

**COUNTERBALANCE, STANDARD POPPET TYPE
DIFFERENTIAL AREA
SPECIAL CAVITY**

VBSO-SEC-30

04.52.04 - X - 99 - Z



Inches
(mm)

When pressure at 3 rises above the spring bias pressure, the check seat is pushed away from the piston and flow is allowed from 3 to 2. When load pressure at 2 rises above the pressure setting, the direct-acting, differential area relief function is activated and flow is relieved from 2 to 3. With pilot pressure at 1, the pressure setting is reduced in proportion to the stated ratio of the valve, until fully open with free-flow from 2 to 3. The spring chamber is drained to 3, and any back-pressure at 3 is additive to the pressure setting in all functions.

TECHNICAL DATA

Max. pressure: 5000 psi (350 bar)

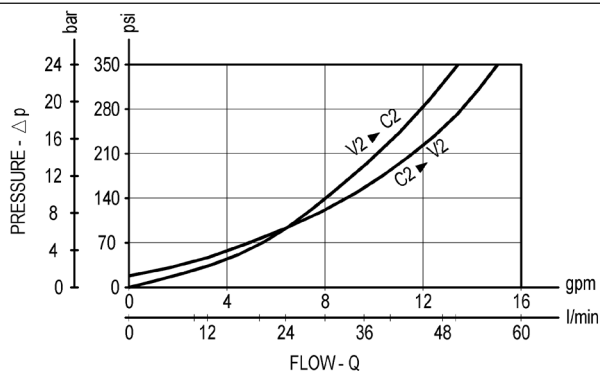
Max. flow: 16 gpm (60 l/min)

Special cavity : 063 (see page CT.S.002.U)

Installation torque : 86-95 ft-lb (116-128 Nm)

Weight: 0.551 lbs (0.250 Kg)

Pressure setting: at least 1.3 times the load induced pressure



X

PILOT RATIO

03


4.2 : 1

Z

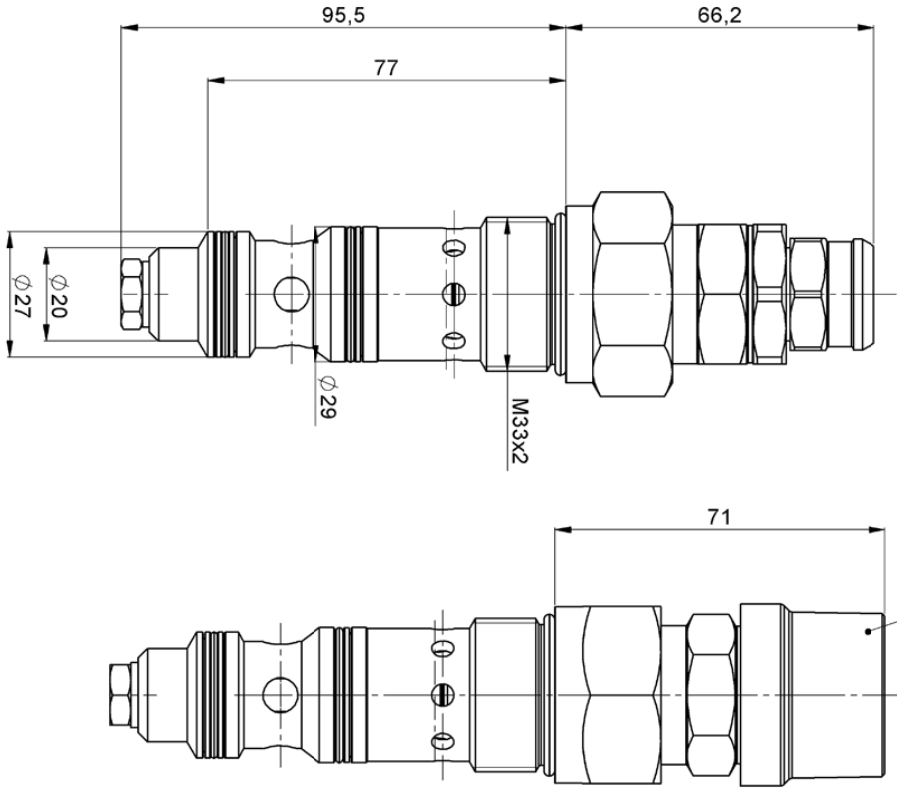
SPRINGS

	Adj. press. range psi (bar)	Press. increase psi / turn (bar/turn)	Standard setting psi (bar) (Q=5 l/min)
20	870-3000 (60-210)	812 (56)	2900 (200)
35	1450-5000 (100-350)	2001 (138)	5000 (350)

OPTIONS

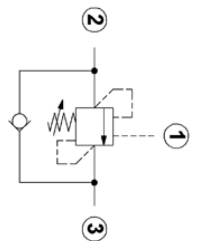
Ordering code	Description
11.04.23.002	 Sealing cap

Special settings available. Contact factory authorized representative for ordering code.



Technical data:

Max. pressure:	350 bar
Max. flow:	150 l/min
Pilot ratio:	4:1
Special cavity:	CC063A-01
Installation torque:	148-167 Nm
Weight:	0.700 kg
Setting adj. range:	100-350 bar
Pressure increase:	110 bar/turn
Standard setting (5 l/min):	350



All dimensions : mm

Denominazione / Denomination VBSO-SEC-33-35-4:1-91		Rexroth Bosch Group	
Specifiche / Specifications Max Pressure/Pressione Max 350 bar Max Flow/Portata Max 150 l/min Pilot Ratio/Rapporto di pilotaggio 4:1		Bosch Rexroth Oil Control S.p.A. Ufficio Tecnico DC-IMA/ECC1 Gerarchia Prodotto 871307201 Product Hierarchy	
Massa / Mass (kg) 0,700	Cliente e codice articolo Customer and article code UTT119650	Modifiche / Changes Replaces Seal kit	Kit guarniz. Seal kit
Richiesta / Request Tipo cavità / Cavity type CC063A-01	Num. schema idraulico / Hydraul. scheme no. bs_0170	Designato / Designed by Moretti	Data / Date 04/07/14
Disegno di proprietà BOSCH REXROTH/CONTROL S.p.A. Utilizzato ai termini di legge. È vietata la riproduzione e la diffusione non autorizzata. REPRODUCTION OF CONTROL S.p.A. is prohibited according to the laws. Unauthorized reproduction and distribution is strictly prohibited.	Verificato / Checked by Tagliazucchi	Direzione del file Cad / Cad file directory K:\Design\Cad 3D\lingombri\0452119199350001	Codice 046211919935000
		Materiale number R933006744	

MODIFICHE / CHANGES

Flow control,
cartridge restrictor
Common cavity, Size 08

ST-C-06

OD.21.01 - X - 56

RE 18321-26

Edition: 03.2016

Replaces: 11.2015



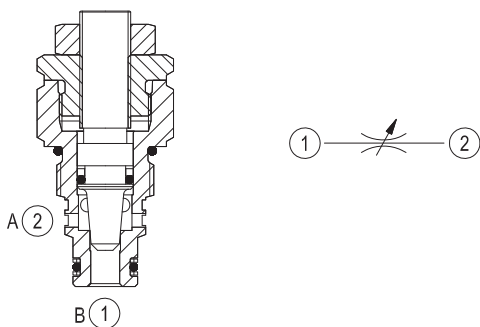
Description

Increasing the orifice value from fully closed to fully open, flow is permitted and regulated bi-directional from 1 to 2 and from 2 to 1. With valve fully closed no leakage permitted between ports 1 and 2.

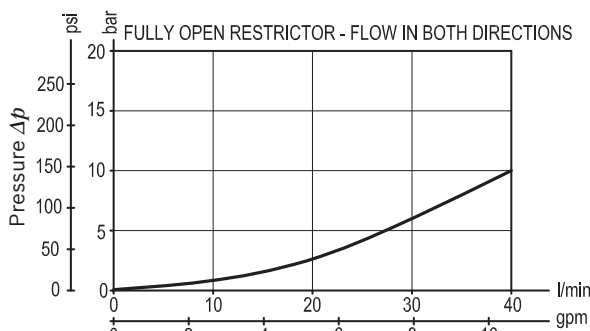
Technical data

Max. operating pressure	350 bar (5000 psi)
Rated flow	40 l/min. (11 gpm)
Fluid temperature range	-30 to 100 °C (-22 to 212 °F)
Installation torque	39 - 51 Nm (29 - 38 ft-lbs)
Weight	0.09 kg (0.2 lbs)
Cavity	CA-08A-2N (see data sheet 18325-70)
Lines bodies and standard assemblies	Please refer to section "Hydraulic integrated circuit" or consult factory
Seal kit ¹⁾	Code: RG08A2010530100 material no: R901101544
Fluids	Mineral-based or synthetics with lubricating properties at viscosities of 10 to 500 mm ² /s (cSt)
Recommended degree of fluid contamination	Nominal value max. 10µm (NAS 8) / ISO 4406 19/17/14
Installation	No restrictions
Other Technical Data	See data sheet 18350-50

1) Only external seals for 10 valves



Characteristic curve



Ordering code

OD.21.01	X	56
-----------------	----------	-----------

Flow control, cartridge restrictor

Adjustments

03 Leakproof hex. socket screw

04 Handknob and locknut

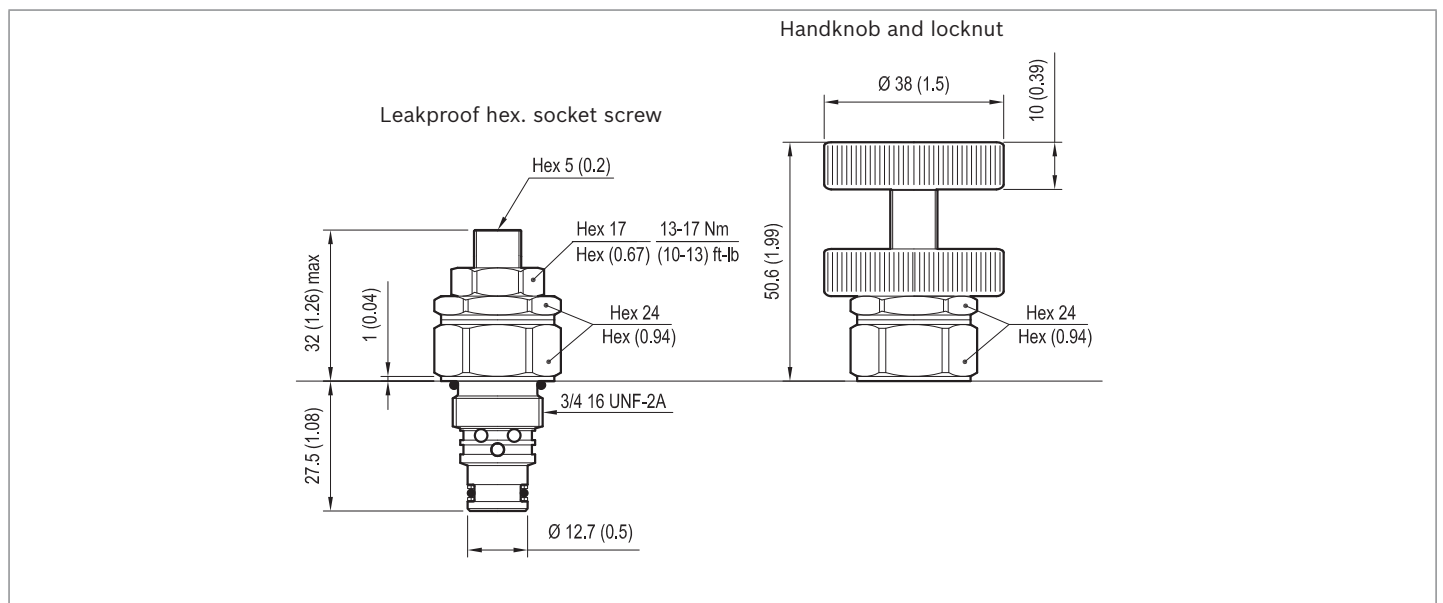
56 Common cavity, Size 08

Preferred types

Type	Material number
OD21010356	R901109366
OD21010456	R901109367

Type	Material number

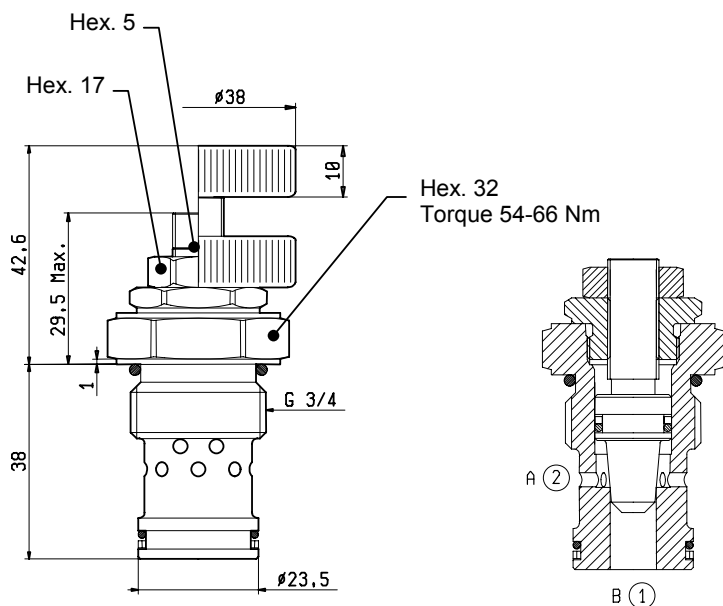
Dimensions



**FLOW CONTROL VALVES
CARTRIDGE RESTRICTORS**

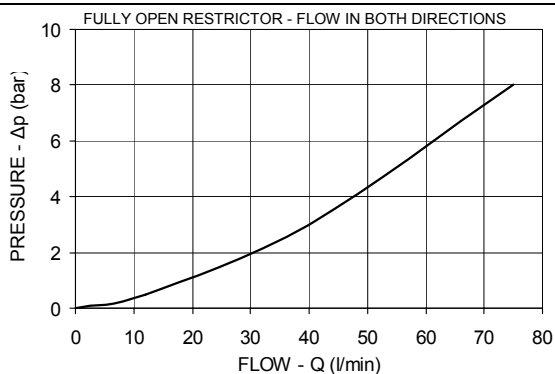
ST-C-09

OD.21.01 - X - 04



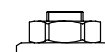
TECHNICAL DATA

Maximum Operating Pressure	350	bar
Rated Flow	70	l/min
Cavity - Tooling (017-E)	page 7.01.100	
Weight	0.180	kg
Fluids - Temperatures	page 7.01.040	
Testing Conditions - Seals	page 7.01.040	
Internal Leakage	page 7.01.040	
Filtration : 25 μ m nominal or better	page 7.01.050	
Adjustment Torque at 10 bar	1	Nm
Adjustment Torque at 350 bar	10	Nm
Mounting Position	unrestricted	

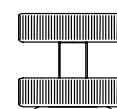


X ORDERING OPTIONS

03 Socket Screw



04 Handknob and Locknut



Flow control,
cartridge restrictor
Common cavity, Size 10

ST-C-10

OD.21.01 - X - 36

RE 18321-27

Edition: 03.2016

Replaces: 02.2011



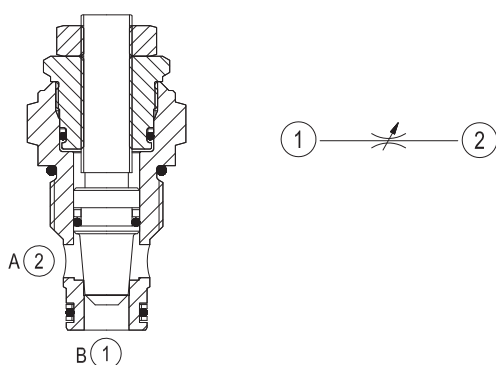
Description

Increasing the orifice value from fully closed to fully open, flow is permitted and regulated bi-directional from 1 to 2 and from 2 to 1. With valve fully closed no leakage permitted between ports 1 and 2.

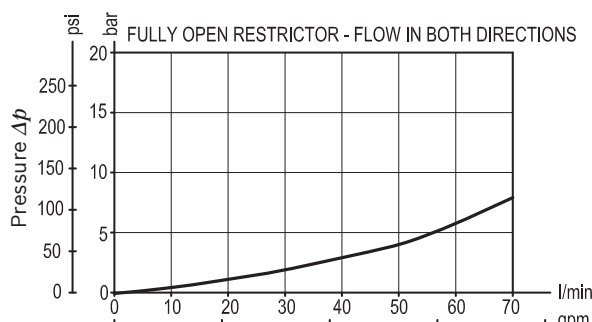
Technical data

Max. operating pressure	350 bar (5000 psi)
Rated flow	70 l/min. (19 gpm)
Fluid temperature range	-30 to 100 °C (-22 to 212 °F)
Installation torque	44 - 56 Nm (33 - 41 ft-lbs)
Weight	0.18 kg (0.4 lbs)
Cavity	CA-10A-2N (see data sheet 18325-70)
Lines bodies and standard assemblies	Please refer to section "Hydraulic integrated circuit" or consult factory
Seal kit ¹⁾	Code: RG10A2010530100 material no: R901111366
Fluids	Mineral-based or synthetics with lubricating properties at viscosities of 10 to 500 mm ² /s (cSt)
Recommended degree of fluid contamination	Nominal value max. 10µm (NAS 8) / ISO 4406 19/17/14
Installation	No restrictions
Other Technical Data	See data sheet 18350-50

1) Only external seals for 10 valves



Characteristic curve



Ordering code

OD.21.01	X	36	00	*
-----------------	----------	-----------	-----------	----------

Flow control, cartridge restrictor

Series O/A to L
unchanged performances and dimensions

Adjustments

Version and options standard

03 Leakproof hex. socket screw

04 Handknob and locknut

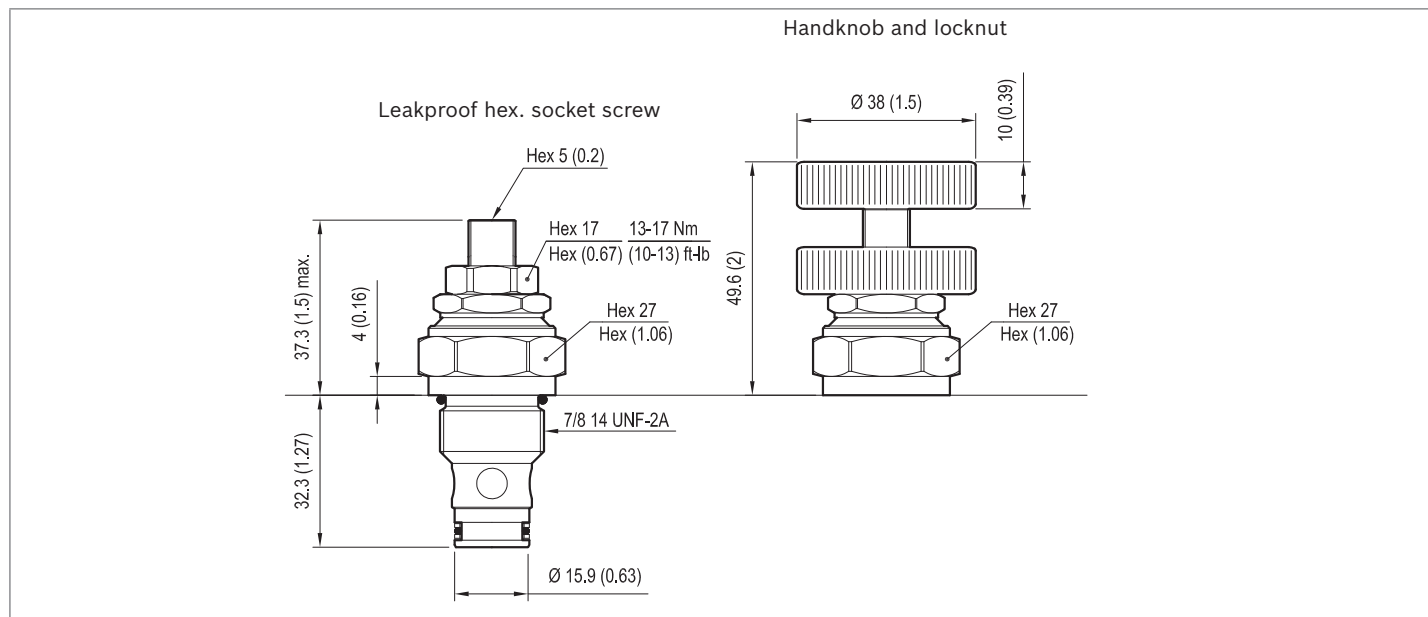
36 Common cavity, Size 10

Preferred types

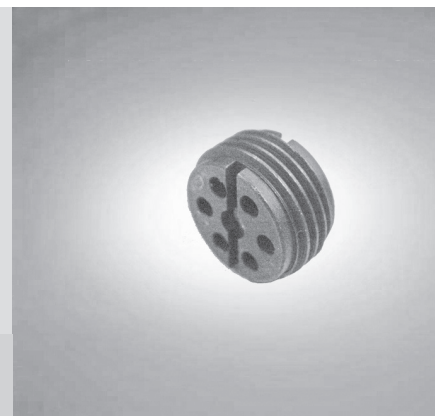
Type	Material number
OD210103360000	R901109830
OD210104360000	R901109831

Type	Material number

Dimensions



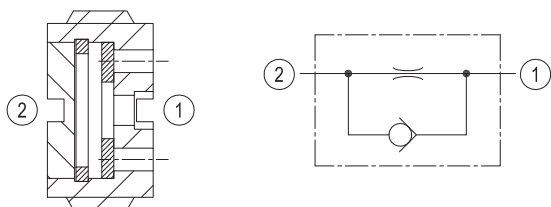
Insert type Flow control, restrictor with reverse flow check



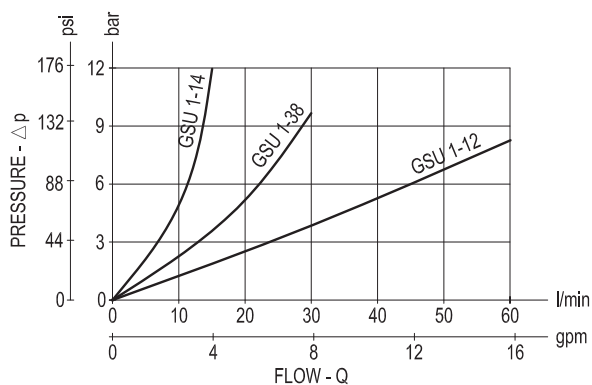
GSU1

Description

The "B-A" flow is restricted by a calibrated orifice while flow "A-B" is always allowed through the incorporated check valve. Pressure compensation is not provided and flow depends from pressure drop and viscosity. The GSU1 cartridge is available in different orifice sizes.



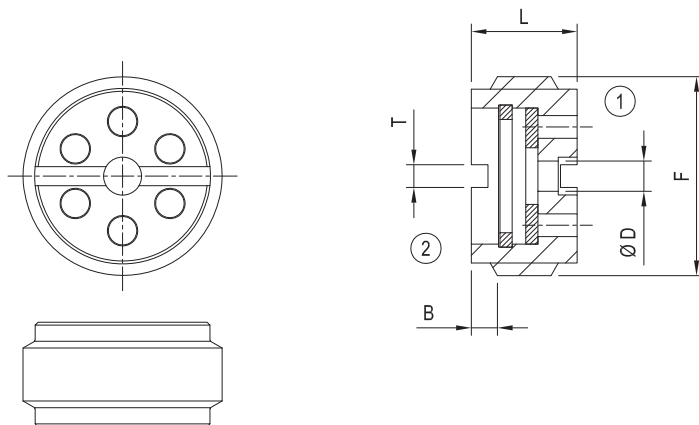
Performance



Technical data

Max. operating pressure	bar (psi)	300 (4300)
Max. flow	l/min. (gpm)	see "Regulated flow range" table
Fluid temperature range	°C (°F)	-30 to 100 (-22 to 212)
Weight	kg (lbs)	see "Dimensions" table
Special cavity		see "Dimensions"
Lines bodies and standard assemblies		Please refer to section "Hydraulic integrated circuit" or consult factory
Fluids		Mineral-based or synthetics with lubricating properties at viscosities of 10 to 500 mm ² /s (cSt)
Recommended degree of fluid contamination		Nominal value max. 10µm (NAS 8) ISO 4406 20/18/15
Installation		No restrictions
Other Technical Data		See data sheet RE 18350-50

Dimensions



F	L	B	T	Weight kg (lbs)	Flow max. l/min. (gpm)
G 1/4	7 (0.28)	1.1 (0.04)	2 (0.08)	0.005 (0.011)	15 (4)
G 3/8	8.5 (0.33)	1.5 (0.06)	1.5 (0.06)	0.009 (0.02)	30 (8)
G 1/2	11 (0.43)	2 (0.08)	1.5 (0.06)	0.018 (0.04)	70 (18)

Note: available also as "Sleeve valve for line mounting"
See data sheet RE 18316-02

Ordering code

GSU1 . . .

Insert type - Restrictor with reverse flow check

Port sizes

- = 14 G 1/4
- = 38 G 3/8
- = 12 G 1/2

	Standard hole diameter ØD mm (inches)		
	for port = 14	for port = 38	for port = 12
= 000	wihout hole	wihout hole	wihout hole
= 030	0.3 (0.012)	-	-
= 040	0.4 (0.016)	-	-
= 050	0.5 (0.02)	0.5 (0.02)	-
= 060	0.6 (0.024)	0.6 (0.024)	-
= 065	0.65 (0.026)	-	-
= 075	0.75 (0.03)	0.75 (0.03)	-
= 080	0.8 (0.031)	0.8 (0.031)	-
= 100	1 (0.039)	1 (0.039)	1 (0.039)
= 110	1.1 (0.043)	-	-
= 120	1.2 (0.047)	-	-
= 125	1.25 (0.049)	1.25 (0.049)	-
= 130	-	-	1.3 (0.051)
= 150	1.5 (0.059)	1.5 (0.059)	1.5 (0.059)
= 160	1.6 (0.063)	1.6 (0.063)	-
= 170	1.7 (0.067)	-	-
= 190	-	-	1.9 (0.075)
= 200	2 (0.079)	2 (0.079)	2 (0.079)
= 220	-	2.2 (0.087)	-
= 250	2.5 (0.098)	2.5 (0.098)	2.5 (0.098)
= 300	-	-	3 (0.12)

Needle restrictor,
free reverse flow
Common cavity, Size 08

STVU-08A

04.01.03 - X - 56.00

RE 18321-10

Edition: 03.2016

Replaces: 11.2009



Description

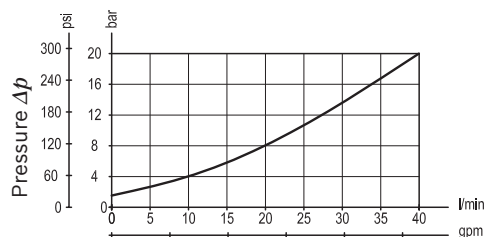
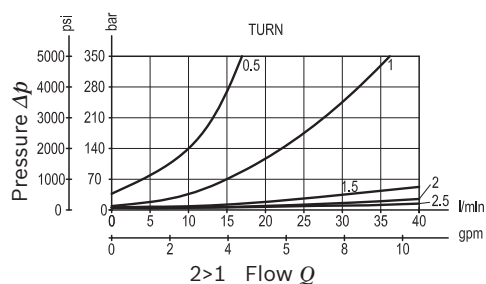
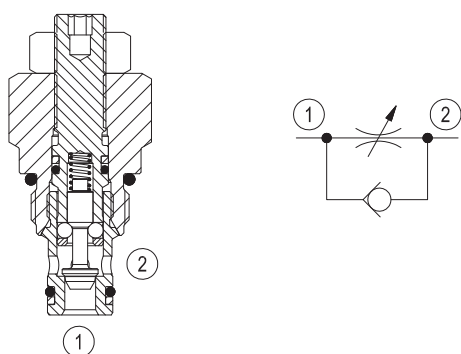
With flow from 2 to 1, the valve provides a fully adjustable orifice restriction. Free flow is permitted from 1 to 2, regardless of valve adjustment, by when pressure overcomes the spring bias of the valve's check function.

