

Counterbalance, relief compensated
poppet type differential area
Common cavity, Size 20

VBSP-20A

04.54.13 - X - 58 - Z

RE 18320-10

Edition: 02.2019

Replaces: 03.2016



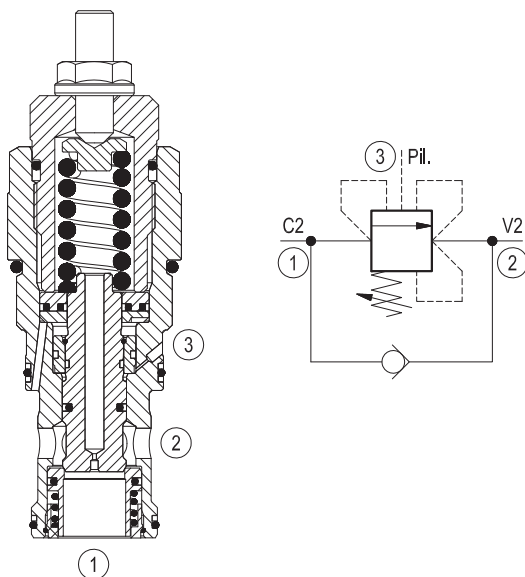
| Technical data | |
|---|--|
| Max. operating pressure | 350 bar (5000 psi) |
| Max. flow | 320 l/min (85 gpm) |
| Max. internal leakage ¹⁾ | 15 drops/min. |
| Fluid temperature range | -30 to 100 °C (-22 to 212 °F) |
| Installation torque | 128 - 149 Nm (95 - 110 ft-lbs) |
| Weight | 1.12 kg (2.5 lbs) |
| Cavity | CA-20A-3C (see data sheet 18325-70) |
| Lines bodies and standard assemblies | Please refer to section "Hydraulic integrated circuit" or consult factory |
| Seal kit ²⁾ | Code: RG20A9010530100 material no: R901111397 |
| 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.

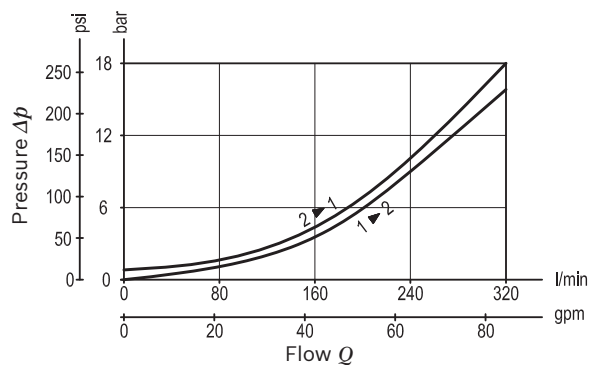
- 1) At 70% of pressure setting
- 2) Only external seals for 10 valves

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. The valve applies a balanced piston design allowing relief operation at the valve setting independent of back-pressure at 2. However, the piloted opening of the valve remains subject to additive pressure at port 2.



Characteristic curve



Ordering code

| | | | | | |
|-----------------|----------|-----------|----------|-----------|----------|
| 04.54.13 | X | 58 | Z | 00 | * |
|-----------------|----------|-----------|----------|-----------|----------|

Counterbalance, relief compensated, poppet type differential area

Pilot ratio

03 4:1 Without sealed pilot piston

58 Common cavity, Size 20

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) Q=5 l/min |
| 20 | 70-210 (1000-3000) | 70 (1015) | 200 (2900) |
| 35 | 140-350 (2000-5000) | 108 (1566) | 350 (5000) |

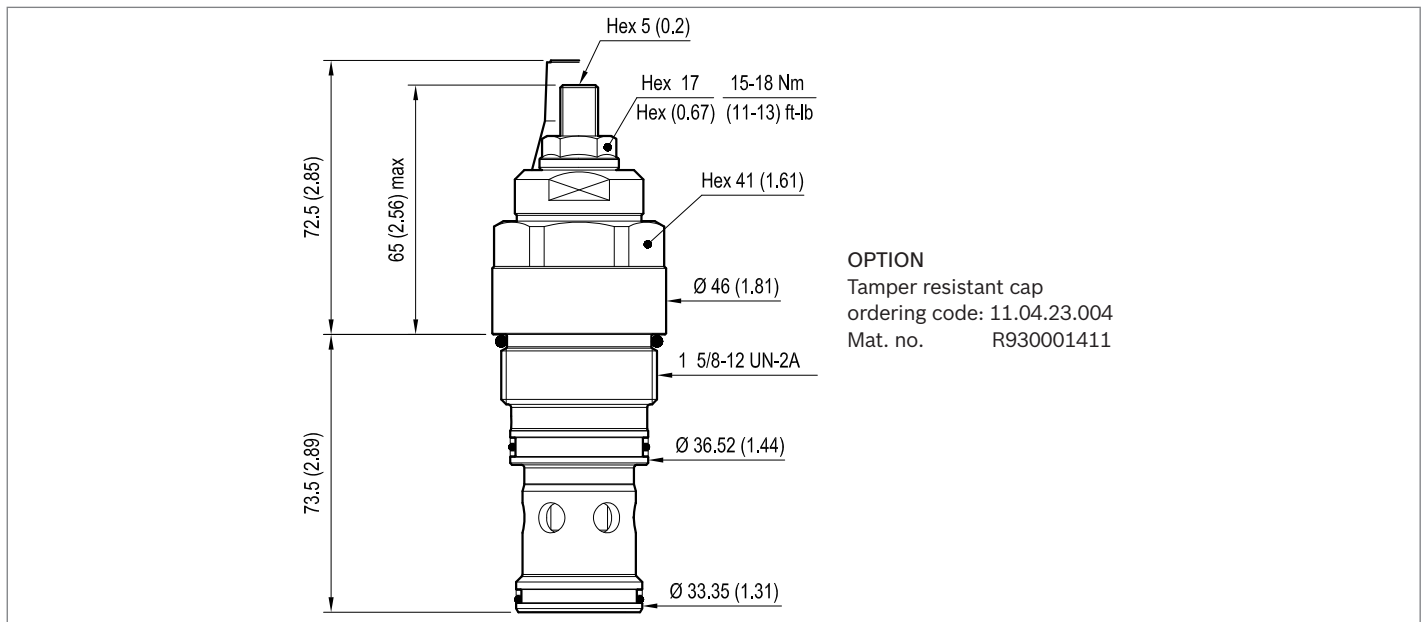
Note: Special settings available. Contact factory authorized representative for ordering code.

Preferred types

| Type | Material number |
|-----------------|-----------------|
| 045413035820000 | R901099735 |
| 045413035835000 | R901099795 |

| Type | Material number |
|------|-----------------|
| | |
| | |

Dimensions



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