rexroth
A Bosch Company

Pressure relief pilot operated poppet type and anti-cavitation valve Common cavity, Size 16

RE 18318-41
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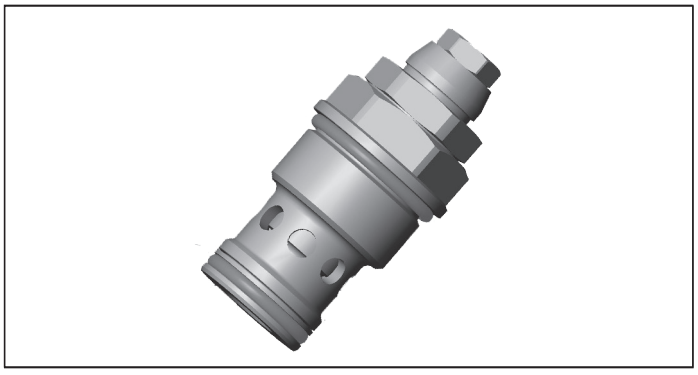
VMR2-22-16A VMR2-16A



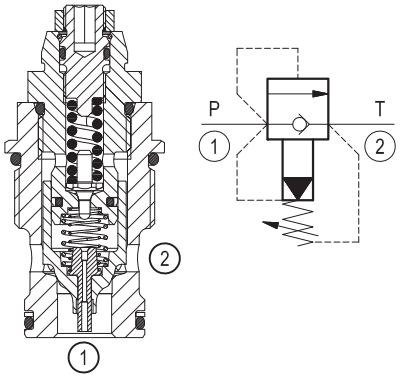
Description

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.

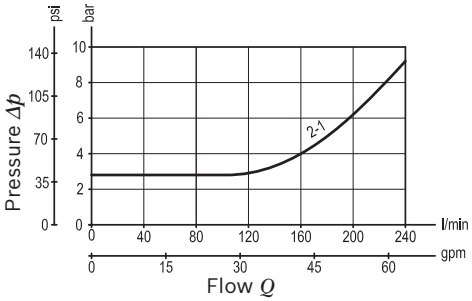
The anti-cavitation function makes up for lacking oil volumes caused, for example, by leakage when pressure valves respond or in the case of leading loads. If the pressure at main port 1 is lower than the one at main port 2, the spool will be lifted out of its seat. Hydraulic fluid flows from main port 2 to main port 1.

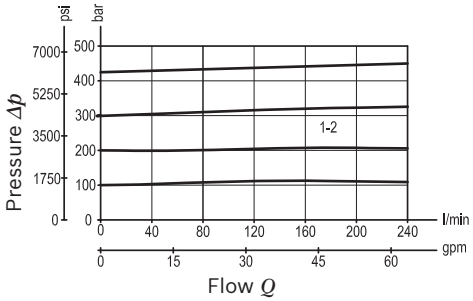
Technical data	
Max. operating pressure port 1 (P)	420 bar (6000 psi)
Max. pressure admitted port 2 (T)	50 bar (725 psi)
Max. flow	240 l/min. (63 gpm)
Max. internal leakage[1)]	45 drops/min.
Fluid temperature range	-30 to 100 °C (-22 to 212 °F) (Buna N) -20 to 120 °C (-4 to 248 °F) (Viton)
Installation torque	120-125 Nm (89-93 ft-lbs)
Weight	0.32 kg (0.71 lbs)
Common cavity	CA-16A-2N (see data sheet 18325-70)
Lines bodies and standard assemblies	Please refer to section “Hydraulic integrated circuit” or consult factory
Seal kit (NBR)	Code: RG22A2020520100
	material no: R930072314
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
Surface protection	Zinc plated with sealant

1) At 80% of pressure setting.



Characteristic curve





Ordering code

VMR2.16A.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)
030	100-420 (1450-6090)	300 (4350)	Viton (FKM)

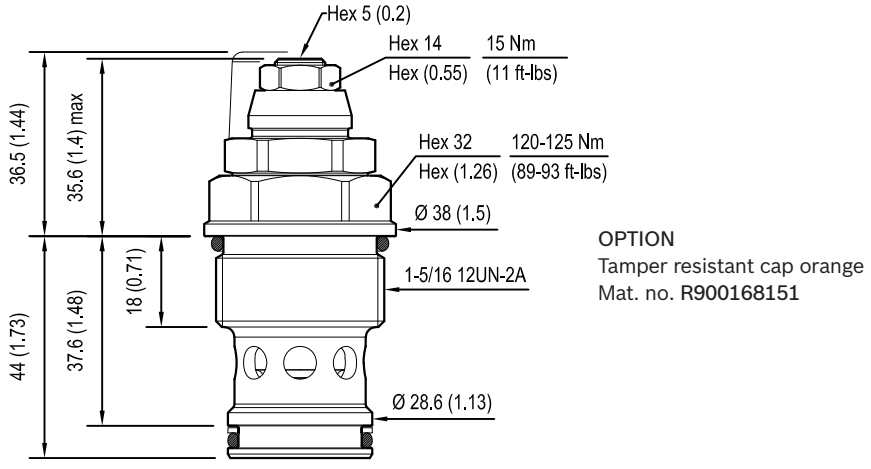
* Valves are delivered set at pressure setting <25 bar and with adjustment device not tighten. Fine setting to be done by customer. For case of request of factory set valve, please consult factory.

Preferred types

Type	Material number
VMR2.16A.NG.000	R930072414
VMR2.16A.NG.030	R930072415

Type	Material number

Dimensions



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