Technical data

Max. operating pressure	350 bar (5000 psi)
Max. flow	40 l/min. (11 gpm)
Max. internal leakage ¹⁾	15 drops/min. closed
Fluid temperature range	-30 to 100 °C (-22 to 212 °F)
Installation torque	34 - 41 Nm (25 - 30 ft-lbs)
Weight	0.16 kg (0.35 lbs)
Cavity	CA-08A-2N (see data sheet 18325-70)
Lines bodies and standard assemblies	Please refer to section "Hydraulic integrated circuit" or consult factory
Seal kit ²⁾	Code: RG08A2010520100 material no: R901101437
Fluids	Mineral-based or synthetics with lubricating properties at viscosities of 5 to 800 mm ² /s (cSt)
Recommended degree of fluid contamination	Nominal value max. 10µm (NAS 8) / ISO 4406 19/17/14
Installation	No restrictions
Other Technical Data	See data sheet 18350-50

- 1) Measured at 200 bar (2900 psi)
- 2) Only external seals for 10 valves

Characteristic curve



2 **STVU-08A** | Needle restrictor, free reverse flow

Dimensions [mm (inches)]

Ordering code

04.01.03	X	56	00	00	*
-----------------	----------	-----------	-----------	-----------	----------

Needle restrictor, free reverse flow

Series 0/A to L
unchanged performances and dimensions

Version and options standard

Adjustments

03 Leakproof hex. socket screw

04 Handknob and locknut

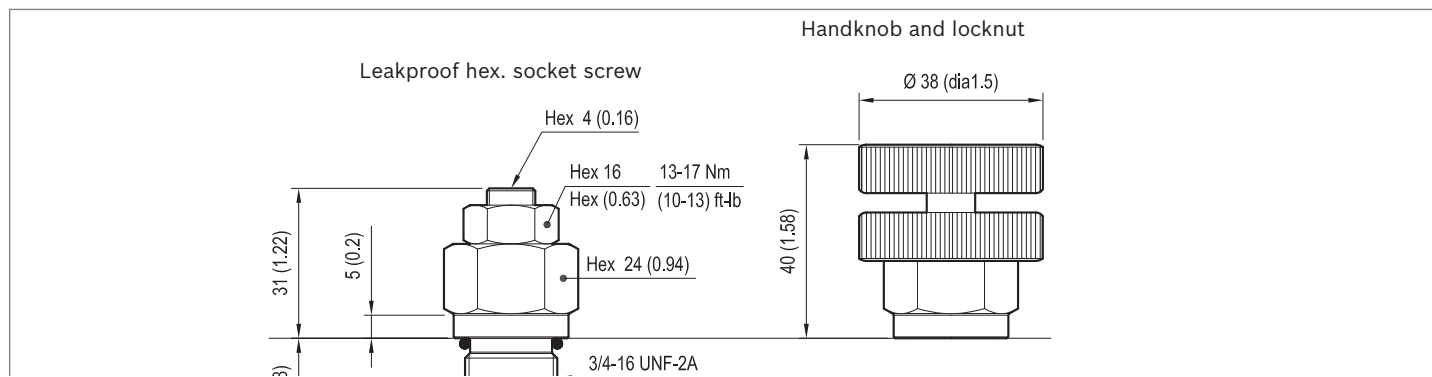
56 Common cavity, Size 08

Preferred types

Type	Material number
040103035600000	R930000002
040103045600000	R930000003

Type	Material number

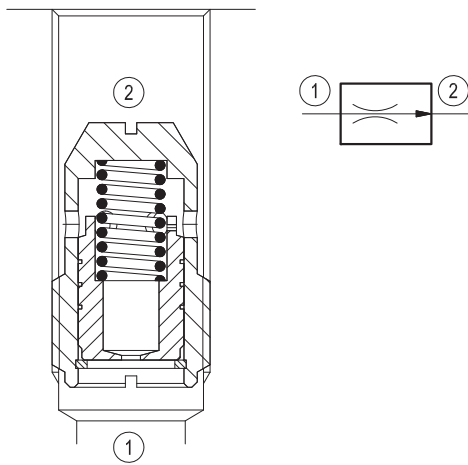
Dimensions



Insert type Flow control, 2-way pressure compensated fixed setting

SFC1

OT.F1.01.00 - Y - Z



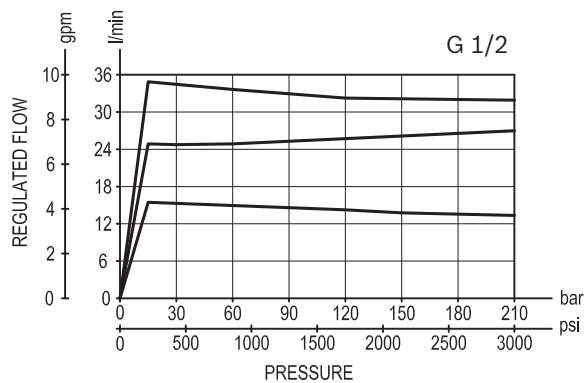
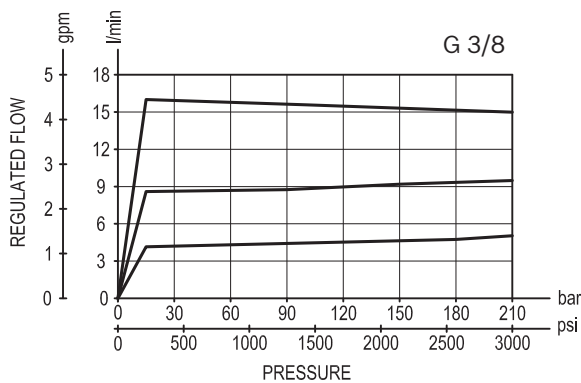
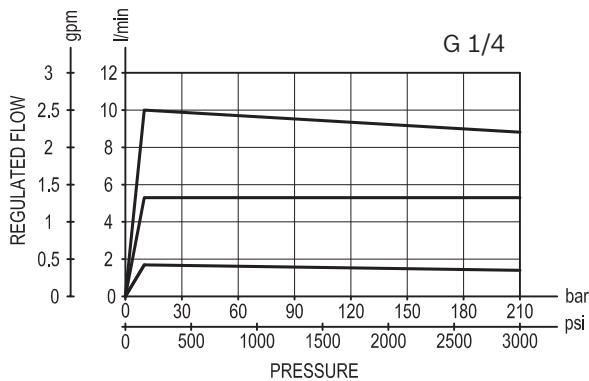
Description

A constant flow rate, regardless of system pressures, is established from 1 to 2 while a minimum pressure differential of 145 psi exists between the two ports. The valve cannot be adjusted for variable flow output. Flow from 2 to 1 is limited by the diameter of the selected control orifice and is not pressure compensated.

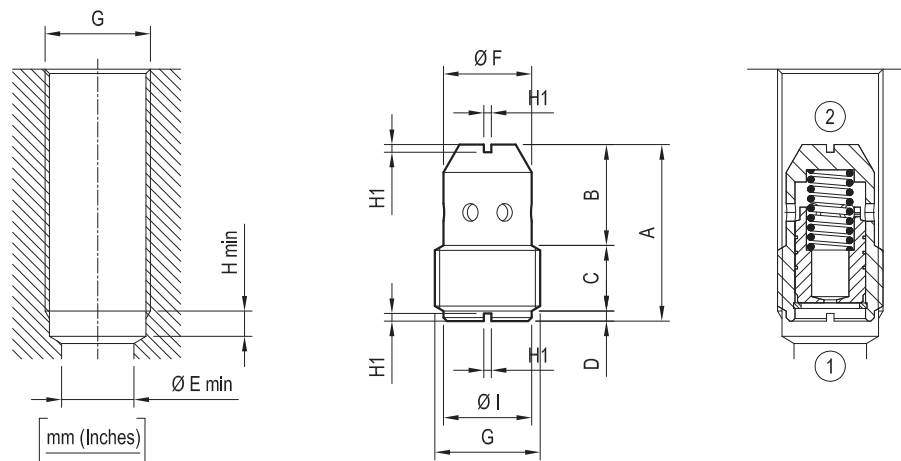
Technical data

Max. operating pressure	bar (psi)	210 (3000)
Max. flow	l/min. (gpm)	see "Regulated flow range" table
Fluid temperature range	°C (°F)	-30 to 100 (-22 to 212)
Weight	kg (lbs)	see "Dimensions" table
Special cavity		see "Dimensions"
Fluids		Mineral-based or synthetics with lubricating properties at viscosities of 10 to 500 mm ² /s (cSt)
Filtration		Nominal value max. 10µm (NAS 8) ISO 4406 19/17/14
Installation		No restrictions
Other Technical Data		See data sheet RE 18350-50

Performance



Dimensions



G	A	B	C	D	E	F	I	H	H1	Weight kg (lbs)	Flow max. l/min. (gpm)
G 1/4	25.5 (1)	13.5 (0.53)	8.5 (0.34)	3 (0.12)	8 (0.32)	10 (0.39)	11 (0.43)	5 (0.2)	1.5 (0.6)	0.011 (0.024)	10 (3)
G 3/8	28 (1.1)	15 (0.59)	10.5 (0.41)	2 (0.08)	11 (0.43)	14 (0.55)	14.5 (0.57)	5 (0.2)	1.5 (0.6)	0.024 (0.053)	16 (4)
G 1/2	35 (1.38)	19.5 (0.77)	13 (0.52)	2 (0.08)	14 (0.55)	17.5 (0.69)	17.5 (0.69)	5 (0.2)	1.5 (0.6)	0.048 (0.106)	40 (11)

Ordering code

OT.F1.01.00 | **Y** | **Z** | *****

Note: available also as "Sleeve valve for line mounting"
See data sheets RE 18316-12 and RE 18316-13

Insert type - Flow control,
2-way pressure compensated
fixed setting

Port sizes
= 09 G 1/4
= 02 G 3/8
= 03 G 1/2

Series 0/A to L
unchanged performances and dimensions

	Regulated flow range l/min. (gpm)									
	= 01	= 02	= 03	= 04	= 05	= 06	= 07	= 08	= 09	= 10
for Y=09	1 (0.3) ± 20%	2 (0.5) ± 20%	3 (0.8) ± 20%	4 (1.1) ± 15%	5 (1.3) ± 15%	6 (1.6) ± 15%	7 (1.9) ± 15%	8 (2.1) ± 15%	9 (2.4) ± 15%	10 (2.6) ± 15%
for Y=02	4 (1.1) ± 15%	5 (1.3) ± 15%	6 (1.6) ± 15%	8 (2.1) ± 15%	10 (2.6) ± 15%	12 (3.2) ± 15%	14 (3.7) ± 10%	16 (4.2) ± 10%	-	-
for Y=03	12 (3.2) ± 15%	16 (4.2) ± 10%	20 (5.3) ± 10%	25 (6.6) ± 10%	30 (7.9) ± 10%	35 (9.3) ± 10%	40 (10.6) ± 10%	-	-	-

Flow control, 2-way pressure compensated,
fully adjustable
Common cavity, Size 10

VRFB-10A

04.02.02 - X - 85 - Z

RE 18321-16

Edition: 03.2016

Replaces: 09.2009



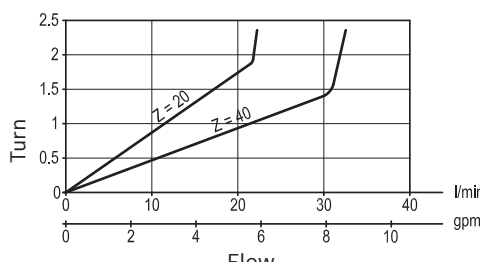
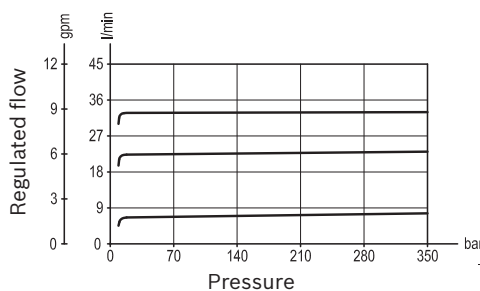
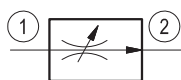
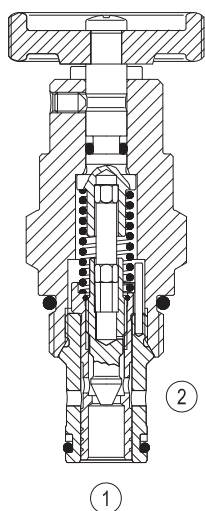
Technical data	
Pressure min. - max.	14 - 350 bar (200 - 5000 psi)
Flow range	see "Regulated flow range" table
Fluid temperature range	-30 to 100 °C (-22 to 212 °F)
Installation torque	41 - 47 Nm (30 - 35 ft-lbs)
Weight ¹⁾	0.27 kg (0.59 lbs)
Cavity	CA-10A-2N (see data sheet 18325-70)
Lines bodies and standard assemblies	Please refer to section "Hydraulic integrated circuit" or consult factory
Seal kit ²⁾	Code: RG10A2010520100 material no: R90111363
Fluids	Mineral-based or synthetics with lubricating properties at viscosities of 10 to 500 mm ² /s (cSt)
Recommended degree of fluid contamination	Nominal value max. 10µm (NAS 8) / ISO 4406 19/17/14
Installation	No restrictions
Other Technical Data	See data sheet 18350-50

Description

constant flow rate, regardless of system pressures, is established from 1 to 2 while a minimum pressure differential of 14 bar (200 psi) exists between the two ports. Output flow can be varied from closed to the minimal maximum rating for the valve. Flow from 2 to 1 is limited by the diameter of the selected control orifice and is not pressure compensated.

- 1) Standard version X=04 type
- 2) Only external seals for 10 valves

Characteristic curve



2 **VRFB-10A** | Flow control, 2-way pressure compensated

Dimensions [mm (inches)]

Ordering code

04.02.02	X	85	Z	00	*
-----------------	----------	-----------	----------	-----------	----------

Flow control, 2-way pressure compensated fully adjustable

Series 0/A to L
unchanged performances and dimensions

Version and options standard

Adjustments

- 04** Handknob
- 40** Calibrated handknob

	Regulated flow range l/min. (gpm)
20	0.1-20 (0.03-5.28)
40	0.2-30 (0.05-7.93)

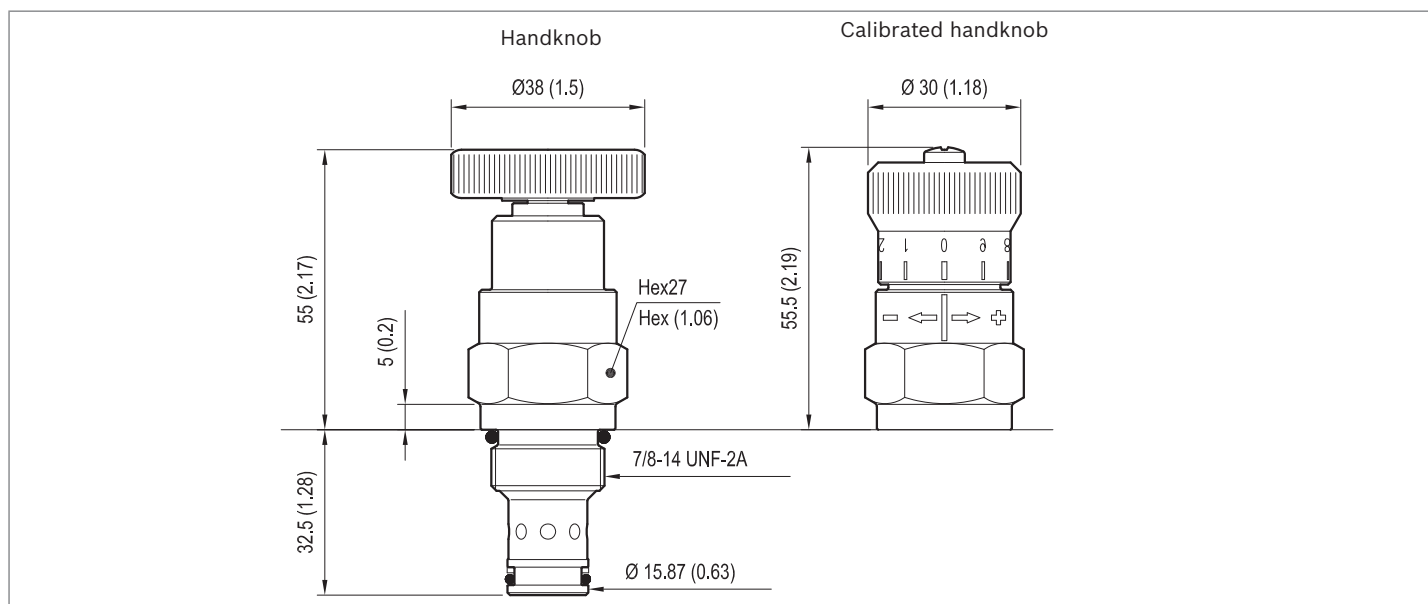
85 Common cavity, Size 10

Preferred types

Type	Material number
04020204852000A	R930055368
04020204854000A	R930055371

Type	Material number
04020240852000A	R930055372
04020240854000A	R930055373

Dimensions



Flow control, 3-way pressure compensated,
combination type fully adjustable
Common cavity, Size 10

VRFD-10A

04.04.02 - X - 85 - Z

RE 18321-20

Edition: 03.2016

Replaces: 09.2009



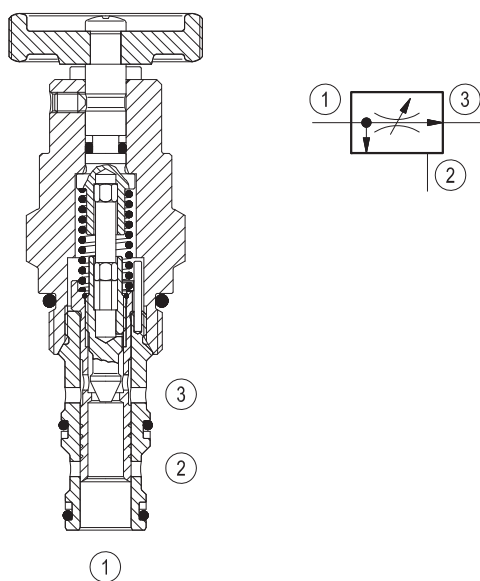
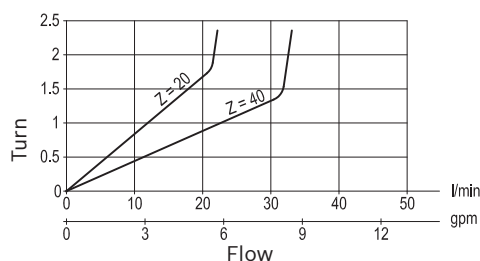
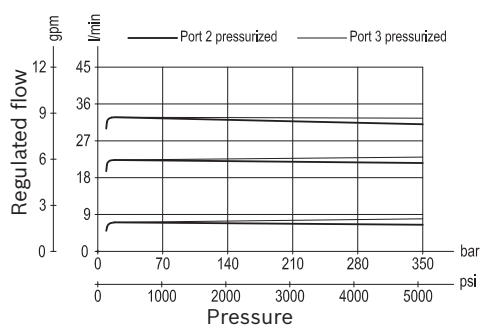
Description

A constant flow rate, regardless of system pressures, is established from 1 to 3 while a minimum pressure differential of 14 bar (200 psi) exists between the two ports. Input flow supplied to 1 in excess of the regulated output at 3 is by-passed to 2. Output flow can be varied from closed to the nominal maximum rating for the valve. Flow from 3 to 1 is limited by the diameter of the selected control orifice and is not pressure compensated. Flow from 2 to 1 is not permitted.

Technical data	
Pressure min. - max.	14 - 350 bar (200 - 5000 psi)
Max. inlet flow	60 l/min. (16 gpm)
Flow range	see "Regulated flow range" table
Fluid temperature range	-30 to 100 °C (-22 to 212 °F)
Installation torque	41 - 47 Nm (30 - 35 ft-lbs)
Weight ¹⁾	0.26 kg (0.57 lbs)
Cavity	CA-10A-3N (see data sheet 18325-70)
Lines bodies and standard assemblies	Please refer to section "Hydraulic integrated circuit" or consult factory
Seal kit ²⁾	Code: RG10A3010520100 material no: R901111369
Fluids	Mineral-based or synthetics with lubricating properties at viscosities of 10 to 500 mm ² /s (cSt)
Recommended degree of fluid contamination	Nominal value max. 10µm (NAS 8) / ISO 4406 19/17/14
Installation	No restrictions
Other Technical Data	See data sheet 18350-50

- 1) Standard version X=04 type
- 2) Only external seals for 10 valves

Characteristic curve



Ordering code

04.04.02	X	85	Z	00	*
-----------------	----------	-----------	----------	-----------	----------

Flow control, 3-way pressure compensated combination type fully adjustable

Series 0/A to L
unchanged performances and dimensions

Version and options standard

Adjustments

04 Handknob

40 Calibrated handknob

Regulated flow range
l/min. (gpm)

20 0.1-20 (0.03-5.28)

40 0.2-30 (0.05-7.93)

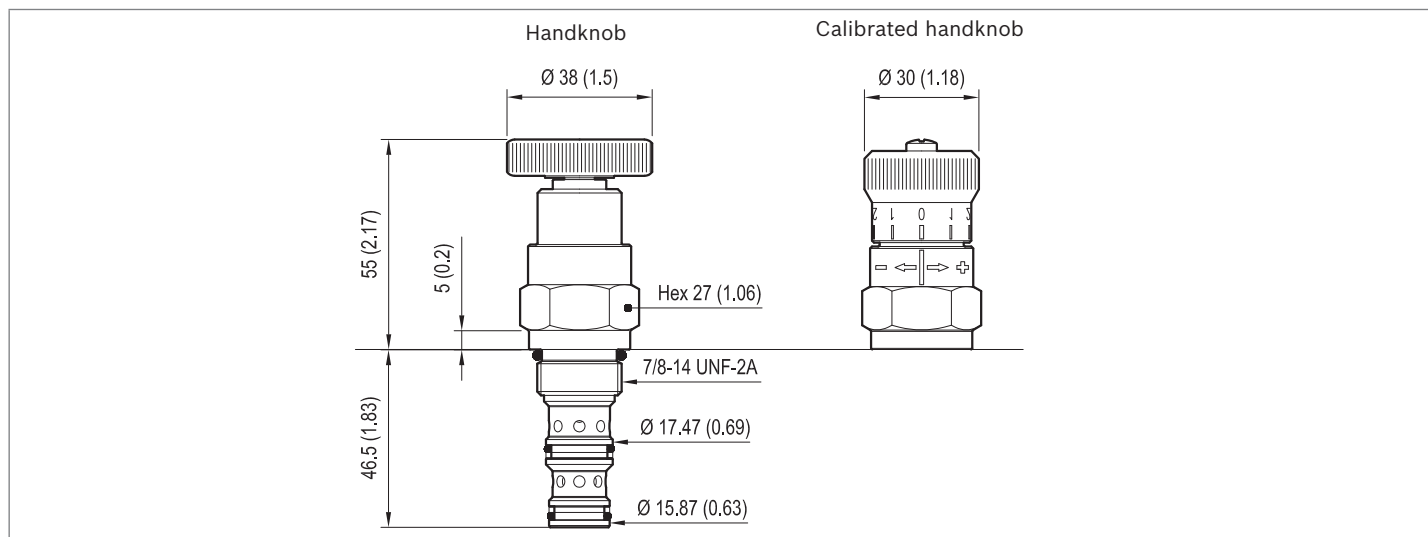
85 Common cavity, Size 10

Preferred types

Type	Material number
04040204852000A	R930055365
04040204854000A	R930055362
04040240852000A	R930055366
04040240854000A	R930055363

Type	Material number

Dimensions

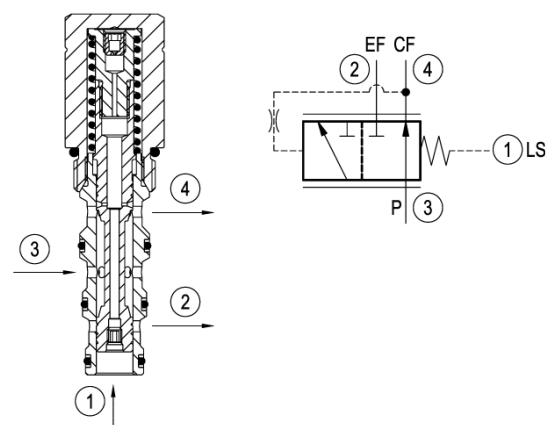


Logic element, pressure compensator with static load sense

Common cavity, Size 10

VRLA-10A-S

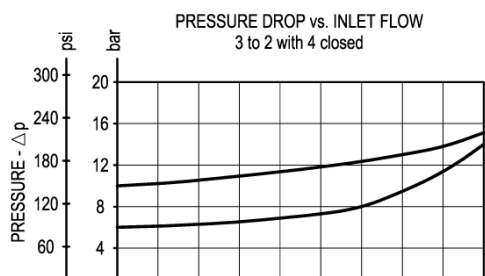
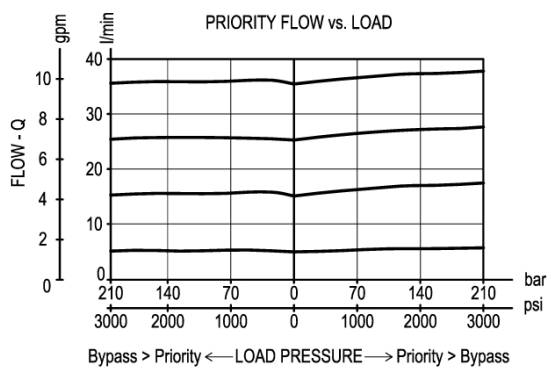
04.84.09.00 - 85 - Z



Description

The valve delivers priority flow, from 0 to max. available, on demand to port 4, while compensating for load changes downstream. In neutral, all input flow at 3 is given to the priority port 4. Pressure at 4 is applied to the spool against a spring force so that increasing pressure causes increasing by-pass of input flow to port 2. Load sense pressure at port 1, obtained between the downstream control and the load, assists the spring, and moves the spool back toward supplying priority flow. Comparison between priority outlet and LS pressure seeks a constant differential pressure over the control valve. As load and flow control change, the priority flow is increased or decreased to satisfy the demand establishing that differential.

Performance

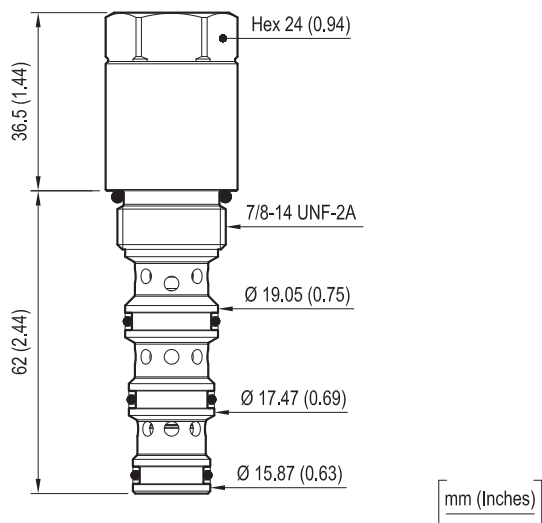


Technical data

Max. operating pressure	bar (psi)	350 (5000)
Max. intel flow	l/min. (gpm)	45 (12)
Max. priority flow	l/min. (gpm)	30 (8) for Z=05 version 40 (11) for Z=10 version
Fluid temperature range	°C (°F)	-30 to 100 (-22 to 212)
Installation torque	Nm (ft-lbs)	41-47 (30-35)
Weight	kg (lbs)	0.22 (0.49)
Cavity		CA-10A-4N see data sheet RE 18325-70
Seal kit (*)	code material no.	RG10A4010530100 R901111373
Fluids		Mineral-based or synthetics with lubricating properties at viscosities of 10 to 500 mm ² /s (cSt)
Filtration		Nominal value max. 10µm (NAS 8) ISO 4406 19/17/14
Installation		No restrictions
Other Technical Data		See data sheet RE 18350-50

(*) Only external seals for 10 valves

Dimensions



Ordering code

04.84.09.00	85	Z	00	*
-------------	----	---	----	---

Logic element, pressure compensator with static load sense

Common cavity, Size 10

Series 0/A to L
unchanged performances and dimensions

Version and options standard

SPRINGS	
Bias spring bar (psi)	
= 05	5.5 (80) ± 20%
= 10	10 (145) ± 15%

Solenoid operated valves pilot operated poppet type
2-way normally closed
Common cavity, Size 08

VEI-16-08A-NC

OD.15 - X - 18 - Y - Z

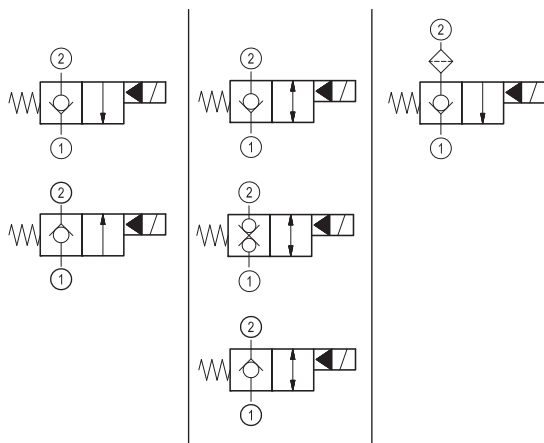
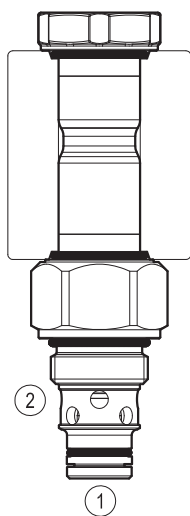
RE 18323-25

Edition: 04.2017

Replaces: 03.2017



PATENT PENDING



Technical data

New VEI-16 family incorporates a new solenoid concept providing excellent performance and enables cartridges to work in severe environment. Cartridges also incorporates advanced design of hydraulic parts providing excellent hydraulic performance.

Technical data

General	
Weight	0.15 kg (0.33 lbs)
Installation orientation	Unrestricted
Ambient temperature range	-30 to 90 °C (-22 to 194 °F)
Hydraulic	
Max. operating pressure	350 bar (5000 psi)
Flow range	0.5 - 40 l/min (0.1 - 11 gpm)
Fatigue cycle life	2 million cycles at 350 bar 150000 cycles at 420 bar
Max. internal leakage:	5 drops/min. for X= 01,05,07 20 drops/min. for X= 31,03,09
Switching time	Opening ≤ 50 ms Closing ≤ 100 ms
Fluid temperature range	-20 to 80 °C (-4 to 176 °F)
Fluids: Mineral-based or synthetics with lubricating properties at viscosities of 20 to 380 mm ² /s (cSt)	
Installation torque	39 - 51 Nm (29 - 38 ft-lbs)
Recommended degree of fluid contamination	Nominal value max. 10 µm (NAS 8) ISO 4406 19/17/14
MTTFd	150 years see RE 18350-51
Cavity	CA-08A-2N see 18325-70
Seal kit for X=01,05,07	code material no. RG08A2010520100 R901101437
Seal kit for X=31,03,09	code material no. RG08A2010530100 R901101544
Seal kit coil	code material no. RG01Z0010000100 R930058940
Other technical data	See data sheet 18350-50
Electrical	
Type of voltage	DC voltage
Coil type	D36
Supply voltage	See data sheet 18325-90
Voltage tolerance against ambient temperature	See characteristic curve
Power consumption	20 W
Type of protection	See data sheet 18325-90
Note: Coils must be ordered separately	

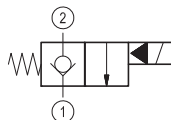
Ordering code

OD.15	X	18	Y	Z	0000	*
--------------	----------	-----------	----------	----------	-------------	----------

Solenoid operated valves
pilot operated poppet type
2-way normally closed

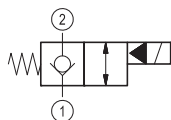
Series 0/A to L
unchanged performances and dimensions

monodirectional type



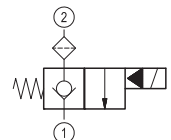
01

bidirectional type



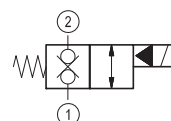
05

monodirectional type with filter



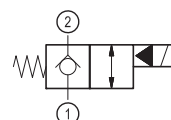
07

bidirectional type



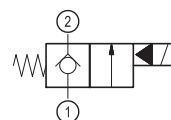
31

bidirectional type



03

monodirectional type



09

0 = With buna seal
8 = With buna seal and extra spring only for **05**
V = With Viton seal
P = With buna seal and protective cap for override version **D**
T = With Viton seal and protective cap for override version **D**

A = Standard
D = Knob style manual override
E = Pull style manual override
F = Hand operated pull style manual override

Common cavity: CA-08A-2N

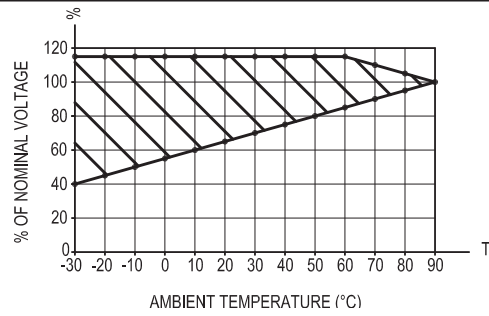
Preferred types

Type	Material number
OD150118A000000	R930058697
OD150118D000000	R930059941
OD150518A000000	R930058427
OD150518D000000	R930058344
OD150518DP00000	R930059757
OD150718A000000	R930058338
OD150718D000000	R930058336
OD150718DP00000	R930058529
OD150118E000000	R930060958
OD150518E000000	R930060966

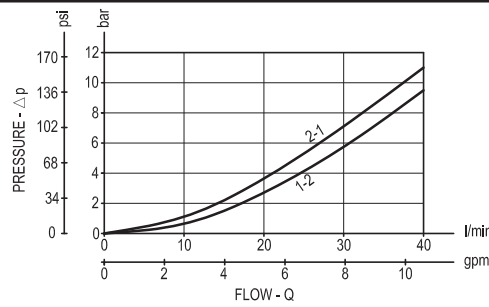
Type	Material number
OD150718E000000	R930060973
OD153118A000000	R930058334
OD153118D000000	R930058898
OD153118E000000	R930065030
OD150518A800000	R930063229
OD150318A000000	R930062828
OD150918A000000	R930064361
OD153118DP00000	R930066685
OD150518D800000	R930063959

Characteristic curves

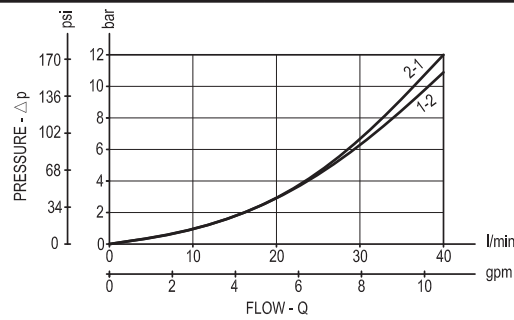
All Versions - Admissible supply voltage Vs. Ambient temperature at 100% duty cycle



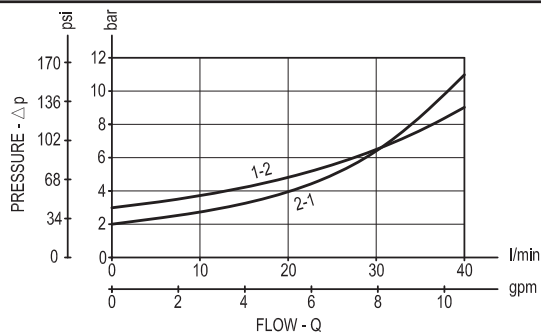
Versions 01, 05, 07



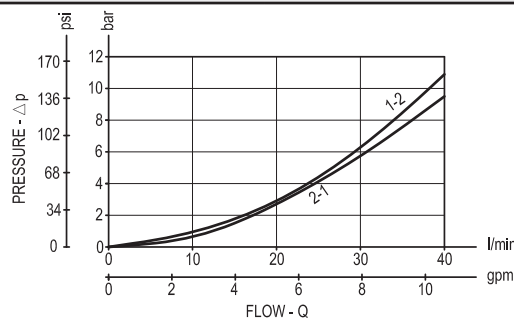
Version 31



Version 05 with extra spring

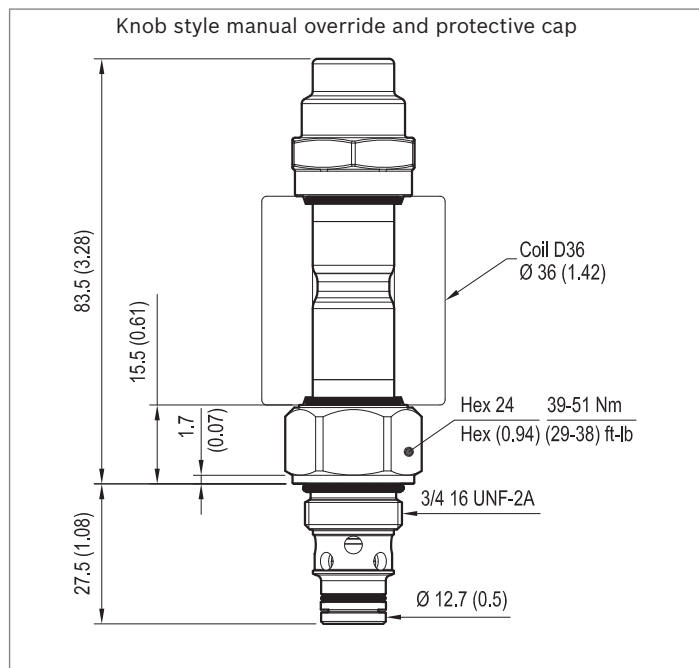
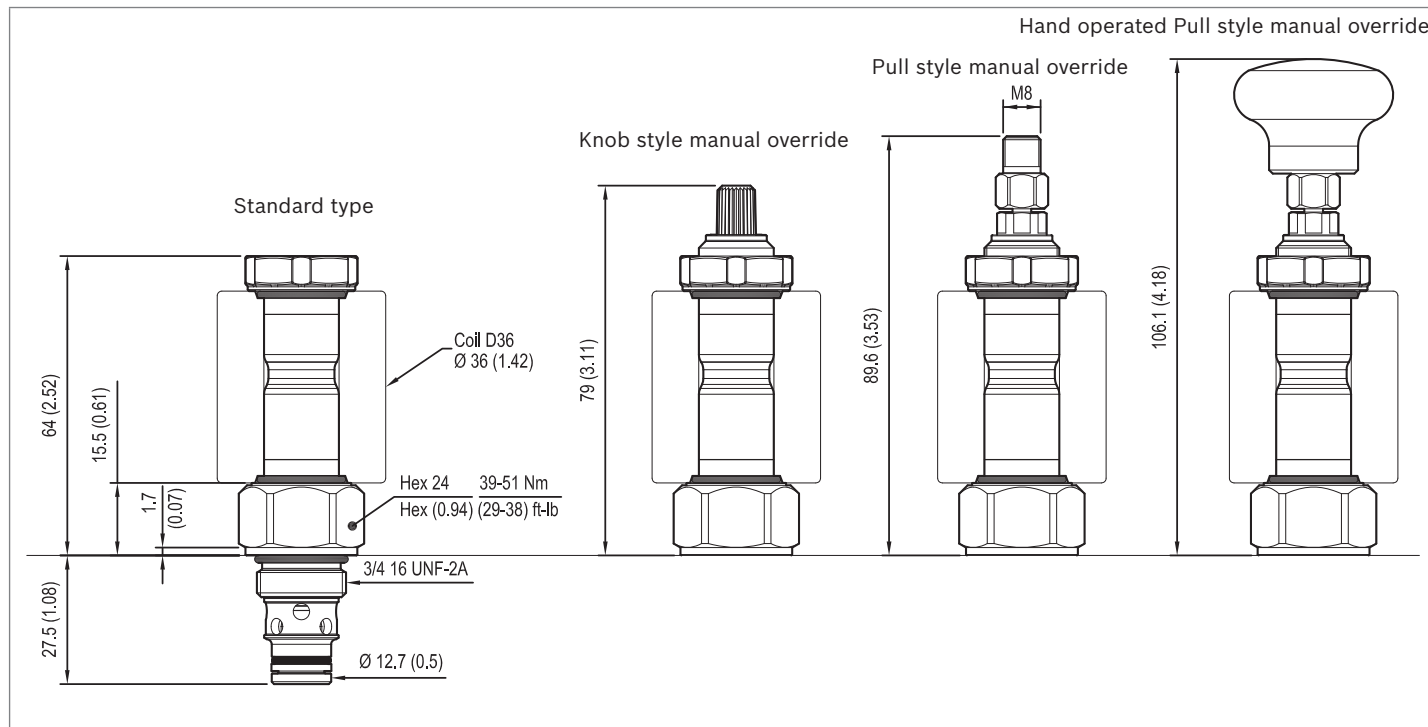


Versions 03, 09



Dimensions

Solenoid operated valves, poppet 2-way normally closed



Solenoid operated valves pilot operated poppet type
2-way normally open
Common cavity, Size 08

VEI-8I-06-NA

OD.15 - X - 18 - Y - S0

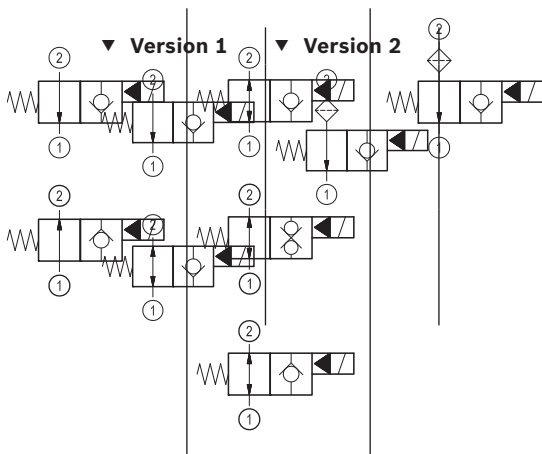
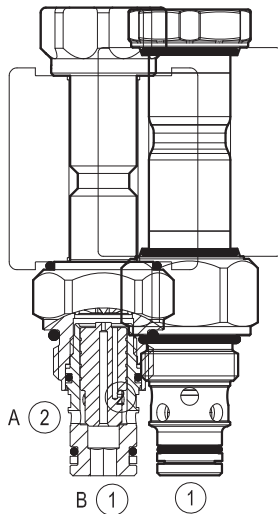
RE 18323-05

Edition: 01.2016

Replaces: 10.2013



PATENT PENDING



Technical data

~~Technical data~~ family incorporates a new solenoid concept providing excellent performance and enables cartridges to be advanced design of hydraulic parts providing excellent hydraulic performance.

Installation orientation	Optional
Ambient temperature range	-30 to 60 °C (-22 to 140 °F)

Hydraulic	
Weight	0,15 kg (0,33 lbs)
Max. operating pressure	350 bar (5000 psi)
Max. proof pressure	420 bar (6000 psi)
Ambient temperature range	-30 to 80 °C (-22 to 194 °F)
Flow range	0,5 - 30 l/min (0,1 - 8 gpm)
Fatigue cycle life	1 million cycles at 350 bar
Max. internal leakage	350 drops/min (0,1 - 1,1 gpm)
Flow range	0,5 - 40 l/min (0,1 - 11 gpm)
Fatigue cycle life	2 million cycles at 350 bar
Fluids: Mineral based or synthetics with lubricating properties at viscosities of 20 to 380 mm ² /s (cSt)	150000 cycles at 420 bar
Max. installation torque:	5,9 Nm (51 in-lb) for X= 32,10,04
Recommended degree of fluid contamination	Nominal value max. 10 µm
Switching time	0,008 s (see 1835-19/17/14)
MTTFd	Opening ≤ 30 ms 150 years see RE 18350-51
Fluid temperature range	-20 to 80 °C (-4 to 176 °F)
Fluids: Mineral based or synthetics with lubricating properties at viscosities of 20 to 380 mm ² /s (cSt)	Please refer to section "Hydraulic integrated circuit"
Installation torque	39 Nm (35 ft-lb)
Recommended degree of fluid contamination	code material no. N061010374406 19/17/14
Electrical coil	code 150 V 230 V 240 V see RE 18350-51
Cavity	code material no. R000002057 see 18325-70
Other technical data	code material no. R000001322010 see 18350-50

Electrical	
Type of voltage	code material no. R0000010530100
Coil type	code material no. R901101544 S8-356 see 18325-90
Seal kit coil	code material no. R90170010000100
Supply voltage	See data sheet 18325-90
Nominal voltage	± 10%
Other technical data	See data sheet 18350-50
Power consumption	
Duty cycle coil	See characteristic curves %
Type of voltage	DC voltage
Type of protection	See data sheet 18325-90
Coil type	D36
Note: Coils must be ordered separately	
Supply voltage	See data sheet 18325-90
Voltage tolerance against ambient temperature	See characteristic curve
Power consumption	20 W
Type of protection	See data sheet 18325-90
Note: Coils must be ordered separately	

Ordering code

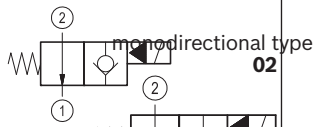
OD.15	X	18	Y	Z	0000	*
--------------	----------	-----------	----------	----------	-------------	----------

Solenoid operated valves
pilot operated poppet type
2-way normally open

OD.15	X	18	Y	S0
--------------	----------	-----------	----------	-----------

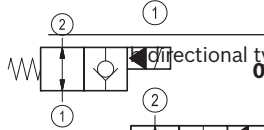
Series O/A to L
unchanged performances and dimensions

Solenoid operated valves
pilot operated poppet type
monodirectional type
2-way normally open



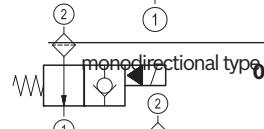
monodirectional type
02

bidirectional type



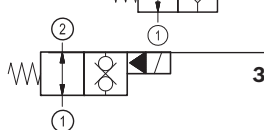
02

monodirectional type with filter



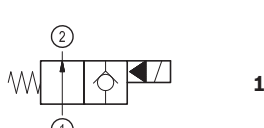
06

bidirectional type



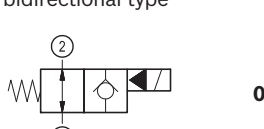
08

monodirectional type



10

bidirectional type

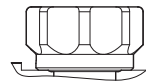


04

0 = With buna seal
V = With Viton seal
P = With buna seal and protective cap for override version **B** and **C**
T = With Viton seal and protective cap for override version **B** and **C**

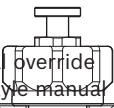
standard type

1I



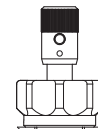
knob style manual override

A = Standard
B = Push style manual override
C = Push and twist style manual override



Cable operated pull style override

1M



Common cavity: CA-08A-2N

Common cavity: CA-08A-2N

Preferred types

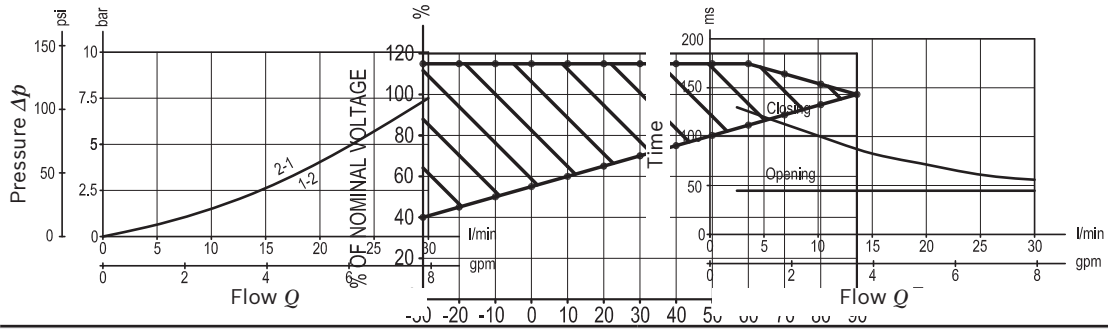
Type	Material number
OD150218A000000	R930059442
OD150218B000000	R990080103
OD150218C000000	R990080104
OD150218CP00000	R990080598
OD150618A000000	R990081433
OD150618B000000	R990081434
OD150618CP00000	R990080129
OD150818A000000	R930058337
OD150818B000000	R930058340
OD150818C000000	R930060583

Type	Material number
OD153218A000000	R930064101
OD150218C000000	R990081046
OD150418A000000	R990081349
OD150418B000000	R990081184
OD150418C000000	R930066185
OD150618CP00000	R930060905
OD153218CP00000	R930065328
OD151018B000000	R930066186
OD151018C000000	R930066187
OD150618AV00000	R930060900

Characteristic curves

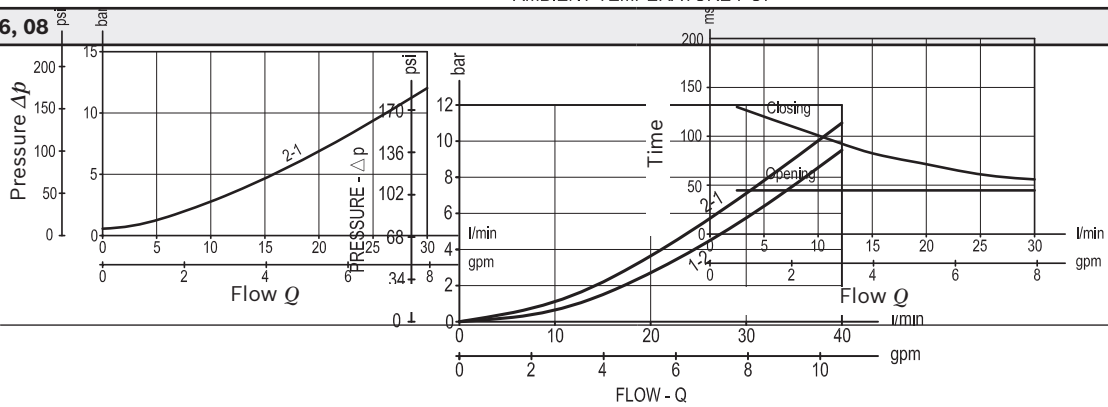
Version 1

Standard

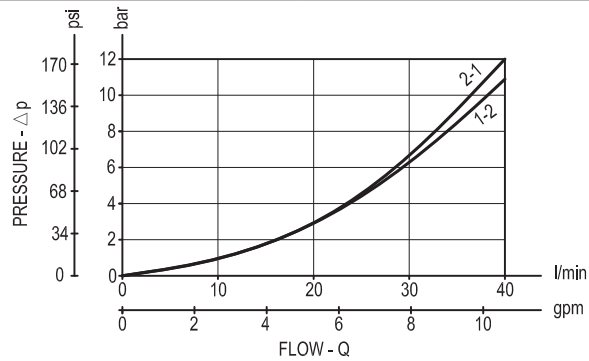


Version 2

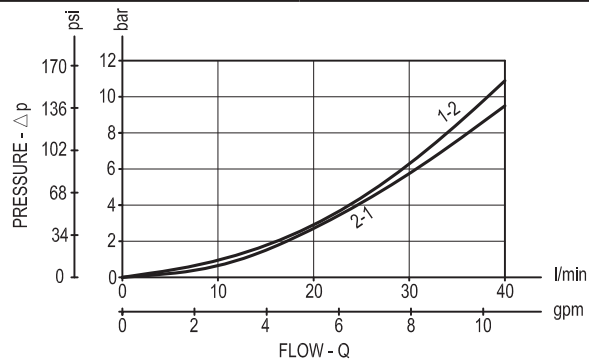
Standard
Versions 02, 06, 08



Version 32



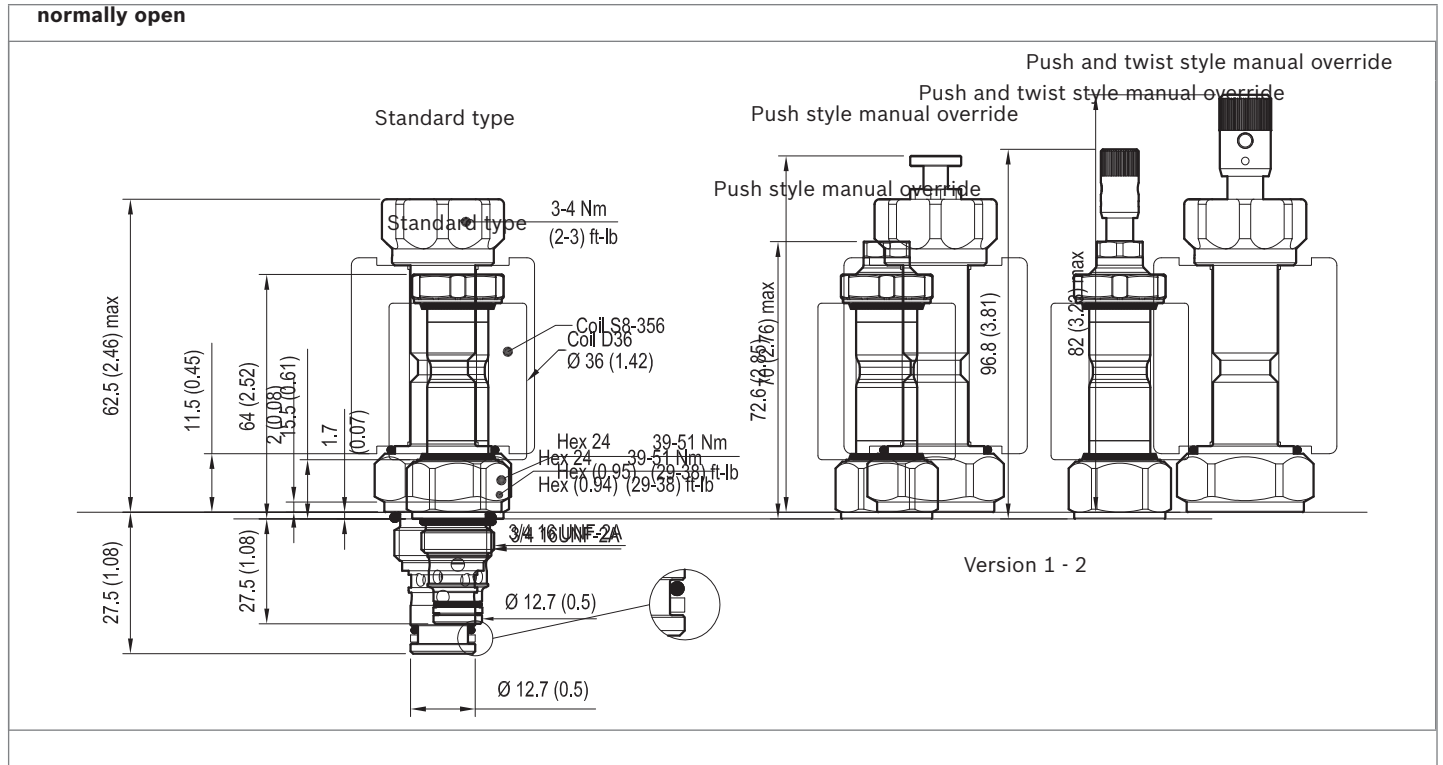
Version 04, 10



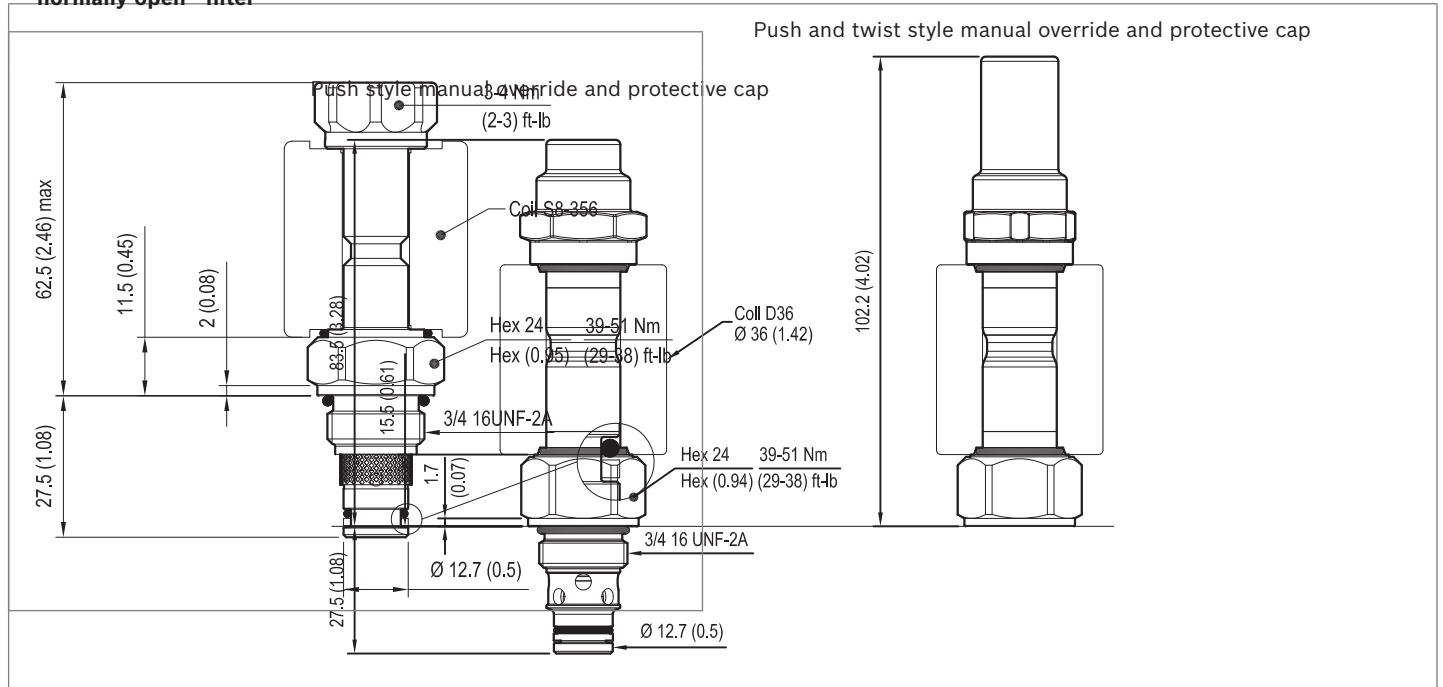
Dimensions

Solenoid operated valves, poppet 2-way

Version 1: Solenoid operated valve, poppet 2-way normally open



Version 2: Solenoid operated valve, poppet 2-way normally open - filter



Solenoid operated valves pilot operated poppet type
 2-way normally closed
 Special cavity, 017-E

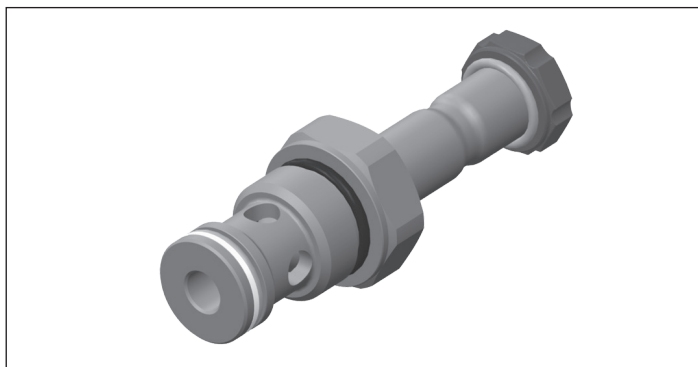
VEI-16-NC

OD.15 - X - 17 - Y - Z

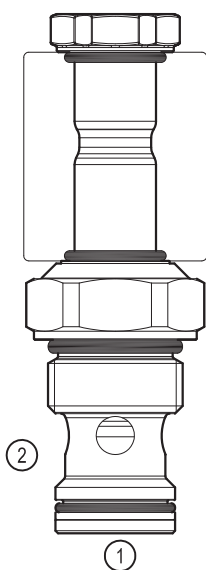
RE 18323-34

Edition: 10.2017

Replaces: 09.2017



PATENT PENDING

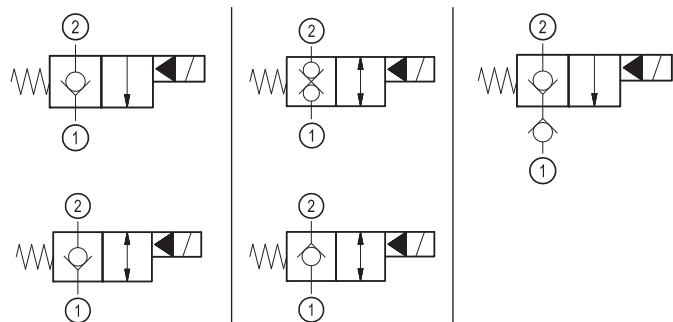


Technical data

New VEI-16 family incorporates a new solenoid concept providing excellent performance and enables cartridges to work in severe environment. Cartridges also incorporates advanced design of hydraulic parts providing excellent hydraulic performance.

Technical data

General	
Weight	0.25 kg (0.55 lbs)
Installation orientation	Unrestricted
Ambient temperature range	-30 to 90 °C (-22 to 194 °F)
Hydraulic	
Max. operating pressure	350 bar (5000 psi)
Flow range	2 - 70 l/min (0.53 - 18 gpm)
Fatigue cycle life	2 million cycles at 350 bar
Max. internal leakage:	20 drops/min.
Installation torque	54 - 66 Nm (40 - 49 ft-lbs)
Switching time	Opening ≤ 50 ms Closing ≤ 100 ms
Fluid temperature range	-20 to 80 °C (-4 to 176 °F)
Fluids: Mineral-based or synthetics with lubricating properties at viscosities of 20 to 380 mm ² /s (cSt)	
Recommended degree of fluid contamination	Nominal value max. 10 µm (NAS 8) ISO 4406 19/17/14
MTTFD	150 years see RE 18350-51
Special cavity	017-E see 18325-75
Seal kit for X= 01,05,11	code material no. RG17E201052010 R934003562
Seal kit for X= 03,31	code material no. RG17E201053010 R934003563
Seal kit coil	code material no. RG01Z0010000100 R930058940
Other technical data	See data sheet 18350-50
Electrical	
Type of voltage	DC voltage
Coil type	D36
Supply voltage	See data sheet 18325-90
Voltage tolerance against ambient temperature	See characteristic curve
Power consumption	20 W
Type of protection	See data sheet 18325-90
Note: Coils must be ordered separately	



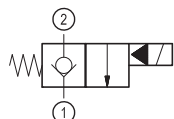
Ordering code

OD.15	X	17	Y	Z	0000	*
--------------	----------	-----------	----------	----------	-------------	----------

Solenoid operated valves
pilot operated poppet type
2-way normally closed

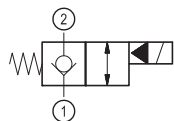
Series O/A to L
unchanged performances and dimensions

monodirectional type



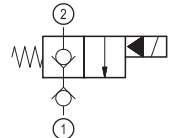
01

bidirectional type



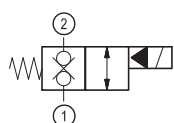
05

monodirectional type with check



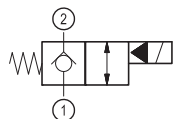
11

bidirectional type



31

bidirectional type



03

O = With buna seal
V = With Viton seal
P = With buna seal and protective cap for override version **D**
T = With Viton seal and protective cap for override version **D**

A = Standard
D = Knob style manual override
E = Pull style manual override
F = Hand operated pull style manual override

Special cavity: 017-E

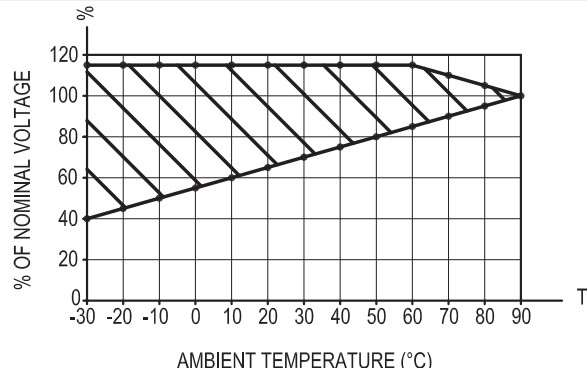
Preferred types

Type	Material number
OD150117A000000	R930062337
OD150117D000000	R930065472
OD150517A000000	R930062338
OD150517D000000	R930064099
OD151117A000000	R930064362
OD150517DP00000	R930066439
OD153117A000000	R930065028
OD153117D000000	R930067162

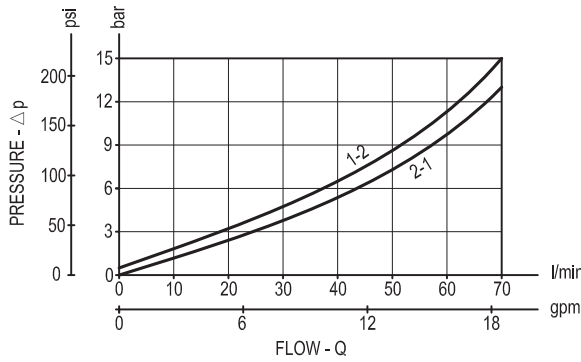
Type	Material number
OD150317A000000	R930066965
OD150317D000000	R930066967

Characteristic curves

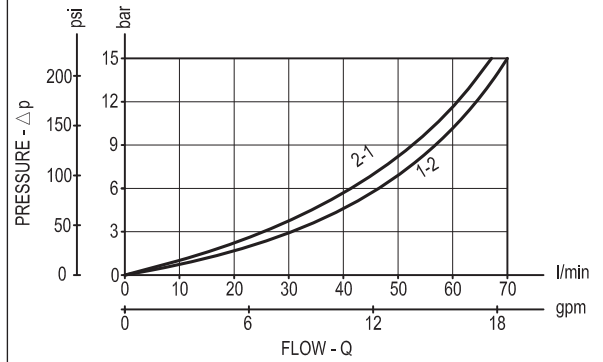
All Versions - Admissible supply voltage Vs. Ambient temperature at 100% duty cycle



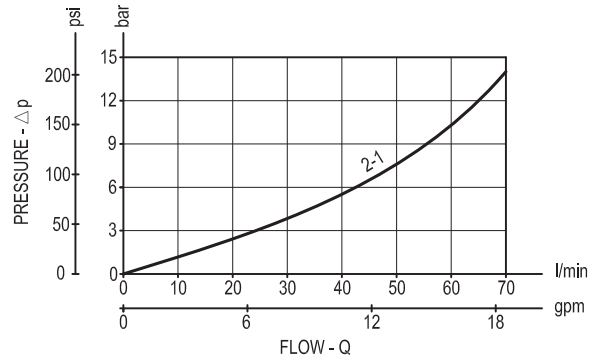
Versions 01, 05



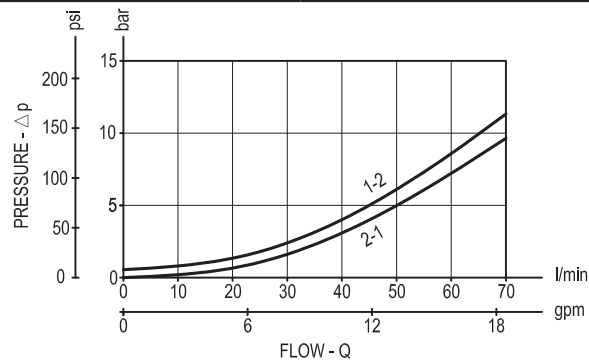
Version 03



Version 11

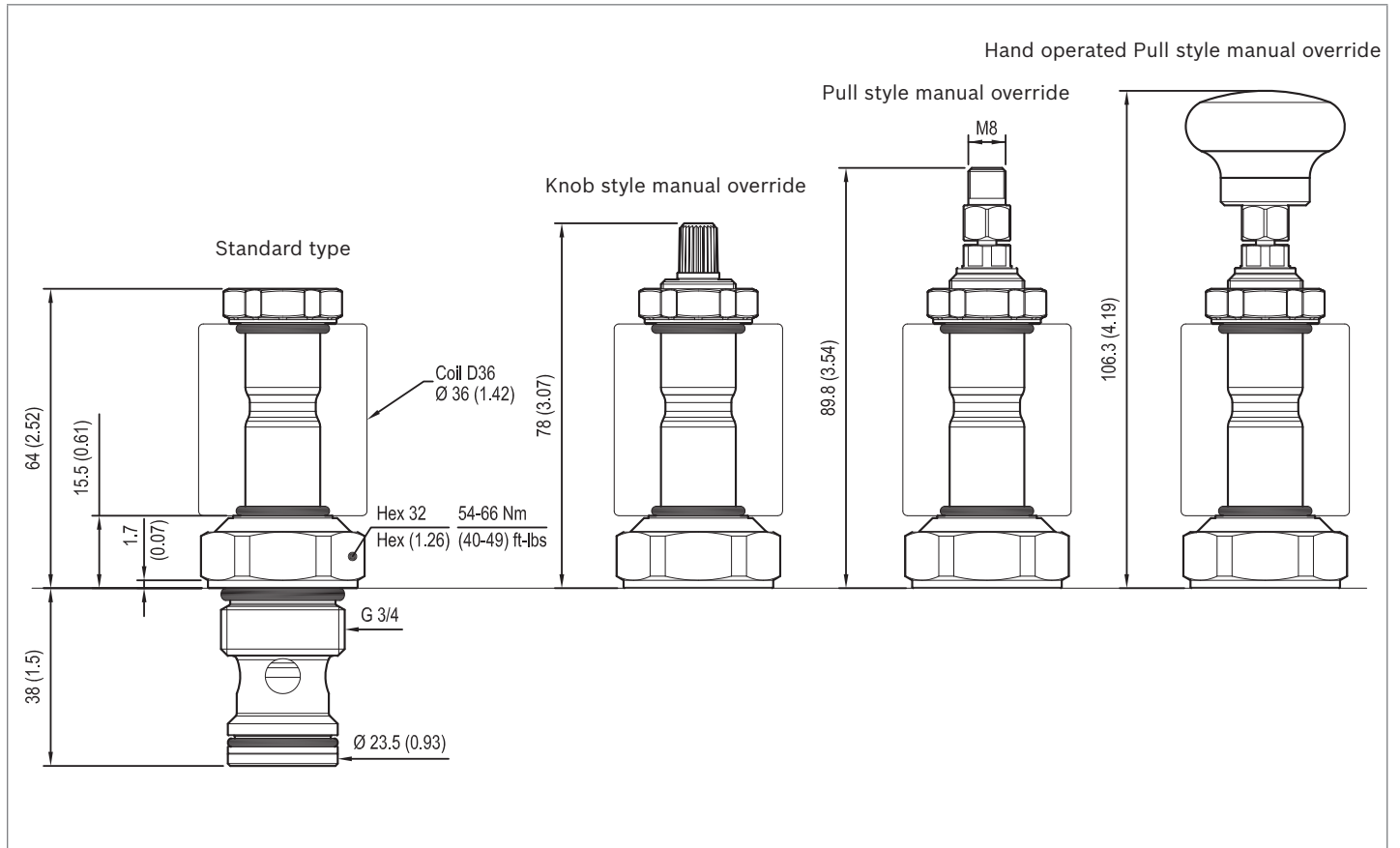


Version 31



Dimensions

**Solenoid operated valves pilot operated poppet type
2-way normally closed**



Solenoid operated valves pilot operated poppet type
 2-way normally open
 Special cavity, 017-E

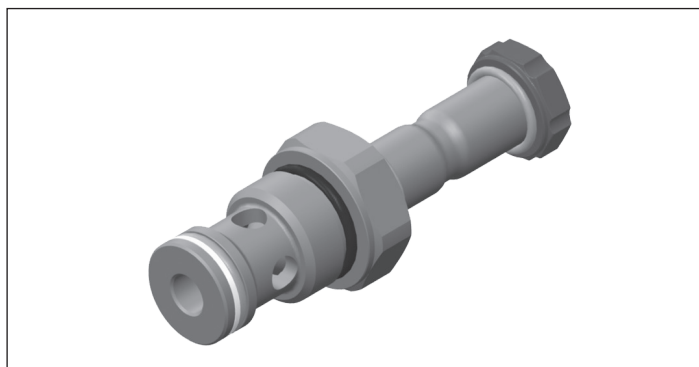
VEI-16-NA

OD.15 - X - 17 - Y - Z - 00

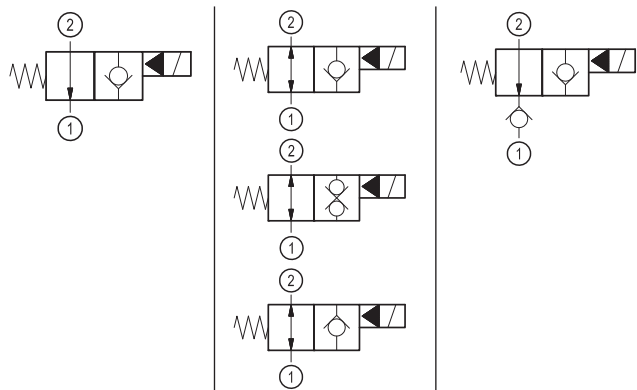
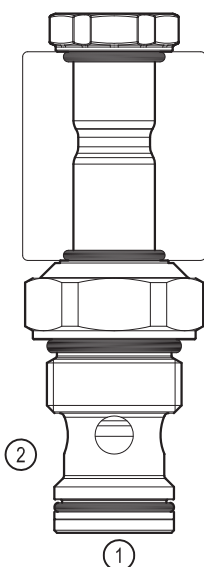
RE 18323-35

Edition: 12.2017

Replaces: 11.2017



PATENT PENDING



Technical data

New VEI-16 family incorporates a new solenoid concept providing excellent performance and enables cartridges to work in severe environment. Cartridges also incorporates advanced design of hydraulic parts providing excellent hydraulic performance.

Technical data

General	
Weight	0.25 kg (0.55 lbs)
Installation orientation	Unrestricted
Ambient temperature range	-30 to 90 °C (-22 to 194 °F)
Hydraulic	
Max. operating pressure	350 bar (5000 psi)
Flow range	2 - 70 l/min (0.53 - 18 gpm)
Fatigue cycle life	2 million cycles at 350 bar
Max. internal leakage:	20 drops/min.
Installation torque	54 - 66 Nm (40 - 49 ft-lbs)
Switching time	Opening ≤ 50 ms
	Closing ≤ 100 ms
Fluid temperature range	-20 to 80 °C (-4 to 176 °F)
Fluids: Mineral-based or synthetics with lubricating properties at viscosities of 20 to 380 mm ² /s (cSt)	
Recommended degree of fluid contamination	Nominal value max. 10 µm (NAS 8) ISO 4406 19/17/14
MTTFd	150 years see RE 18350-51
Special cavity	017-E see 18325-75
Seal kit for X= 02,06,12	code RG17E201052010 material no. R934003562
Seal kit for X= 04,32	code RG17E201053010 material no. R934003563
Seal kit coil and standard cap	code RG02Z0010000100 material no. R930067869
Seal kit coil and protective cap only for Y=B,C	code RG03Z0010000100 material no. R930067870
Other technical data	See data sheet 18350-50
Electrical	
Type of voltage	DC voltage
Coil type	D36
Supply voltage	See data sheet 18325-90
Voltage tolerance against ambient temperature	See characteristic curve
Power consumption	20 W
Type of protection	See data sheet 18325-90
Note: Coils must be ordered separately	

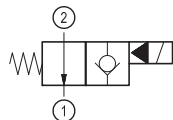
Ordering code

OD.15	X	17	Y	Z	0000	*
--------------	----------	-----------	----------	----------	-------------	----------

Solenoid operated valves
pilot operated poppet type
2-way normally open

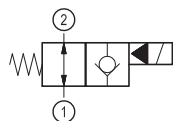
Series O/A to L
unchanged performances and dimensions

monodirectional type



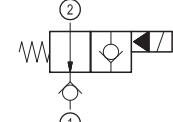
02

bidirectional type



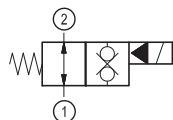
06

monodirectional type with check



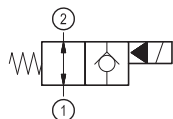
12

bidirectional type



32

bidirectional type



04

0 = With buna seal
V = With Viton seal
P = With buna seal and protective cap for override version **B** and **C**
T = With Viton seal and protective cap for override version **B** and **C**

A = Standard
B = Push style manual override
C = Push and twist style manual override

Special cavity: 017-E

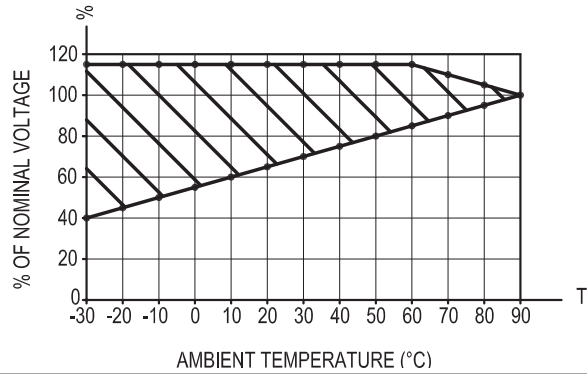
Preferred types

Type	Material number
OD150217A000000	R930063870
OD150217C000000	R930065471
OD150617A000000	R930064265
OD150617B000000	R930064334
OD150617C000000	R930063423
OD151217A000000	R930063907
OD153217A000000	R930064102
OD153217B000000	R930067161

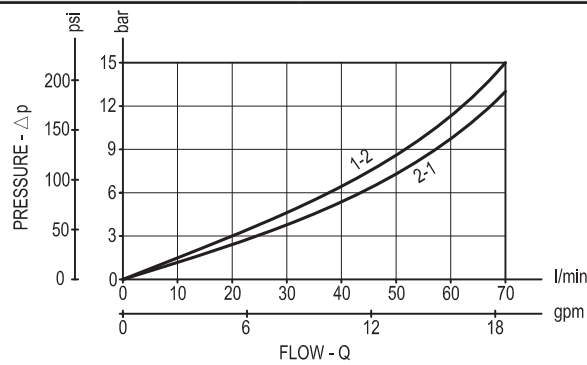
Type	Material number
OD153217BP000000	R930067159
OD153217C000000	R930067160
OD153217CP000000	R930067157
OD150417A000000	R930066966

Characteristic curves

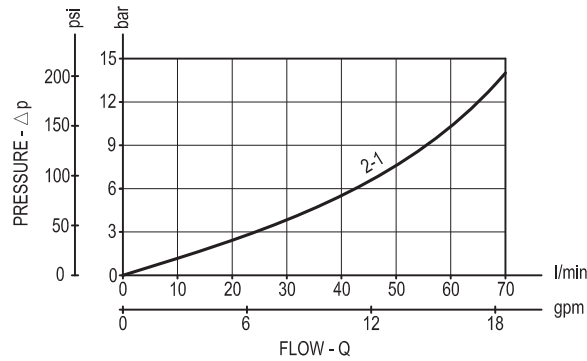
All Versions - Admissible supply voltage Vs. Ambient temperature at 100% duty cycle



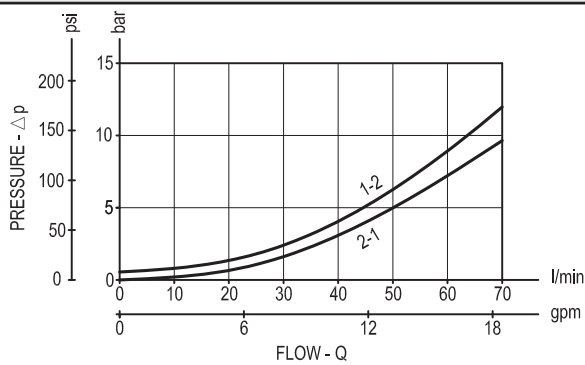
Versions 02, 06



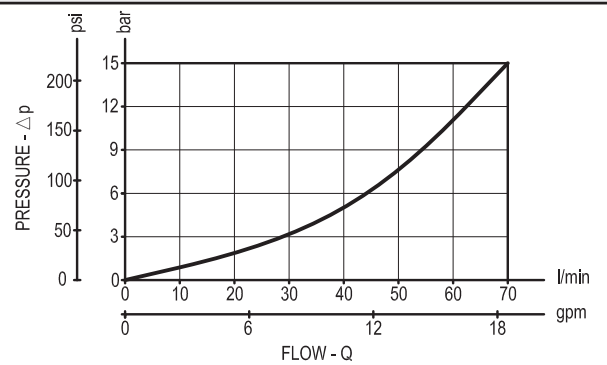
Version 12



Version 32

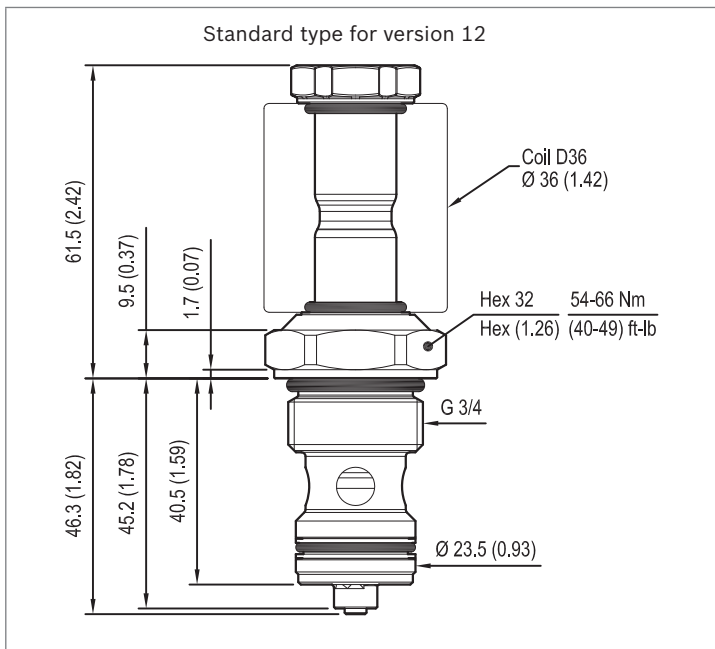
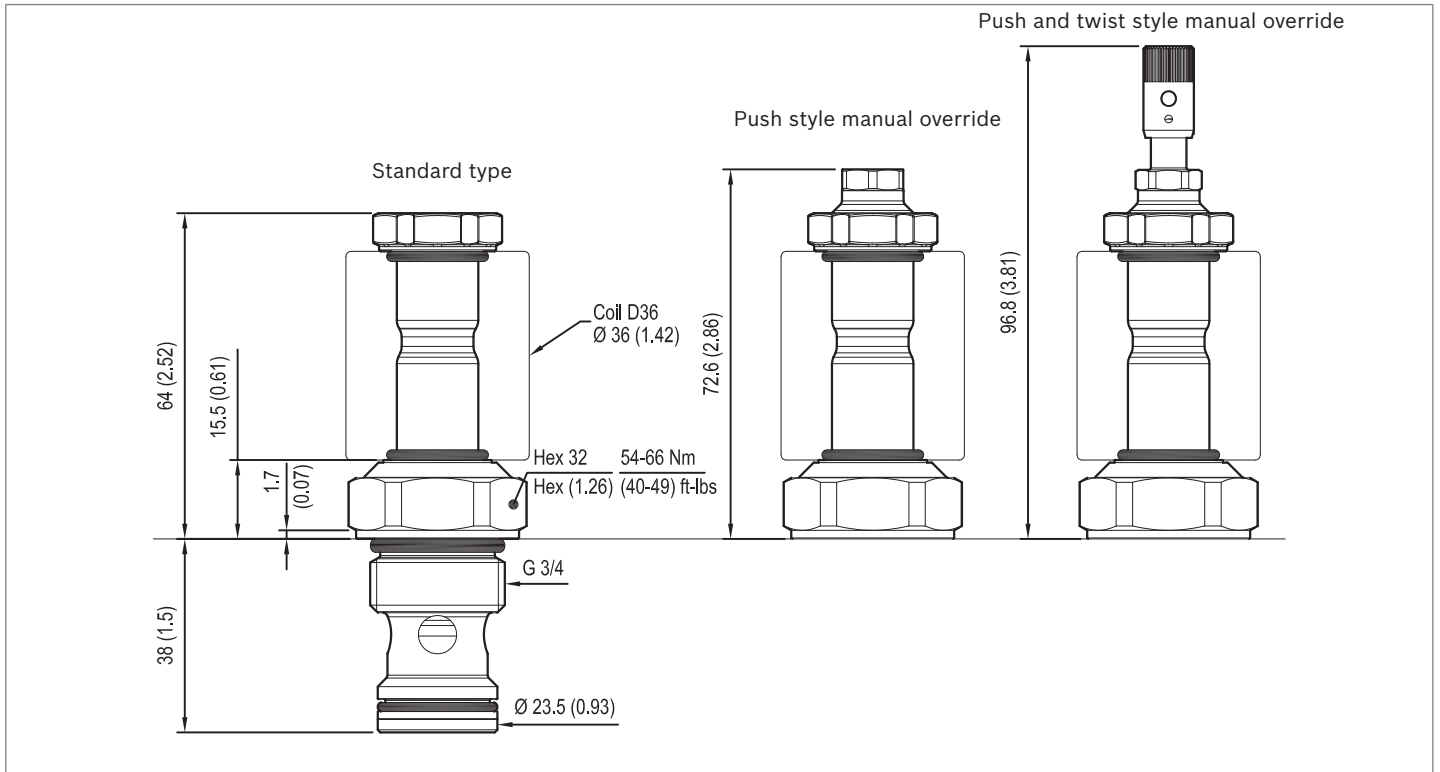


Version 04



Dimensions

Solenoid operated valves, poppet 2-way normally open



Solenoid operated valves pilot operated poppet type
2-way normally closed
Common cavity, Size 10

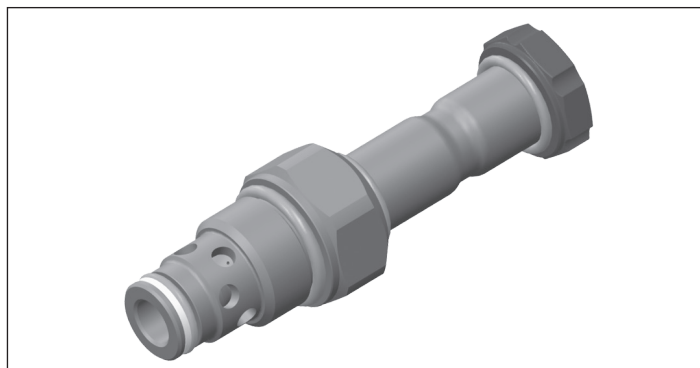
VEI-16-10A-NC

OD.15 - X - 36 - Y - Z

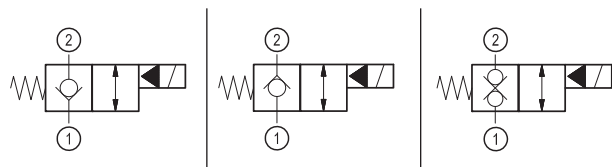
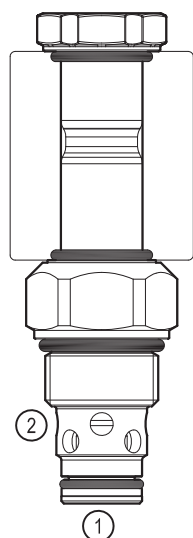
RE 18323-32

Edition: 11.2017

Replaces: 10.2017



PATENT PENDING



Technical data

New VEI-16 family incorporates a new solenoid concept providing excellent performance and enables cartridges to work in severe environment. Cartridges also incorporates advanced design of hydraulic parts providing excellent hydraulic performance.

Technical data

General	
Weight	0.25 kg (0.55 lbs)
Installation orientation	Unrestricted
Ambient temperature range	-30 to 90 °C (-22 to 194 °F)
Hydraulic	
Max. operating pressure	350 bar (5000 psi)
Flow range	2 - 70 l/min (0.53 - 18 gpm)
Fatigue cycle life	2 million cycles at 350 bar
Max. internal leakage:	20 drops/min.
Switching time	Opening ≤ 50 ms Closing ≤ 100 ms
Fluid temperature range	-20 to 80 °C (-4 to 176 °F)
Fluids: Mineral-based or synthetics with lubricating properties at viscosities of 20 to 380 mm ² /s (cSt)	
Installation torque	44 - 56 Nm (33 - 41 ft-lbs)
Recommended degree of fluid contamination	Nominal value max. 10 µm (NAS 8) ISO 4406 19/17/14
MTTFd	150 years see RE 18350-51
Cavity	CA-10A-2N see 18325-70
Seal kit for X=05	code RG10A2010520100 material no. R901111363
Seal kit for X=03, 31	code RG10A2010530100 material no. R901111366
Seal kit coil and standard cap	code RG02Z0010000100 material no. R930067869
Seal kit coil and protective cap only for Y=D	code RG03Z0010000100 material no. R930067870
Other technical data	See data sheet 18350-50
Electrical	
Type of voltage	DC voltage
Coil type	D36
Supply voltage	See data sheet 18325-90
Voltage tolerance against ambient temperature	See characteristic curve
Power consumption	20 W
Type of protection	See data sheet 18325-90
Note: Coils must be ordered separately	

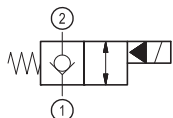
Ordering code

OD.15	X	36	Y	Z	0000	*
--------------	----------	-----------	----------	----------	-------------	----------

Solenoid operated valves
pilot operated poppet type
2-way normally closed

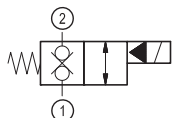
Series 0/A to L
unchanged performances and dimensions

bidirectional type



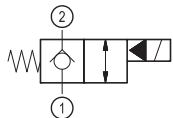
05

bidirectional type



31

bidirectional type



03

0 = With buna seal
8 = With buna seal and extra spring
V = With Viton seal
P = With buna seal and protective cap for override version **D**
T = With Viton seal and protective cap for override version **D**

A = Standard
D = Knob style manual override
E = Pull style manual override
F = Hand operated pull style manual override

Common cavity: CA-10A-2N

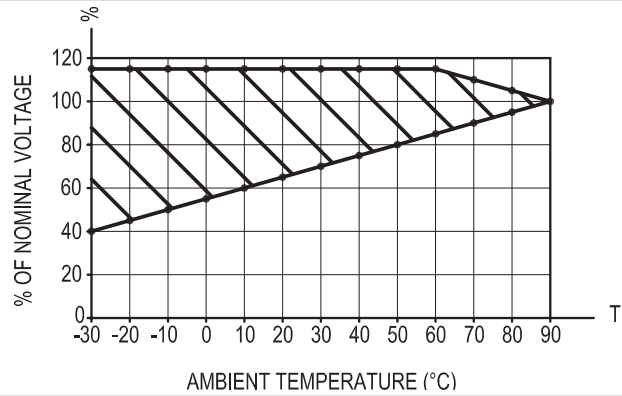
Preferred types

Type	Material number
OD150536A000000	R930063002
OD150536D000000	R930062969
OD150536E000000	R930062947
OD150536F000000	R930062967
OD150536DP00000	R930062946
OD153136A000000	R930065511
OD153136D000000	R930066658
OD150336A000000	R930065691

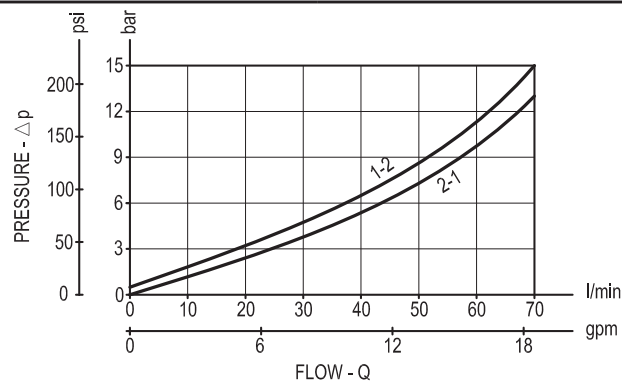
Type	Material number

Characteristic curves

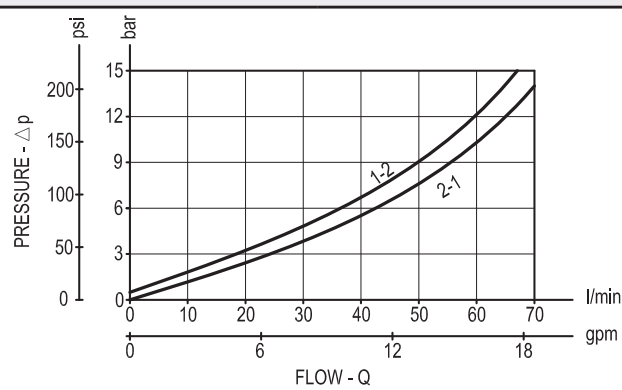
All Versions - Admissible supply voltage Vs. Ambient temperature at 100% duty cycle



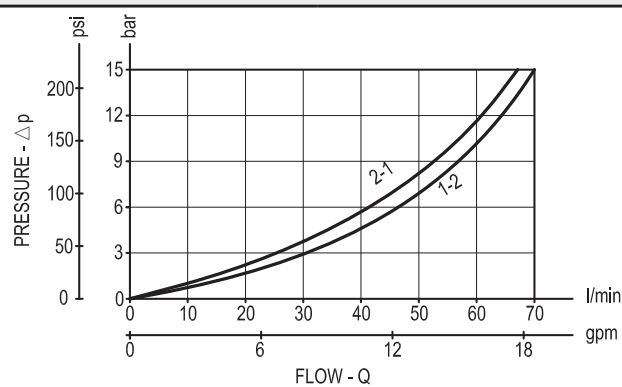
Version 05



Version 31

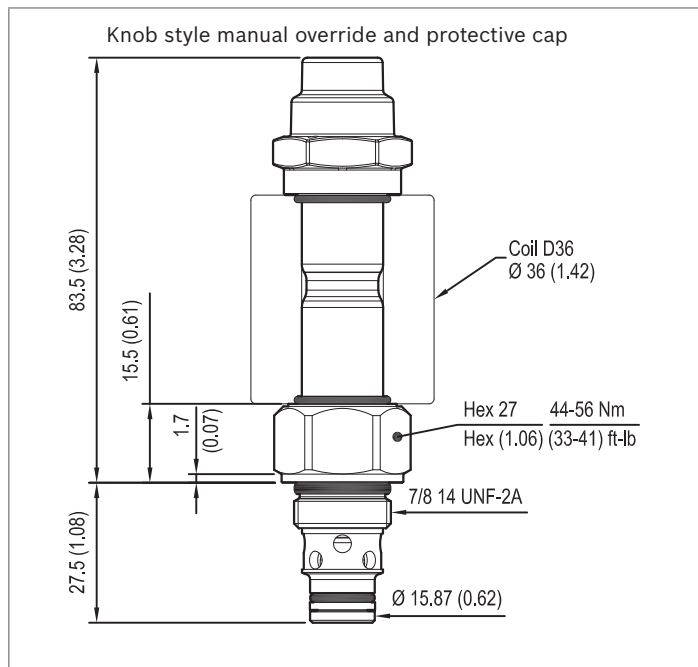
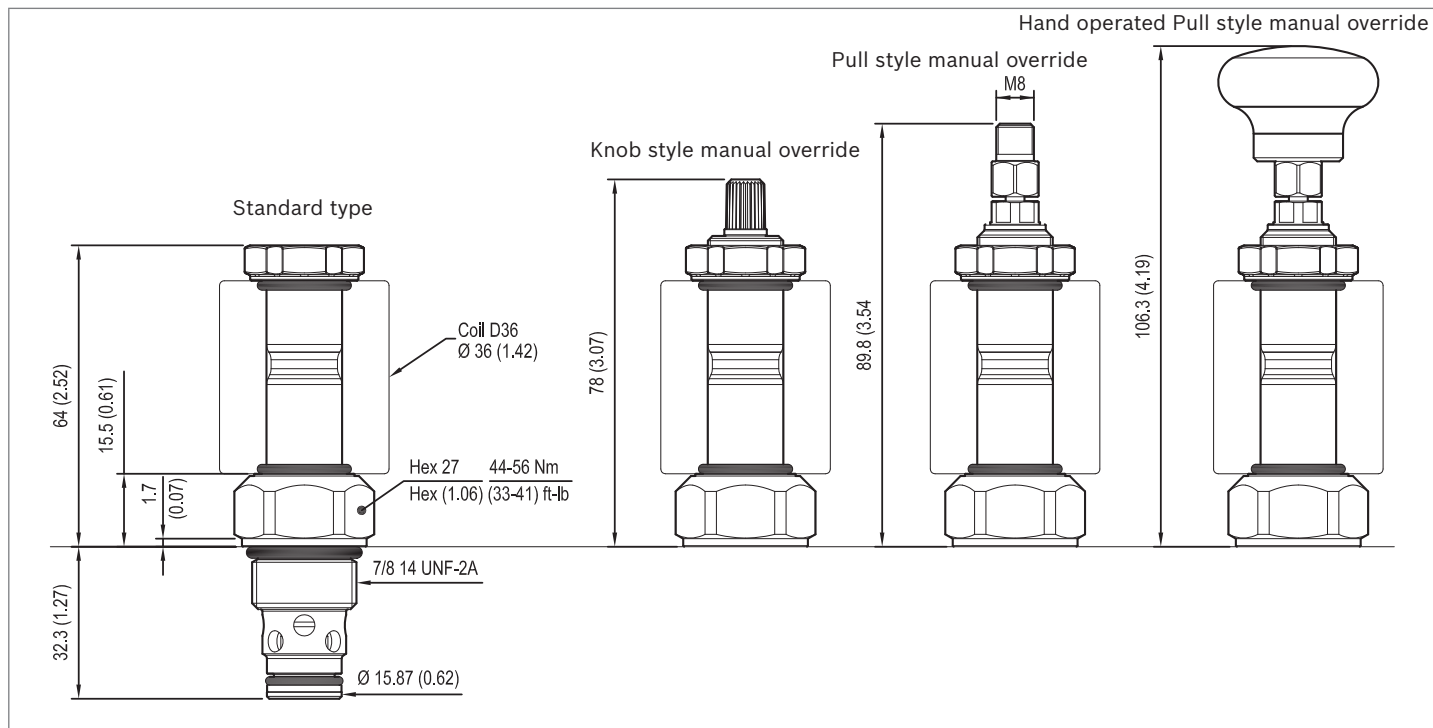


Version 03



Dimensions

Solenoid operated valves, poppet 2-way normally closed



Solenoid operated valves pilot operated poppet type
 2-way normally open
 Common cavity, Size 10

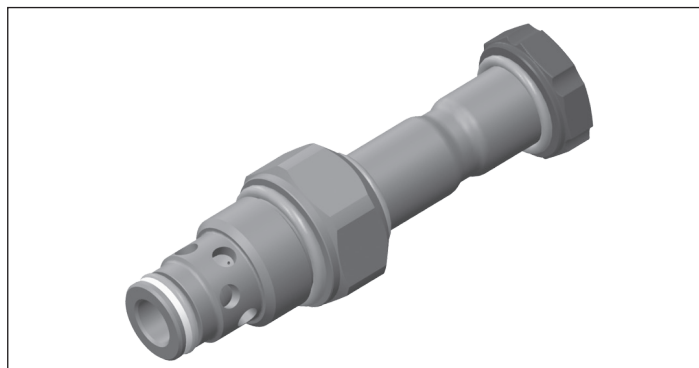
VEI-16-10A-NA

OD.15 - X - 36 - Y - Z - 00

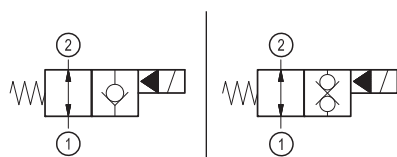
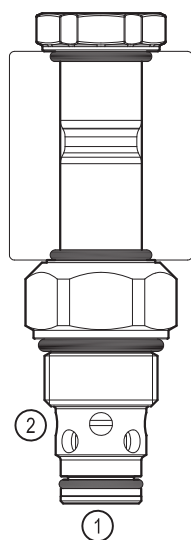
RE 18323-33

Edition: 09.2017

Replaces: 04.2017



PATENT PENDING



Technical data

New VEI-16 family incorporates a new solenoid concept providing excellent performance and enables cartridges to work in severe environment. Cartridges also incorporates advanced design of hydraulic parts providing excellent hydraulic performance.

Technical data

General		
Weight		0.16 kg (0.35 lbs)
Installation orientation		Unrestricted
Ambient temperature range		-30 to 90 °C (-22 to 194 °F)
Hydraulic		
Max. operating pressure		350 bar (5000 psi)
Flow range		2 - 70 l/min (0.53 - 18 gpm)
Fatigue cycle life		2 million cycles at 350 bar
Max. internal leakage:		20 drops/min.
Switching time		Opening ≤ 50 ms
		Closing ≤ 100 ms
Fluid temperature range		-20 to 80 °C (-4 to 176 °F)
Fluids: Mineral-based or synthetics with lubricating properties at viscosities of 20 to 380 mm ² /s (cSt)		
Installation torque		44 - 56 Nm (33 - 41 ft-lbs)
Recommended degree of fluid contamination		Nominal value max. 10 µm (NAS 8) ISO 4406 19/17/14
MTTFd		150 years see RE 18350-51
Cavity		CA-10A-2N see 18325-70
Seal kit for X=06	code	RG10A2010520100
	material no.	R901111363
Seal kit for X=32	code	RG10A2010530100
	material no.	R901111366
Seal kit coil	code	RG01Z0010000100
	material no.	R930058940
Other technical data		See data sheet 18350-50
Electrical		
Type of voltage		DC voltage
Coil type		D36
Supply voltage		See data sheet 18325-90
Voltage tolerance against ambient temperature		See characteristic curve
Power consumption		20 W
Type of protection		See data sheet 18325-90
Note: Coils must be ordered separately		

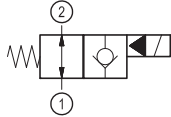
Ordering code

OD.15	X	36	Y	Z	0000	*
--------------	----------	-----------	----------	----------	-------------	----------

Solenoid operated valves
pilot operated poppet type
2-way normally open

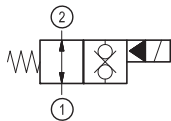
Series 0/A to L
unchanged performances and dimensions

bidirectional type



06

bidirectional type



32

0 = With buna seal
V = With Viton seal
P = With buna seal and protective cap for override version **B** and **C**
T = With Viton seal and protective cap for override version **B** and **C**

A = Standard
B = Push style manual override
C = Push and twist style manual override

Common cavity: CA-10A-2N

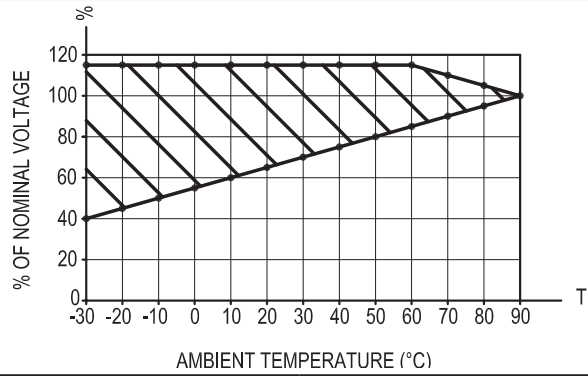
Preferred types

Type	Material number
OD150636A000000	R930061730
OD150636B000000	R930062932
OD150636C000000	R930062933
OD150636BP00000	R930062936
OD150636CP00000	R930062937

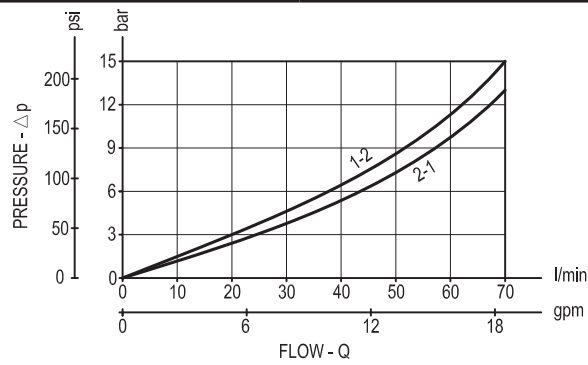
Type	Material number

Characteristic curves

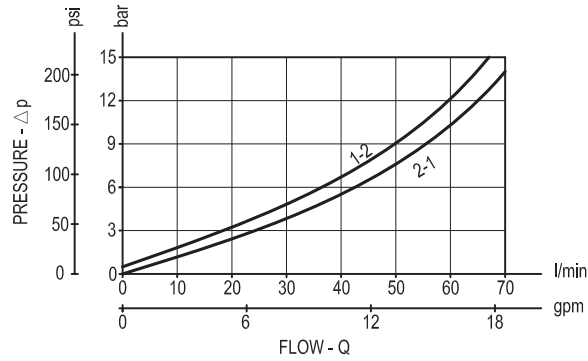
All Versions - Admissible supply voltage Vs. Ambient temperature at 100% duty cycle



Version 06

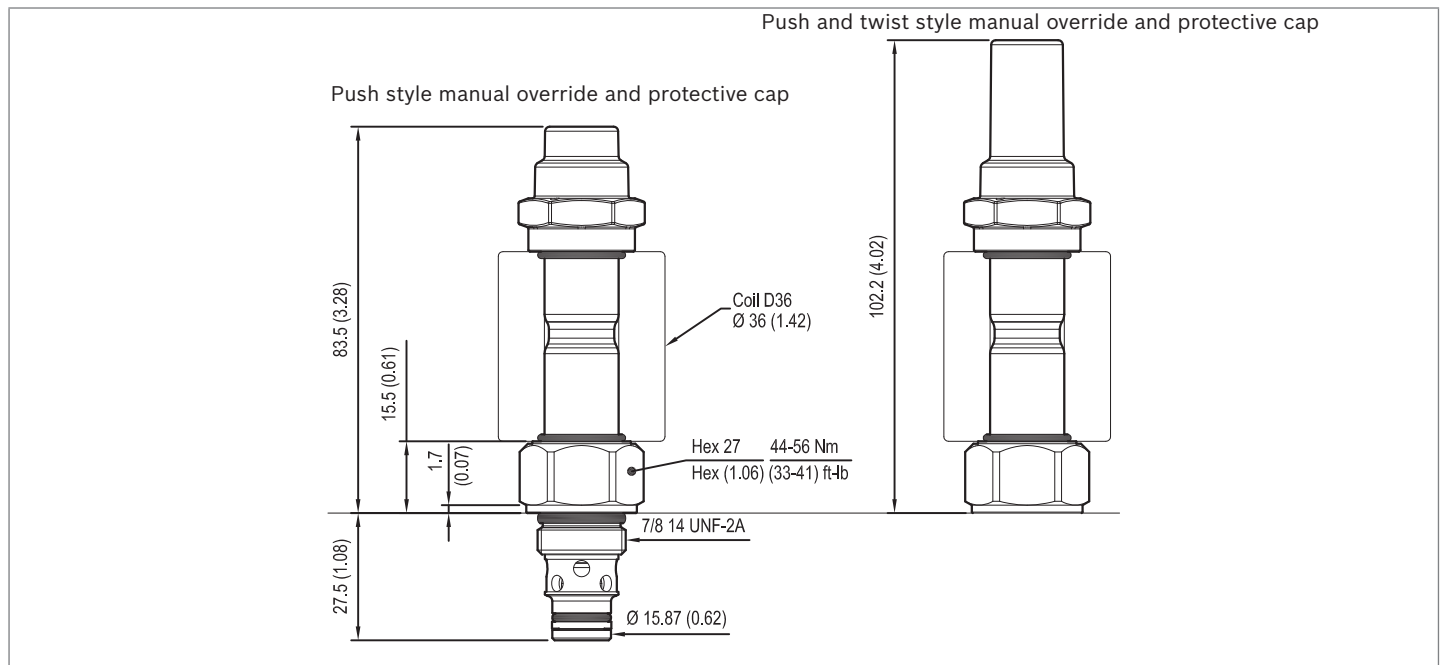
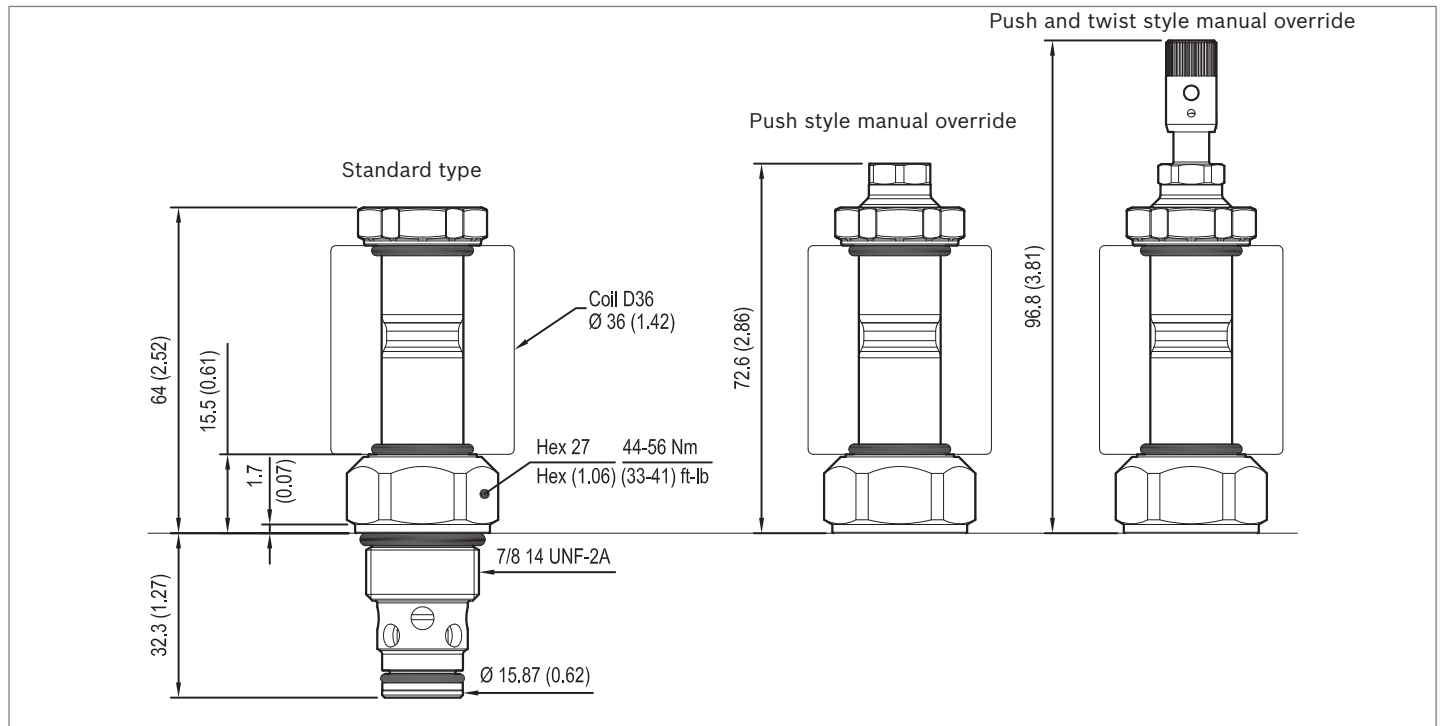


Version 32



Dimensions

Solenoid operated valves, poppet 2-way normally open



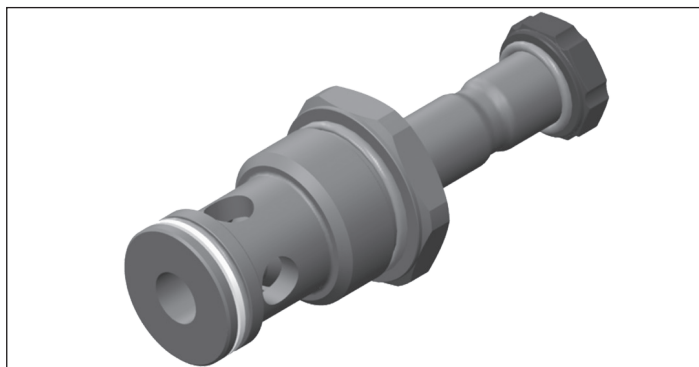
Solenoid operated valves pilot operated poppet type
2-way normally closed
Special cavity, 021-E

RE 18323-37

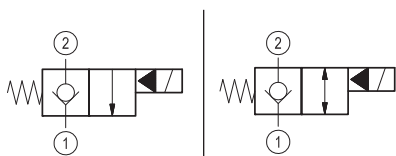
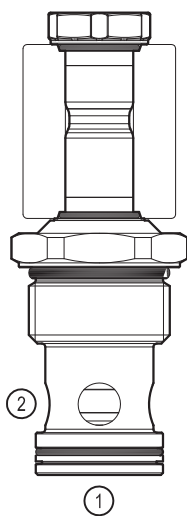
Edition: 12.2017

VEI-16-021-NC

OD.15 - X - 21 - Y - Z



PATENT PENDING



Technical data

New VEI-16 family incorporates a new solenoid concept providing excellent performance and enables cartridges to work in severe environment. Cartridges also incorporates advanced design of hydraulic parts providing excellent hydraulic performance.

Technical data

General	
Weight	0.35 kg (0.77 lbs)
Installation orientation	Unrestricted
Ambient temperature range	-30 to 90 °C (-22 to 194 °F)
Hydraulic	
Max. operating pressure	350 bar (5000 psi)
Flow range	5 - 150 l/min (1 - 40 gpm)
Fatigue cycle life	1 million cycles at 350 bar
Max. internal leakage:	20 drops/min. for X= 01,05
Switching time	Closing ≤ 100 ms Opening ≤ 50 ms
Fluid temperature range	-20 to 80 °C (-4 to 176 °F)
Fluids: Mineral-based or synthetics with lubricating properties at viscosities of 20 to 380 mm ² /s (cSt)	
Installation torque	130 - 150 Nm (96 - 111 ft-lbs)
Recommended degree of fluid contamination	Nominal value max. 10 µm (NAS 8) ISO 4406 19/17/14
MTTFd	150 years see RE 18350-51
Special cavity	021-E see 18325-75
Seal kit for X=01,05	code RG21E201052010 material no. R934003566
Seal kit coil and standard cap	code RG02Z0010000100 material no. R930067869
Seal kit coil and protective cap only for Y=D	code RG03Z0010000100 material no. R930067870
Other technical data	See data sheet 18350-50
Electrical	
Type of voltage	DC voltage
Coil type	D36
Supply voltage	See data sheet 18325-90
Voltage tolerance against ambient temperature	See characteristic curve
Power consumption	20 W
Type of protection	See data sheet 18325-90
Note: Coils must be ordered separately	

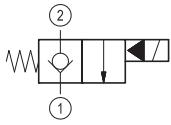
Ordering code

OD.15	X	21	Y	Z	0000	*
--------------	----------	-----------	----------	----------	-------------	----------

Solenoid operated valves
pilot operated poppet type
2-way normally closed

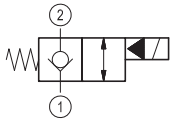
Series 0/A to L
unchanged performances and dimensions

monodirectional type



01

bidirectional type



05

- 0 = With buna seal
- 8 = With buna seal and extra spring only for **05**
- V = With Viton seal
- P = With buna seal and protective cap for override version **D**
- T = With Viton seal and protective cap for override version **D**

- A = Standard
- D = Knob style manual override
- E = Pull style manual override
- F = Hand operated pull style manual override

Special cavity: 021-E

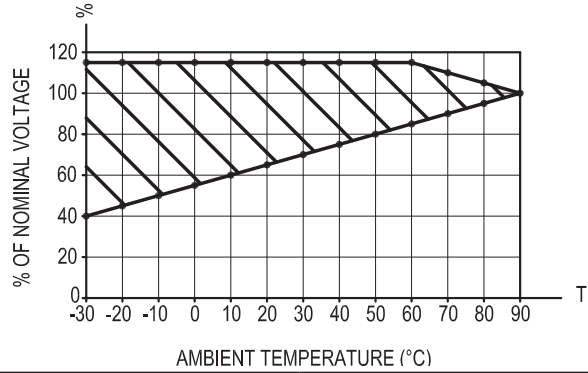
Preferred types

Type	Material number
OD150121A000000	R930064100
OD150521A000000	R930064472
OD150521A800000	R930065846
OD150521D000000	R930066968

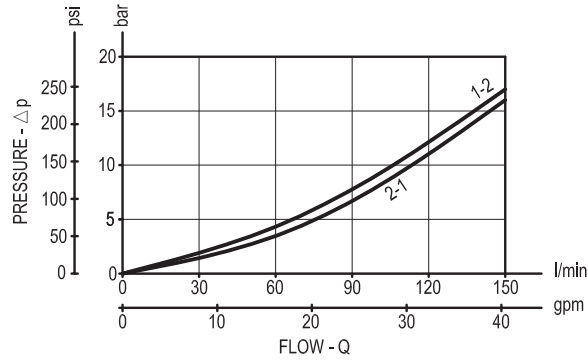
Type	Material number

Characteristic curves

All Versions - Admissible supply voltage Vs. Ambient temperature at 100% duty cycle

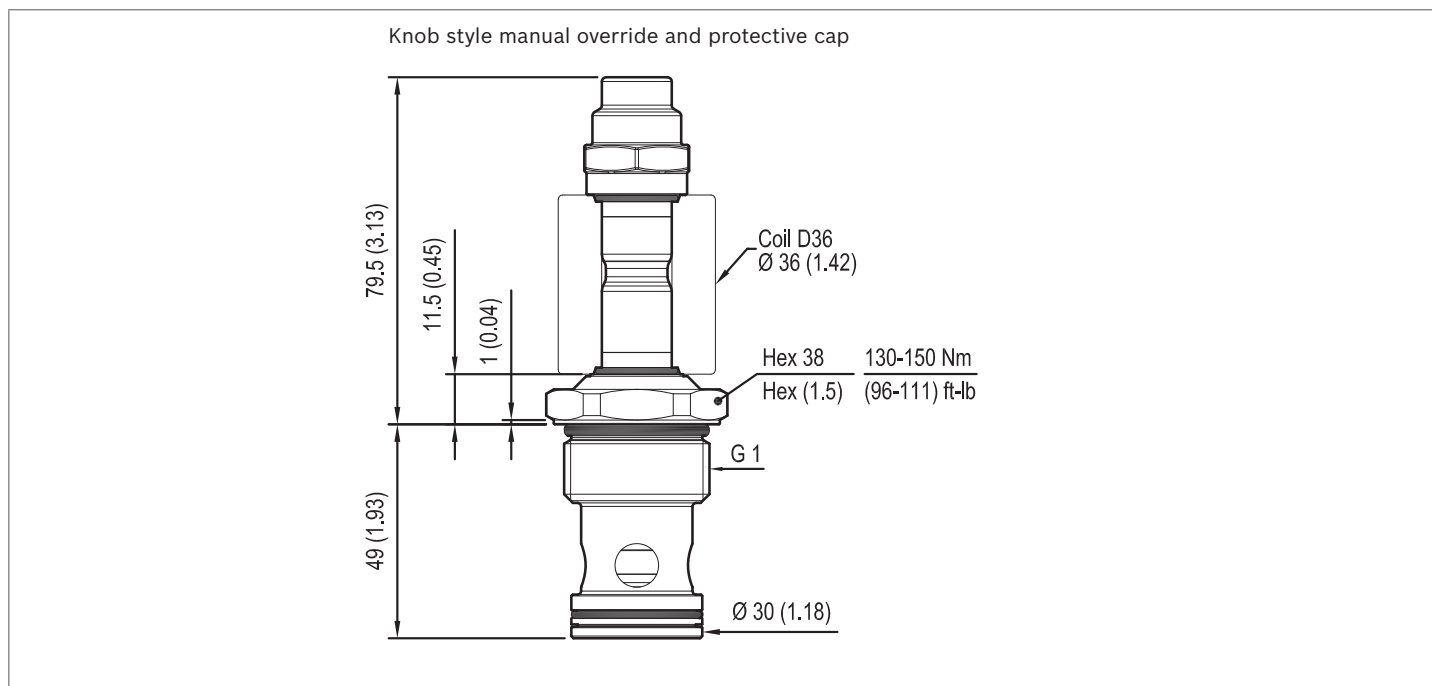
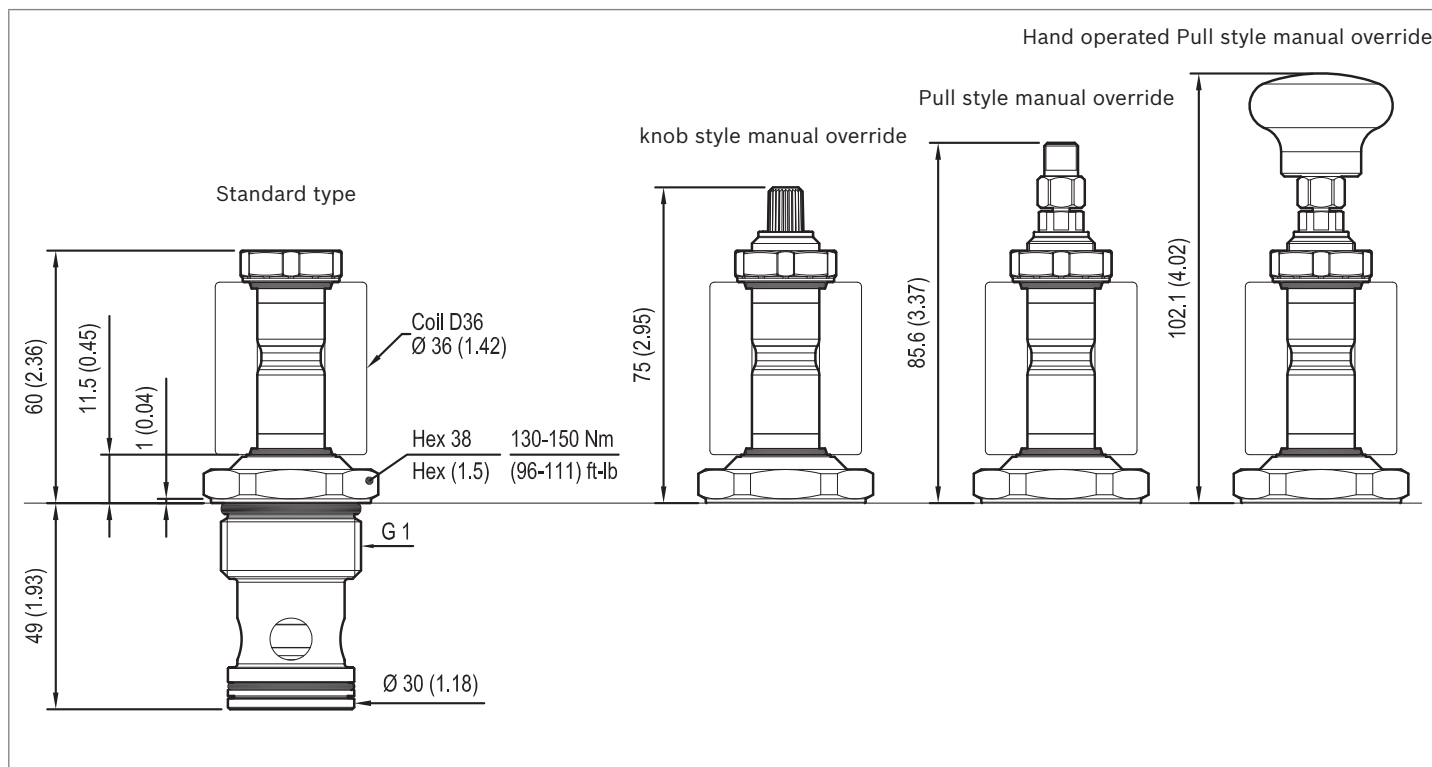


Versions 01, 05



Dimensions

Solenoid operated valves, poppet 2-way normally closed



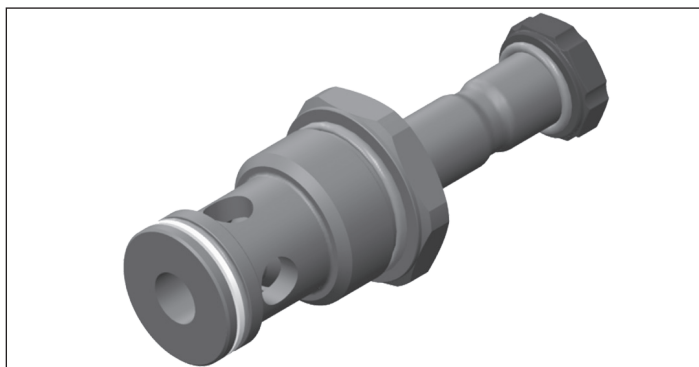
Solenoid operated valves pilot operated poppet type
2-way normally open
Special cavity, 021-E

RE 18323-38

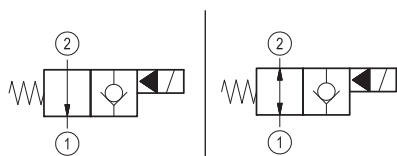
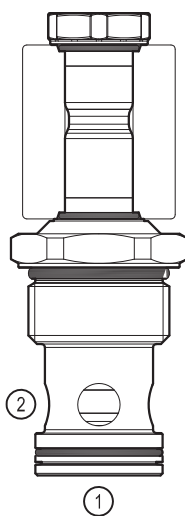
Edition: 12.2017

VEI-16-021-NA

OD.15 - X - 21 - Y - Z - 00



PATENT PENDING



Technical data

New VEI-16 family incorporates a new solenoid concept providing excellent performance and enables cartridges to work in severe environment. Cartridges also incorporates advanced design of hydraulic parts providing excellent hydraulic performance.

Technical data

General	
Weight	0.35 kg (0.77 lbs)
Installation orientation	Unrestricted
Ambient temperature range	-30 to 90 °C (-22 to 194 °F)
Hydraulic	
Max. operating pressure	350 bar (5000 psi)
Flow range	5 - 150 l/min (1 - 40 gpm)
Fatigue cycle life	1 million cycles at 350 bar
Max. internal leakage:	20 drops/min. for X= 02,06
Switching time	Closing ≤ 100 ms Opening ≤ 50 ms
Fluid temperature range	-20 to 80 °C (-4 to 176 °F)
Fluids: Mineral-based or synthetics with lubricating properties at viscosities of 20 to 380 mm ² /s (cSt)	
Installation torque	130 - 150 Nm (96 - 111 ft-lbs)
Recommended degree of fluid contamination	Nominal value max. 10 µm (NAS 8) ISO 4406 19/17/14
MTTFd	150 years see RE 18350-51
Special cavity	021-E see 18325-75
Seal kit for X=02,06	code RG21E201052010 material no. R934003566
Seal kit coil and standard cap	code RG02Z0010000100 material no. R930067869
Seal kit coil and protective cap only for Y=B,C	code RG03Z0010000100 material no. R930067870
Other technical data	See data sheet 18350-50
Electrical	
Type of voltage	DC voltage
Coil type	D36
Supply voltage	See data sheet 18325-90
Voltage tolerance against ambient temperature	See characteristic curve
Power consumption	20 W
Type of protection	See data sheet 18325-90
Note: Coils must be ordered separately	

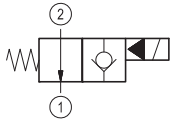
Ordering code

OD.15	X	21	Y	Z	0000	*
--------------	----------	-----------	----------	----------	-------------	----------

Solenoid operated valves
pilot operated poppet type
2-way normally open

Series 0/A to L
unchanged performances and dimensions

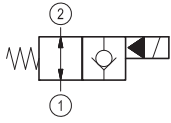
monodirectional type



02

0 = With buna seal
V = With Viton seal
P = With buna seal and protective cap for override version **B** and **C**
T = With Viton seal and protective cap for override version **B** and **C**

bidirectional type



06

A = Standard
B = Push style manual override
C = Push and twist style manual override

Special cavity: 021-E

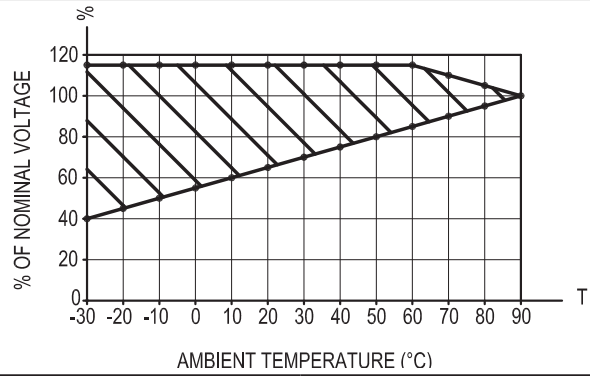
Preferred types

Type	Material number
OD150221A000000	R930063874
OD150621A000000	R930066964
OD150621C000000	R930066969

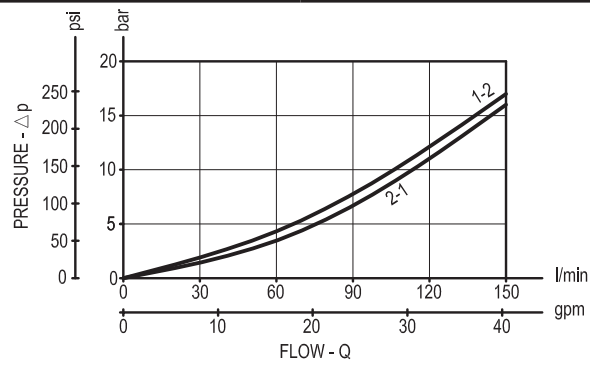
Type	Material number

Characteristic curves

All Versions - Admissible supply voltage Vs. Ambient temperature at 100% duty cycle

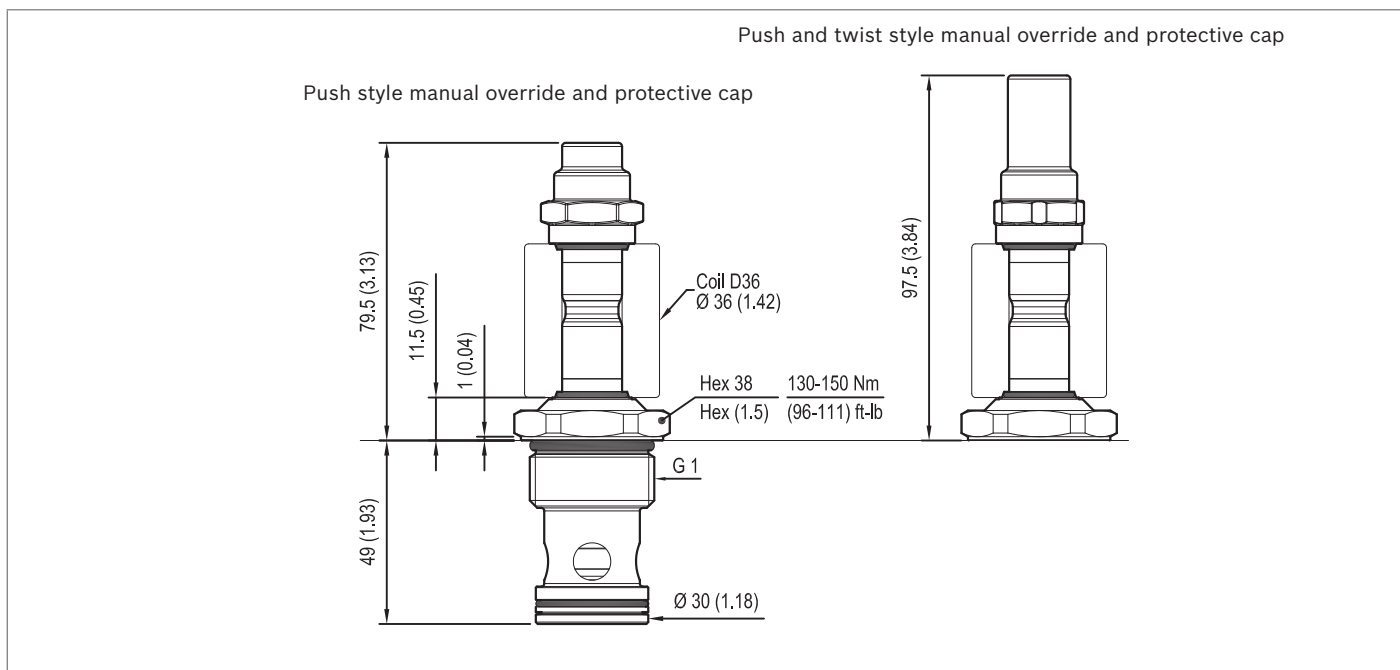
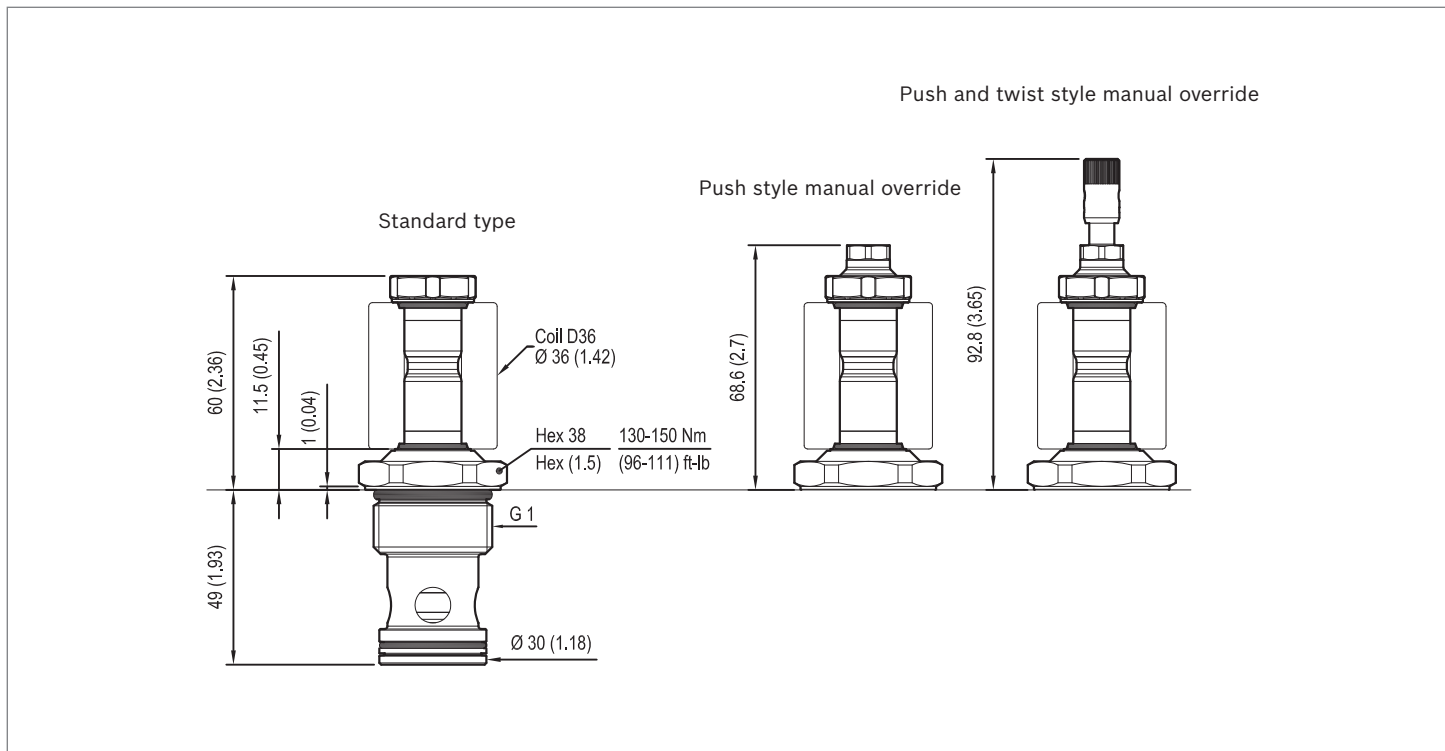


Versions 02, 06



Dimensions

Solenoid operated valves, poppet 2-way normally open



Solenoid operated valves pilot operated poppet type
2-way normally open
Common cavity, Size 12

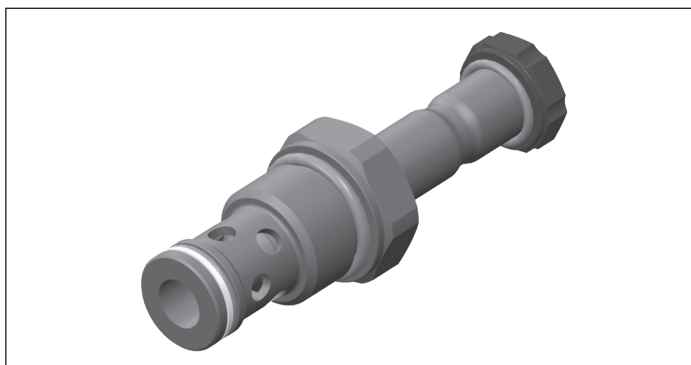
VEI-16-NA

OD.15 - X - 89 - Y - Z - 00

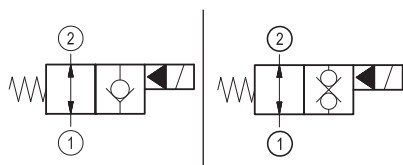
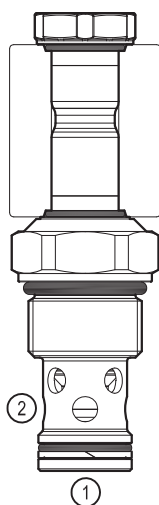
RE 18323-40

Edition: 06.2018

Replaces: 05.2018



PATENT PENDING



Technical data

New VEI-16 family incorporates a new solenoid concept providing excellent performance and enables cartridges to work in severe environment. Cartridges also incorporates advanced design of hydraulic parts providing excellent hydraulic performance.

Technical data

General	
Weight	0.25 kg (0.55 lbs)
Installation orientation	Unrestricted
Ambient temperature range	-30 to 90 °C (-22 to 194 °F)
Hydraulic	
Max. operating pressure	350 bar (5000 psi)
Flow range	5 - 150 l/min (1 - 40 gpm)
Max. internal leakage:	20 drops/min. for X= 02,06
Switching time	Closing ≤ 100 ms Opening ≤ 50 ms
Fluid temperature range	-20 to 80 °C (-4 to 176 °F)
Fluids: Mineral-based or synthetics with lubricating properties at viscosities of 20 to 380 mm ² /s (cSt)	
Installation torque	54 - 66 Nm (40 - 49 ft-lbs)
Recommended degree of fluid contamination	Nominal value max. 10 µm (NAS 8) ISO 4406 19/17/14
MTTFd	150 years see RE 18350-51
Common cavity	CA-12A-2N see 18325-70
Seal kit for X=06	code RG12A2010520100 material no. R901111377
Seal kit for X=32	code RG12A2010530100 material no. R930003374
Seal kit coil and standard cap	code RG02Z0010000100 material no. R930067869
Seal kit coil and protective cap only for Y=B	code RG03Z0010000100 material no. R930067870
Seal kit coil and protective cap only for Y=C	code RG04Z0010000100 material no. R930069171
Other technical data	See data sheet 18350-50
Electrical	
Type of voltage	DC voltage
Coil type	D36
Supply voltage	See data sheet 18325-90
Voltage tolerance against ambient temperature	See characteristic curve
Power consumption	20 W
Type of protection	See data sheet 18325-90
Note: Coils must be ordered separately	

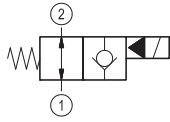
Ordering code

OD.15	X	89	Y	Z	0000	*
--------------	----------	-----------	----------	----------	-------------	----------

Solenoid operated valves
pilot operated poppet type
2-way normally open

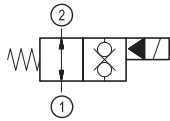
Series 0/A to L
unchanged performances and dimensions

bidirectional type



06

bidirectional type



32

0 = With buna seal
V = With Viton seal
P = With buna seal and protective cap for override version **B** and **C**
T = With Viton seal and protective cap for override version **B** and **C**

A = Standard
B = Push style manual override
C = Push and twist style manual override

Common cavity: CA-12A-2N

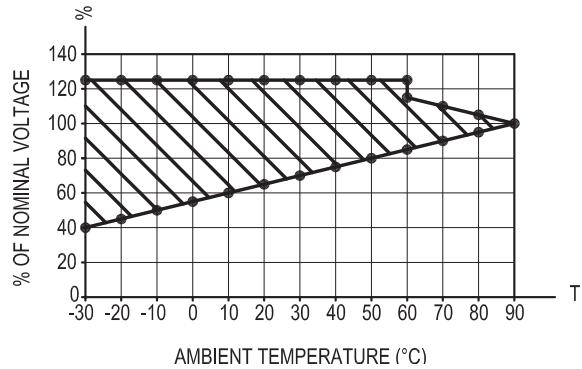
Preferred types

Type	Material number
OD150689A000000	R930063151
OD150689B000000	R930068531
OD150689C000000	R930069635
OD153289A000000	R930066971
OD153289C000000	R930069395

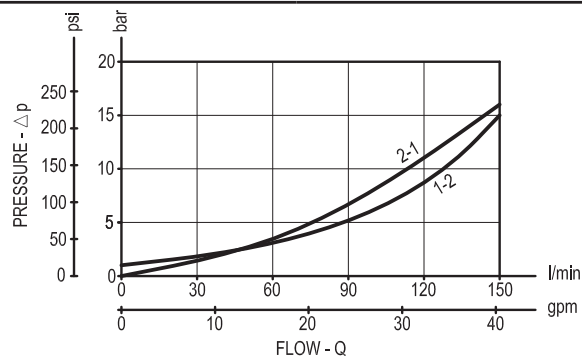
Type	Material number

Characteristic curves

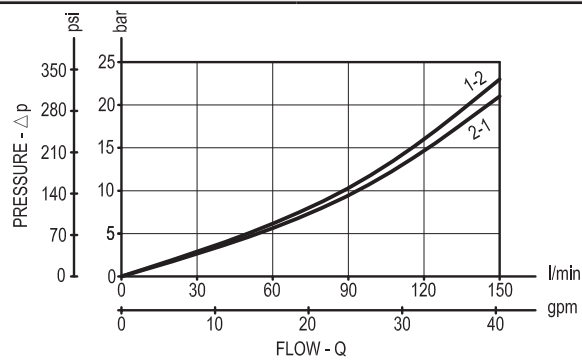
All Versions - Admissible supply voltage Vs. Ambient temperature at 100% duty cycle



Versions 06

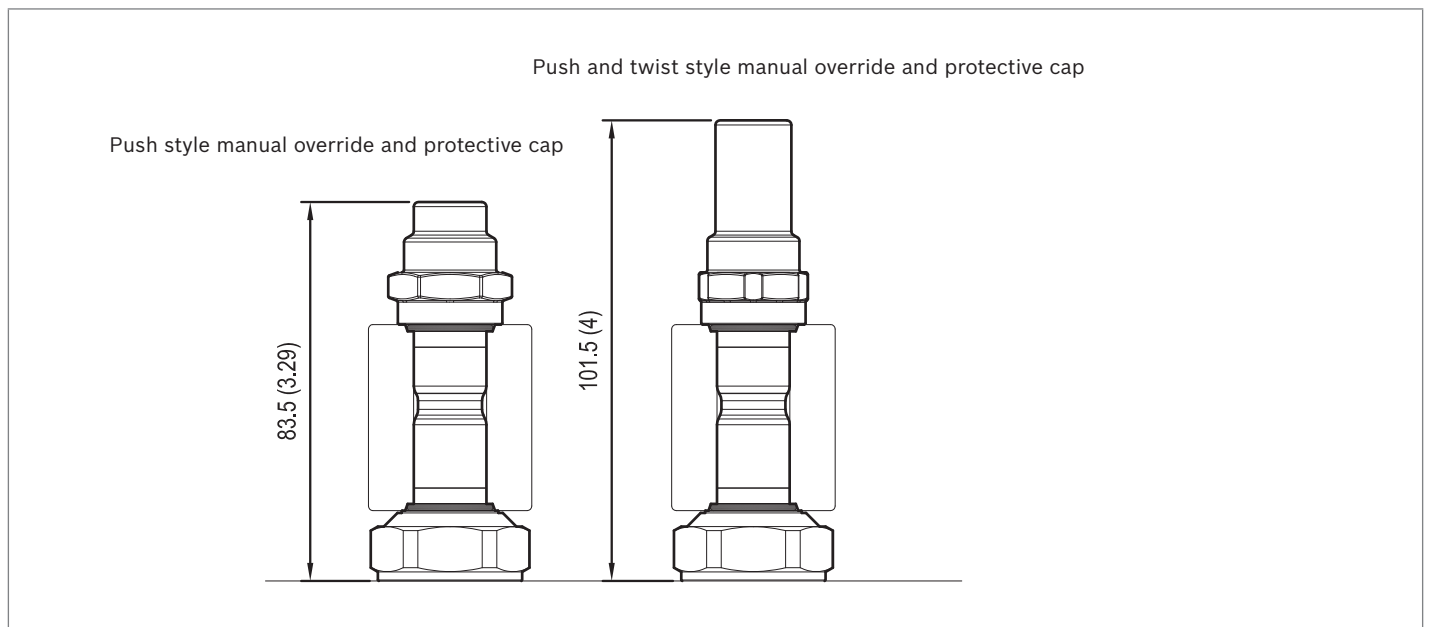
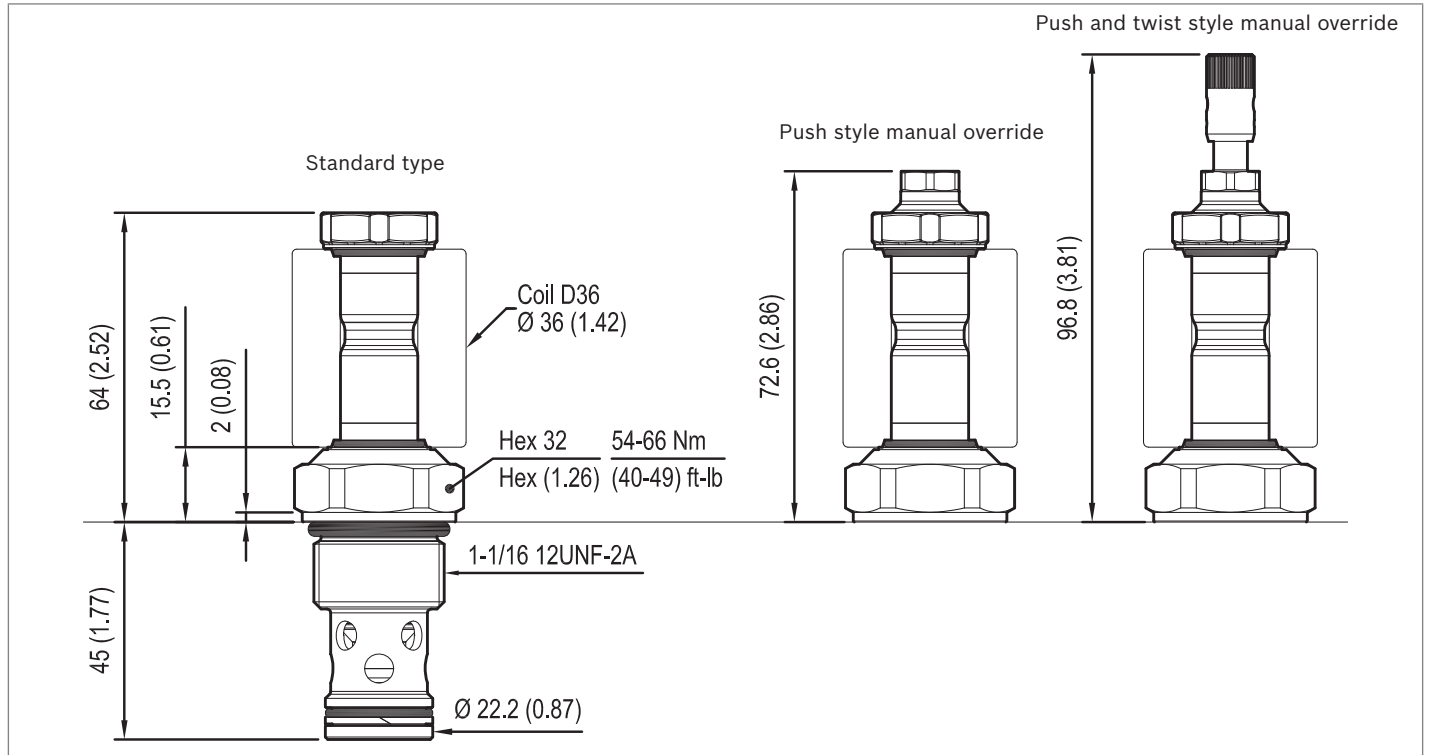


Versions 32



Dimensions

Solenoid operated valves, poppet 2-way normally open

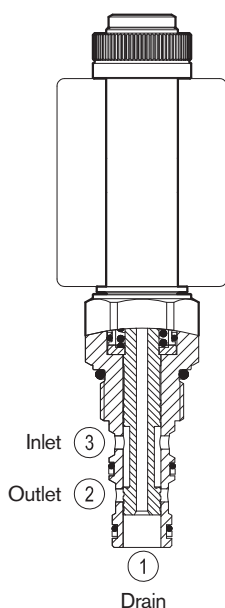


Proportional valves not compensated flow regulator

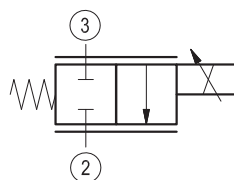
Common cavity, Size 10

VEP-5A-2Q-09

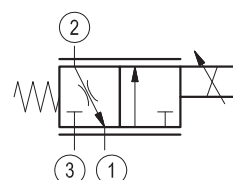
OD.92 - X - 77 - Y - Z



Version 03



Version 05



Version 03: port 1 not used.

General

Weight	kg (lbs)	0.32 (0.71)
Installation orientation		Optional
Ambient temperature range	°C (°F)	-30 to 60 (-22 to 140)

Hydraulic

Max. operating pressure	bar (psi)	210 (3000)
Flow range	l/min.(gpm)	see flow diagram
Max. internal leakage (*)	cm ³ /min. (cu.in./min.)	100 (6)
Fluid temperature range	°C (°F)	-20 to 80 (-4 to 176)

Fluids	Mineral-based or synthetics with lubricating properties at viscosities of 15 to 380 mm ² /s (cSt)	
Installation torque	Nm (ft-lbs)	44-56 (33-41)
Filtration	Nominal value max. 10µm (NAS 8) ISO 4406 19/17/14	
Cavity	CA-10A-3N see RE 18325-70	
Line bodies	See data sheet RE 18325-85	
Seal kit	code	RG10A3010520100
	material no.	R901111369
Seal kit coil	code	RG19A1PNBR7000
	material no.	R934003569
Other technical data	See data sheet RE 18325-90	

(*) Measure at 210 bar (3000 psi). Oil at 46 cSt.

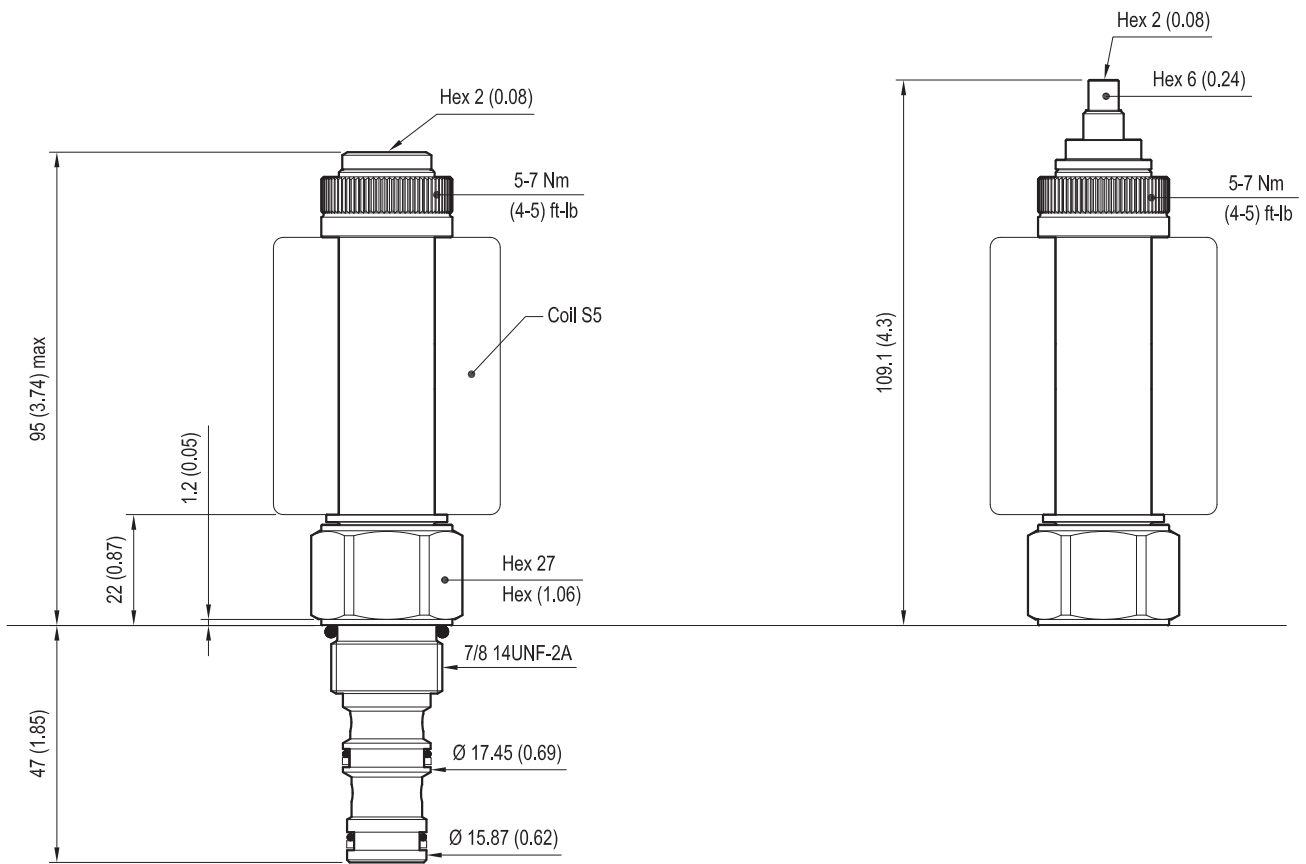
Electrical

Type of voltage	DC voltage
Coil type	S5
Supply voltage	12 DC
Nominal voltage	± 10%
Power consumption	W 23
Duty cycle	% 100
Type of protection	See data sheet RE 18325-90

Note: Coils must be ordered separately.

Dimensions

Proportional valves not compensated flow regulator

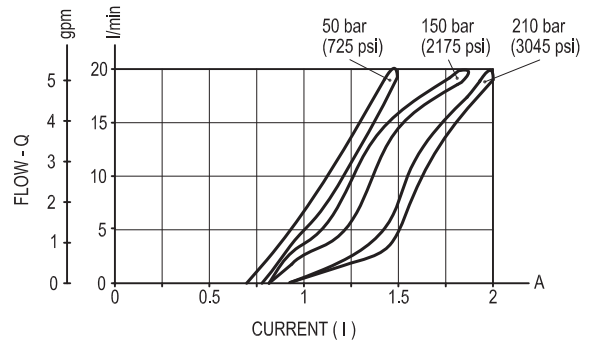
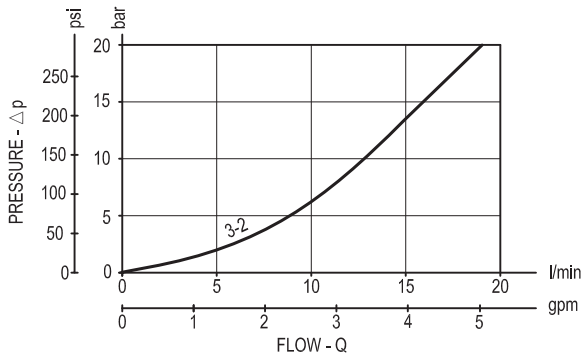


Version 03
PORT NOT USED

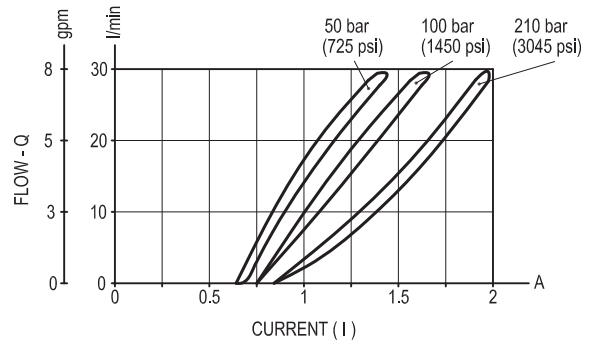
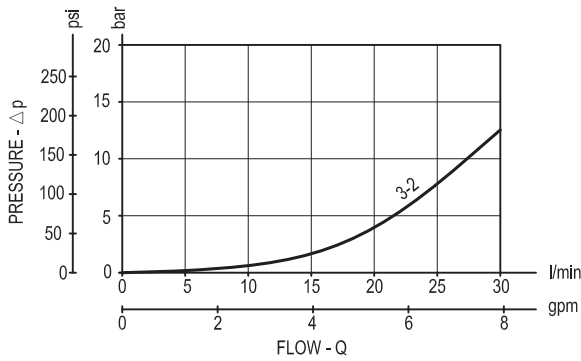
mm (Inches)

Performance graphs

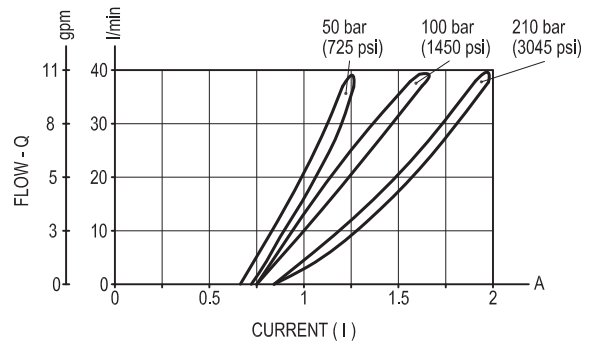
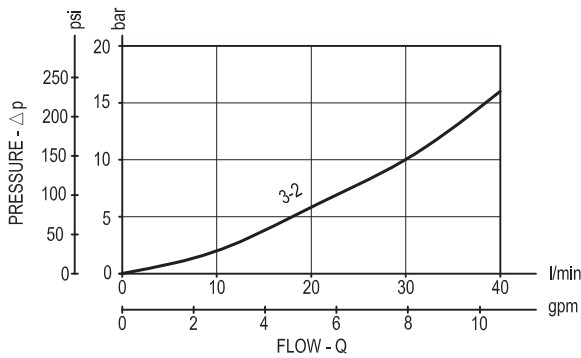
Z= 01



Z= 02



Z= 03



PMW Frequency: 120-150 Hz

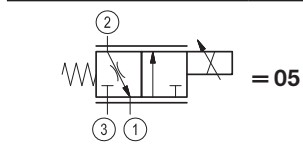
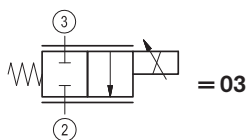
Hysteresis: < 5%

Note: It is recommended to use coil 12 DC.

Ordering code

OD.92 | X | 77 | Y | Z

Proportional valves noT compensated flow regulator

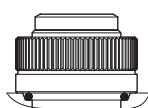


Common cavity: CA-10A-3N

	Operating range		
	Rated flow max l/min (gpm)	I Min. A (±10%)	I Max. A (±10%)
= 01	20 (6)	0.9	2
= 02	30 (8)	0.8	2
= 03	40 (11)	0.8	2

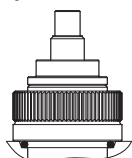
standard type

03 =



knob style manual override

04 =



Proportional valves poppet type
not compensated flow regulator
Common cavity, Size 12

VEPN-12A

OD.95.06.89.72.00

RE 18323-69

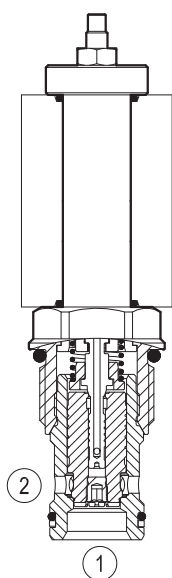
Edition: 01.2016

Replaces: 05.2015

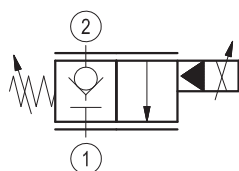


Technical data

General		
Weight		0.29 kg (0.64 lbs)
Installation orientation		Optional
Ambient temperature range		-30 to 90 °C (-22 to 194 °F)
Hydraulic		
Max. operating pressure		210 bar (3000 psi)
Flow range		5 - 60 l/min. (1 - 16 gpm)
Max. internal leakage		10 cm ³ /min. (0.6 cu.in./min.)
Fluid temperature range		-20 to 80 °C (-4 to 176 °F)
Fluids: Mineral-based or synthetics with lubricating properties at viscosities of 15 to 380 mm ² /s (cSt)		
Installation torque		51 - 55 Nm (38 - 41 ft-lbs)
Recommended degree of fluid contamination		Nominal value max. 10 µm (NAS 8) ISO 4406 19/17/14
Cavity		CA-12A-2N see 18325-70
Lines bodies and standard assemblies		Please refer to section "Hydraulic integrated circuit" or consult factory
Seal kit	code	RG12A2010520100
	material no.	R901111377
Seal kit coil	code	RG16A1PMVQ0010
	material no.	R934003962
Other technical data		See data sheet 18350-50
Electrical		
Type of voltage		12 DC voltage
Coil type		R7
Supply voltage		12 DC
Nominal voltage		± 10%
Power consumption		18 W
Duty cycle coil		100
Type of protection		See data sheet 18325-90
Note: Coils must be ordered separately		



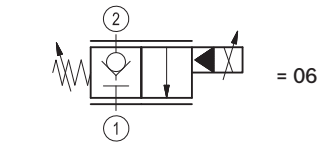
▼ Version 06



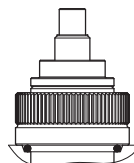
Ordering code

OD.95	06	89	72	00	00
--------------	-----------	-----------	-----------	-----------	-----------

Proportional valves poppet type
not compensated flow regulator



72 = Manual setting off set



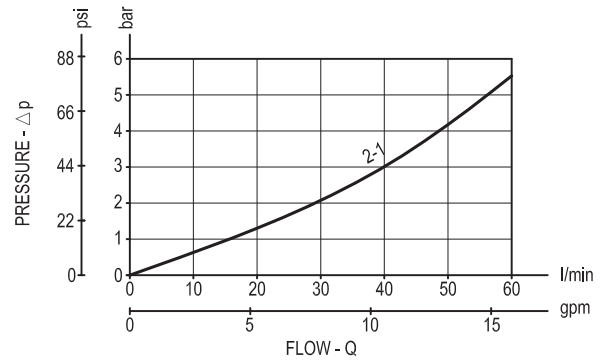
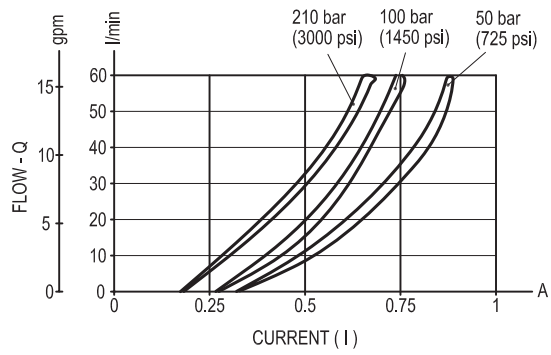
Common cavity: CA-12A-2N

Preferred types

Type	Material number
OD950689720000	R934001162

Type	Material number

Characteristic curves



	I	P bar (psi)	Coils
I min:	0.2	210 (3000)	12 DC
I max:	0.65	210 (3000)	12 DC
PMW Frequency: 120-150 Hz			
Hysteresis: < 5%			

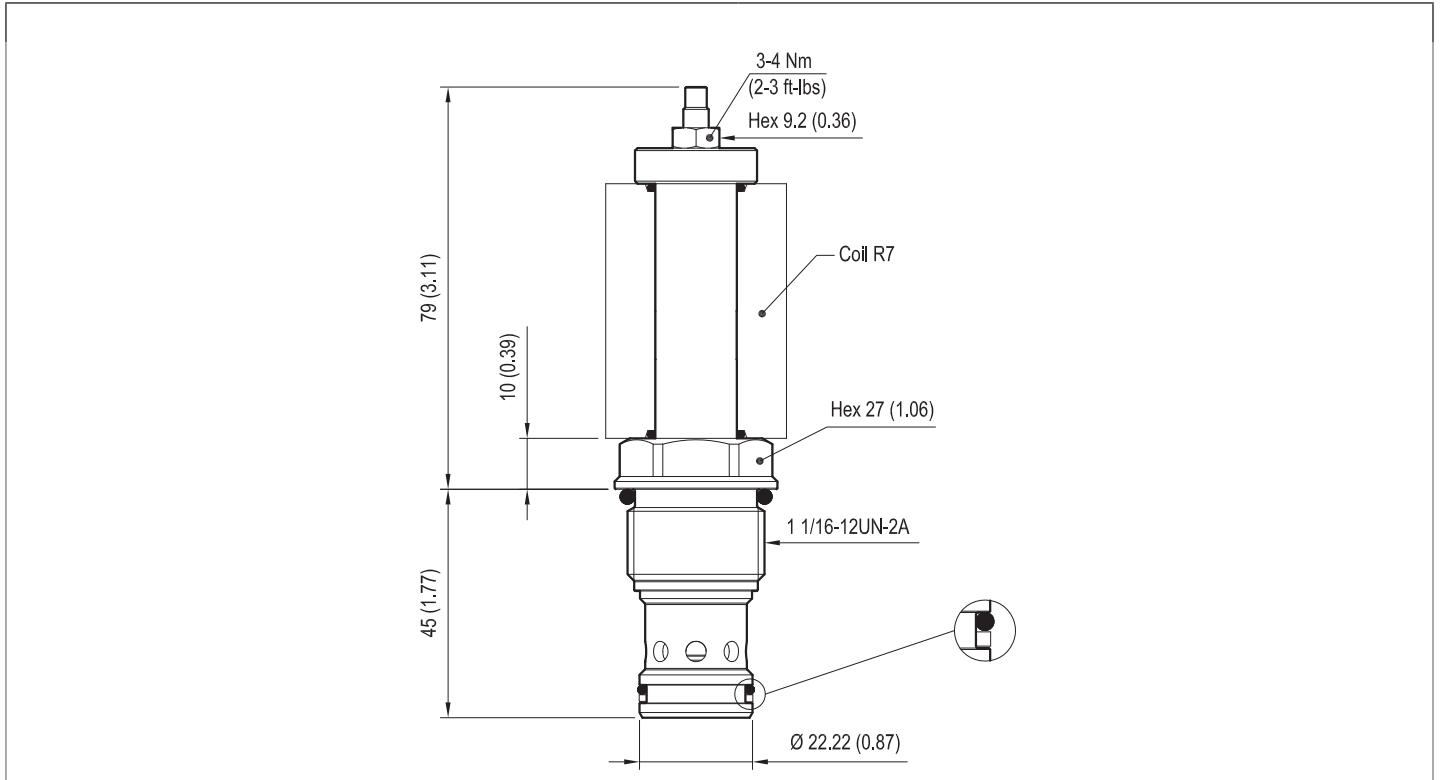
Note: It is recommended to use coil 12 DC.

4 **VEPN-12A** | Proportional valves poppet type not compensated flow regulator

Dimensions [mm (inches)]

Dimensions

▼ **Proportional valves poppet type not compensated flow regulator**

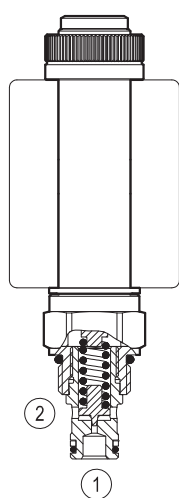


Proportional valves direct acting relief

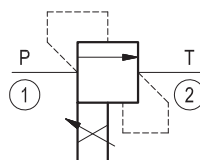
Common cavity, Size 08

VEP-5B-2S-D

OD.94.01.18 - Y - Z



Version 01



General

Weight	kg (lbs)	0.23 (0.51)
Installation orientation		Optional
Ambient temperature range	°C (°F)	-30 to 60 (-22 to 140)

Hydraulic

Max. operating pressure	bar (psi)	350 (5000)
Flow range	l/min.(gpm)	See flow diagram
Max. internal leakage (*)	cm ³ /min. (cu.in./min.)	5 (0.3)
Fluid temperature range	°C (°F)	-20 to 80 (-4 to 176)
Fluids		Mineral-based or synthetics with lubricating properties at viscosities of 15 to 380 mm ² /s (cSt)
Installation torque	Nm (ft-lbs)	39-51 (29-38)
Filtration		Nominal value max. 10µm (NAS 8) ISO 4406 19/17/14
Cavity		CA-08A-2N see RE 18325-70
Line bodies		See data sheet RE 18325-85
Seal kit	code material no.	RG08A2010520100 R901101437
Seal kit coil	code material no.	RG19A1PNBR7000 R934003569
Other technical data		See data sheet RE 18325-90

(*) at 20% of pressure setting. Oil at 46 cSt

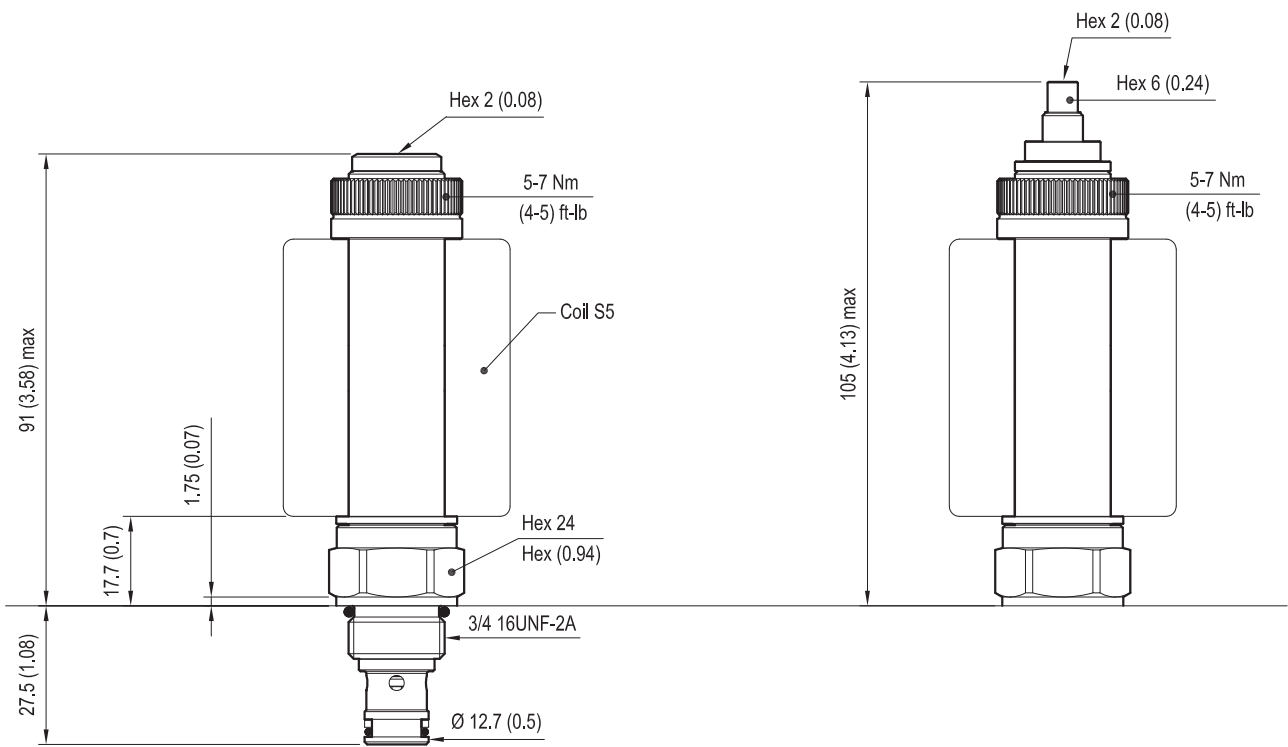
Electrical

Type of voltage	DC voltage
Coil type	S5
Supply voltage	12 DC
Nominal voltage	± 10%
Power consumption	W 23
Duty cycle	% 100
Type of protection	See data sheet RE 18325-90

Note: Coils must be ordered separately.

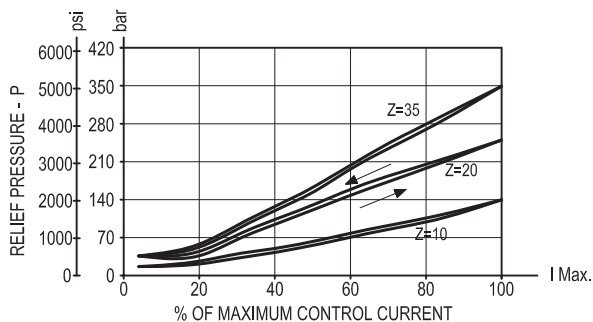
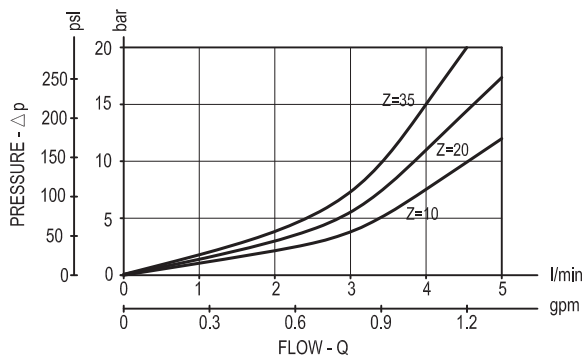
Dimensions

Proportional valves direct acting relief



mm (Inches)

Performance graphs



		I	P bar (psi)	Coils
Z=10	I min:	0.2 A	15 (218)	12 DC
	I max:	1.5 A	140 (2030)	12 DC
Z=20	I min:	0.15 A	30 (435)	12 DC
	I max:	1.7 A	250 (3625)	12 DC
Z=30	I min:	0.2 A	30 (435)	12 DC
	I max:	1.7 A	350 (5075)	12 DC
PMW Frequency: 120-150 Hz				
Hysteresis: < 5%				

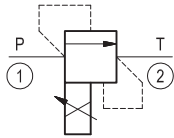
Note (1): It is recommended to use coil 12 DC.

Note (2): It is recommended to bleed air carefully before operation.

Ordering code

OD.94 01 18 Y Z

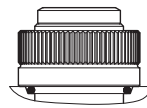
Proportional valves direct acting relief



	Operating range				
	Pressure range bar (psi)	Voltage V	I Min. A (±10%)	I Max. A (±10%)	Internal orifice mm (Inch)
= 10	15-140 (220-2000)	12	0.25	1.8	2.5 (0.9)
= 20	30-250 (440-3600)	12	0.25	1.8	1.8 (0.7)
= 35	30-350 (440-5000)	12	0.25	1.8	1.5 (0.6)

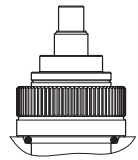
standard type

03 =



knob style manual override

04 =



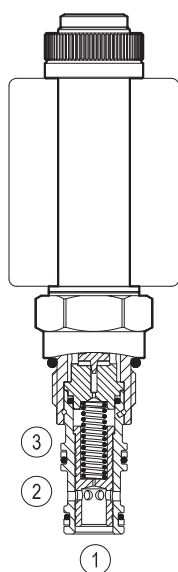
Common cavity: CA-08A-2N

Proportional valves pilot operated pressure reducing

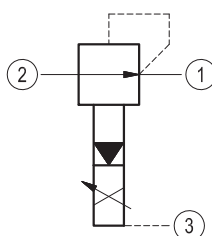
Common cavity, Size 10

VEP-5A-2R-06-P

OD.91.06.77 - Y - 00



Version 06



General

Weight	kg (lbs)	0.3 (0.66)
Installation orientation		Optional
Ambient temperature range	°C (°F)	-30 to 60 (-22 to 140)

Hydraulic

Max. operating pressure	bar (psi)	250 (3600)
Flow range	l/min.(gpm)	2-60 (0.5-16)
Max. internal leakage	cm ³ /min. (cu.in./min.)	50 (3)
Fluid temperature range	°C (°F)	-20 to 80 (-4 to 176)
Fluids		Mineral-based or synthetics with lubricating properties at viscosities of 15 to 380 mm ² /s (cSt)
Installation torque	Nm (ft-lbs)	44-56 (33-41)
Filtration		Nominal value max. 10µm (NAS 8) ISO 4406 19/17/14
Cavity		CA-10A-3N see RE 18325-70
Seal kit	code material no.	RG10A3010520100 R901111369
Seal kit coil	code material no.	RG19A1PNBR7010 R934003964
Other technical data		See data sheet RE 18325-90

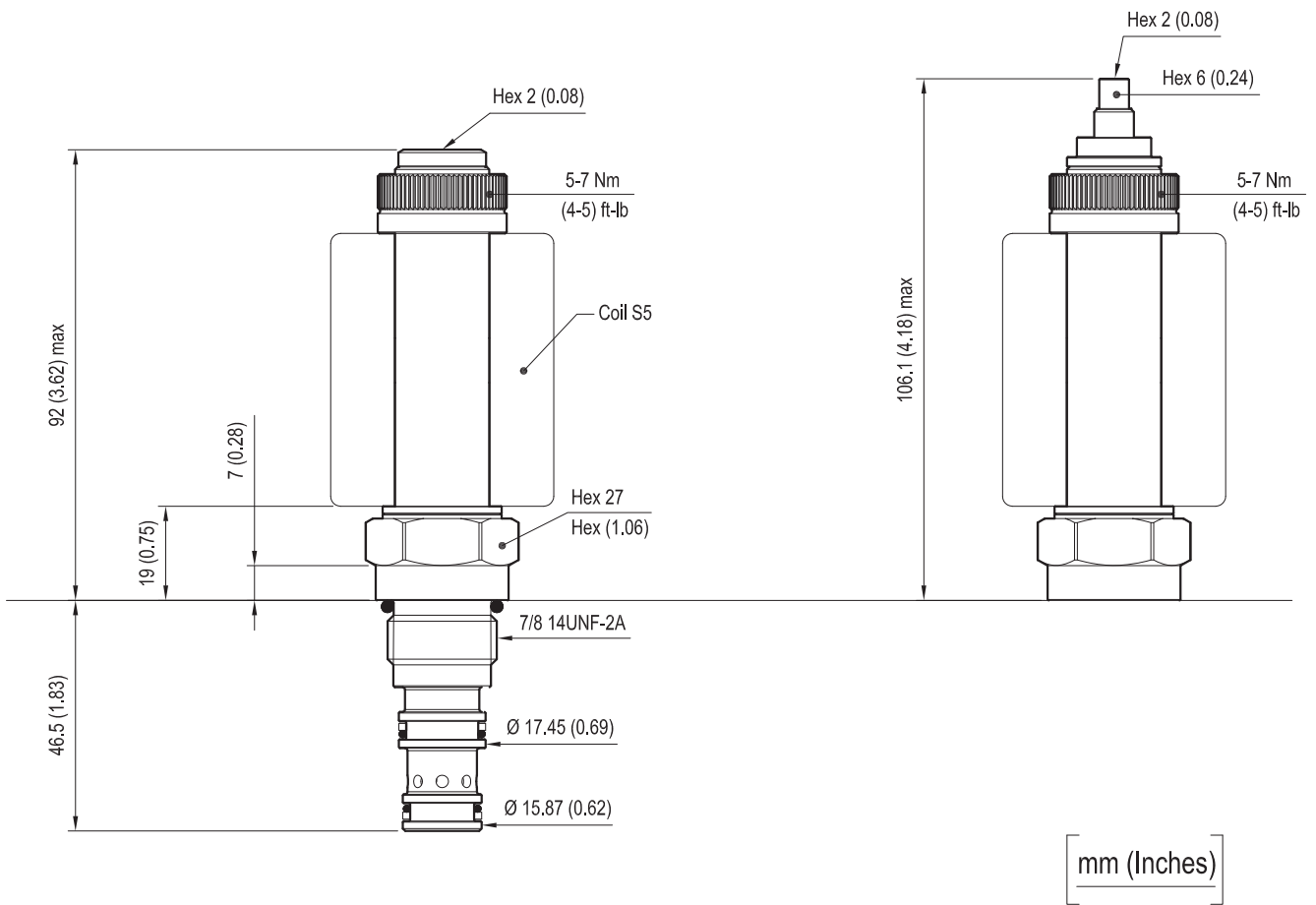
Electrical

Type of voltage		12 DC voltage
Coil type		S5
Supply voltage		See data sheet RE 18325-90
Nominal voltage		± 10%
Power consumption	W	23
Duty cycle	%	100
Type of protection		See data sheet RE 18325-90

Note: Coils must be ordered separately.

Dimensions

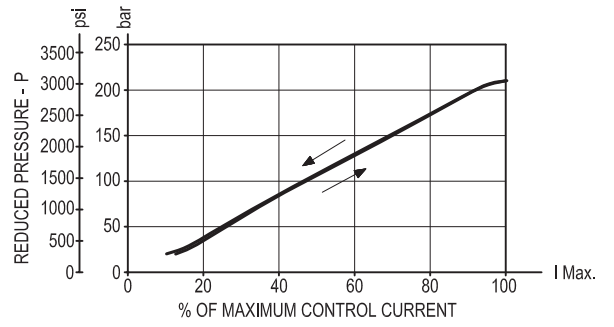
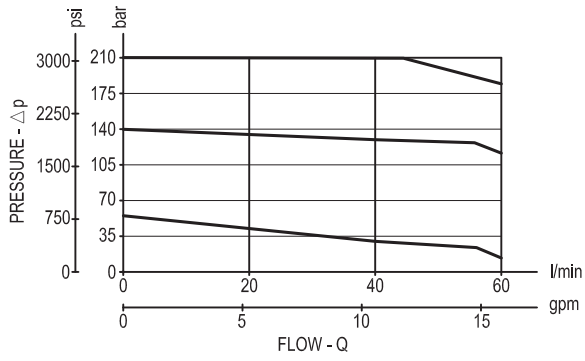
Proportional valves pilot operated pressure reducing



mm (Inches)

Allowed back pressure at port 3 (Y): 5 bar (73 psi)
max

Performance graphs



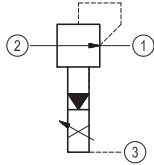
	I	P bar (psi)	Coils
I min:	0.1 A	15 (218)	12 DC
I max:	1.3 A	210 (3045)	12 DC
PMW Frequency: 120-150 Hz			
Hysteresis: < 5%			

Note (1): It is recommended to use coil 12 DC.
 Note (2): It is recommended to bleed air carefully before operation.

Ordering code

OD.91	06	77	Y	00
-------	----	----	---	----

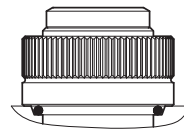
Proportional valves pilot operated pressure reducing



Common cavity: CA-10A-3N

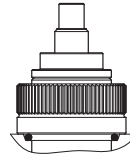
standard type

03 =



knob style manual override

04 =



COIL D36 - CLASS H - 20 W

OD.02.36 - X - Y - Z

TECHNICAL DATA

Weight: 0.18 kg (0.40 lbs)

Power: 20 W

Heat insulation Class H: 180°C (356°F)

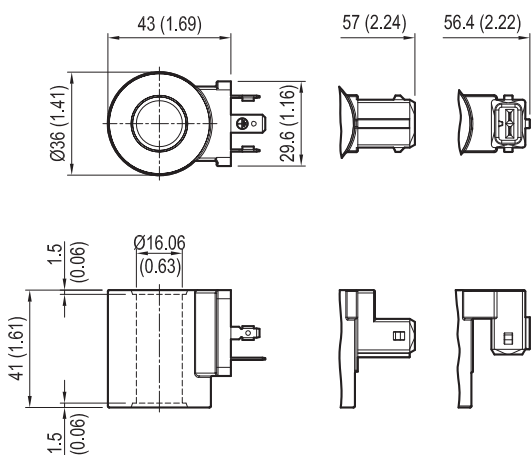
Ambient temperature range: -30/+90°C (-22/+194°F)

Further performance limits in terms of temperature and voltage fluctuations: please refer to data sheet of the solenoid valve where D36 coil is mounted.

DIN 43650-ISO 4400
IP54 / IP67

AMP JUNIOR
HORIZONTAL
IP67

AMP JUNIOR
VERTICAL
IP67



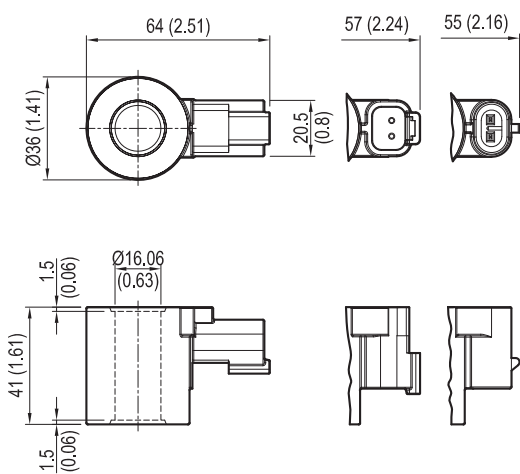
[mm / Inches]

X	Y	Connections	Circuit	Voltage
01	30	DIN 43650 - ISO 4400	Standard	DC
07	30	AMP JUNIOR H	Standard	DC
07	3P	AMP JUNIOR V	Standard	DC
14	30	DIN 43650 - ISO 4400	Bidirectional Diode	DC
15	30	AMP JUNIOR H	Bidirectional Diode	DC
15	3P	AMP JUNIOR V	Bidirectional Diode	DC

DEUTSCH DT04-2P-L
IP69K

DEUTSCH DT04-2P-V
IP69K

AMP SUPERSEAL-V
IP69K

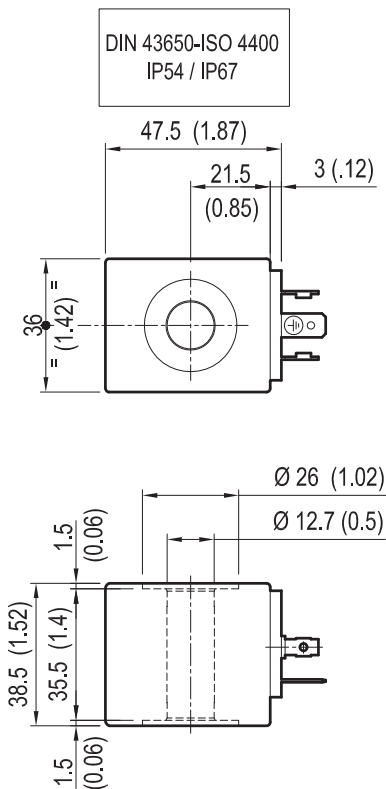


[mm / Inches]

X	Y	Connections	Circuit	Voltage
20	30	DEUTSCH DT04-2P-L	Standard	DC
20	3P	DEUTSCH DT04-2P-V	Standard	DC
30	3P	AMP SUPERSEAL-V	Standard	DC
22	30	DEUTSCH DT04-2P-L	Bidirectional Diode	DC
22	3P	DEUTSCH DT04-2P-V	Bidirectional Diode	DC
32	3P	AMP SUPERSEAL-V	Bidirectional Diode	DC

COIL S8-356 - G2 - CLASS H - 19.5 W

OD.02.28 - X - Y - Z



DIN 43650-ISO 4400
IP54 / IP67

TECHNICAL DATA

Weight DC: 0.20 kg (0.44 lbs)

Weight RAC: 0.19 kg (0.42 lbs)

Heat insulation Class H: 180°C (356°F)

Ambient temperature range: -30/+60°C (-22/+140°F)

Inlet voltage fluctuations must not exceed ±10%

X	Y	Connections	Circuit	Voltage
01	30	DIN 43650 - ISO 4400	Standard	DC - RAC

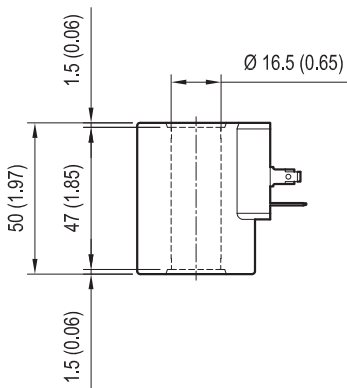
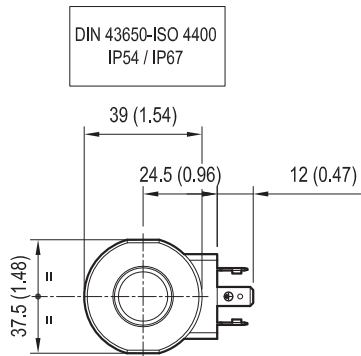
Z	Voltage V	Resistance Ohm (±7%)	Power W	Current A		ΔT °C (°F) 1 hour energized at Ta=20-25°C (68-77°F) Nominal voltage
	Nominal	Ta = 20-25°C (68-77°F)	Cold coil	Cold coil	Hot coil	
GV	230 DC	2697.73	19.5	* 0.075	* 0.058	95-100 (205-215)
GA	230 RAC	2179.39	19.5	* 0.087	* 0.064	

* Note: current valves with Ta= 60 °C (140 °F)

[mm / Inches]

COIL R7 - CLASS H - 18 W

OD.02.21 - X - Y - Z - 00



[mm / Inches]

TECHNICAL DATA

Weight: 0.31 kg (0.71 lbs)

Heat insulation Class H: 180°C (356°F)

Ambient temperature range: -30/+80°C (-22/+284°F)

Inlet voltage fluctuations must not exceed ±15% of nominal voltage to obtain correct operation and long life coils.

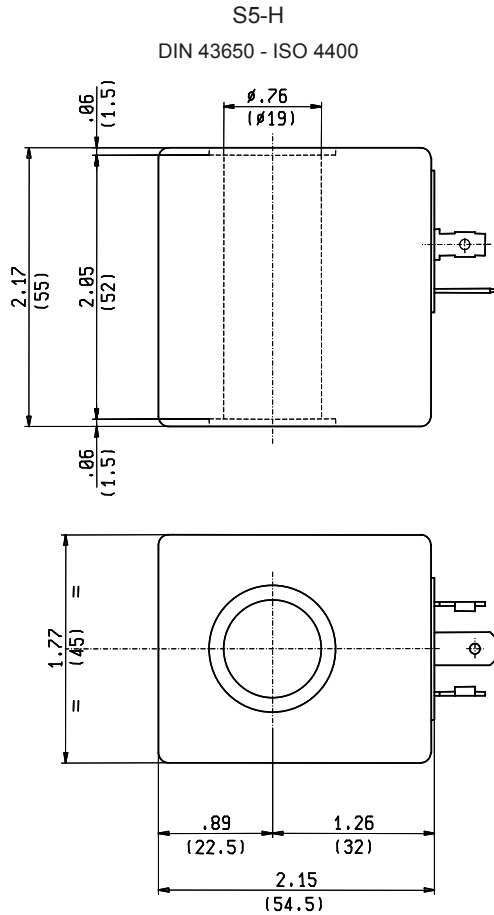
X	Y	Connections	Circuit	Voltage
01	30	DIN 43650 - ISO 4400	Standard	DC

Z	Voltage V	Resistance Ohm (±7%)	Power W	Current A		ΔT °C (°F)
	Nominal	Ta = 20-25°C (68-77°F)	Cold coil	Cold coil	Hot coil	1 hour energized at Ta=20-25°C (68-77°F) Nominal voltage
OB	12 DC	7.9	18	1.5	1.1	90-105 (194-221)

**SOLENOID OPERATED VALVES
CONTINUOUS DUTY COILS - ED 100%**

S5 SERIES

OD.02.09.01.30 - Z - 01



Inches
(mm)

TECHNICAL DATA

General coil information	page 7.01.010	
Weight	0.728 lbs (0.330 kg)	
Encapsulating material	IXEF	
HEAT INSULATION CLASS H	356 °F	(180 °C)
Ambient temperature range	-86 +140 °F	(-30 +60 °C)
Available on request : Different Voltages - Working Duty ED 50%		
Inlet voltage fluctuations must not exceed $\pm 10\%$ of nominal voltage to obtain correct operation and long life of coils.		



Z	Voltage V	Resistance Ω ($\pm 7\%$)	Power W	Current A		ΔT °F (°C)
	Nominal	Ta = 68-77 °F (20-25 °C)	Cold Coil	Cold Coil	Hot Coil	1 hour energized at Ta = 68-77 °F (20-25 °C) Nominal Voltage
OB	12 DC	6.2	23	1.92	1.41	198-205 (92-96)
OC	24 DC	24.9	23	0.96	0.71	

The present catalogue cancels and supersedes all the previous issues.

Hydrover reserves the right to stop production or to change specifications and dimensions of any valve without prior notice and without incurring in any obligation.

All the information given by Hydrover, its staff and commercial partners are addressed to users having technical knowledge. The users have to check the suitability of chosen items with their application needs and security.

All rights are reserved. It is specifically forbidden to reproduce partially or totally the present catalogue.

	<p>Operational and legal headquarters HYDROVER S.r.L. Via Torrette, 45 - 12010 BERNEZZO (CN) Italy Tel. +39 0171/857366 - Fax +39 0171/857659 European VAT IT02449930045 Cuneo CCIAA Rea n. 176832 Company capital € 10.000,00 email: info@hydrover.it - Web: www.hydrover.it</p>
<p>Bosch Rexroth Oil Control official dealer</p>  <p>A Bosch Company</p>	