

Counterbalance, standard poppet type  
differential area  
Common cavity, Size 20

VBSN-20A

04.52.25 - X - 58 - Z

**RE 18320-05**

Edition: 06.2020

Replaces: 03.2016



**Technical data**

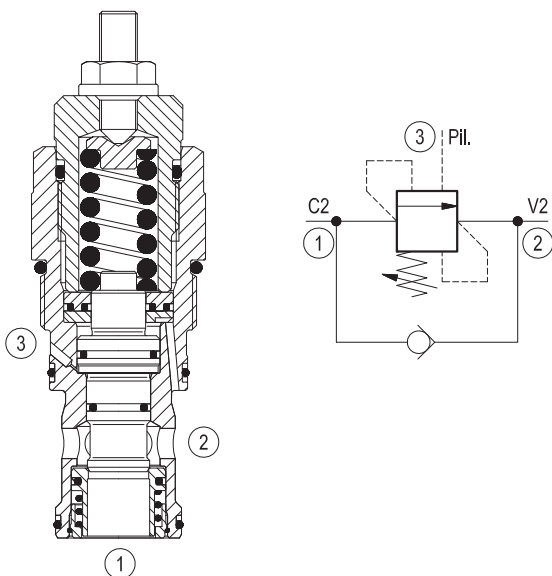
Max. operating pressure	350 bar (5000 psi)
Max. flow	320 l/min (85 gpm)
Max. internal leakage <sup>1)</sup>	15 drops/min.
Fluid temperature range	-30 to 100 °C (-22 to 212 °F)
Installation torque	128 - 149 Nm (95 - 110 ft-lbs)
Weight	1.12 kg (2.5 lbs)
Cavity	CA-20A-3C (see data sheet 18325-70)
MTTFD	150 years see RE 18350-51
Lines bodies and standard assemblies	Please refer to section "Hydraulic integrated circuit" or consult factory
Seal kit <sup>2)</sup>	Code: RG20A9010530100 material no: R90111397
Fluids	Mineral-based or synthetics with lubricating properties at viscosities of 10 to 500 mm <sup>2</sup> /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

**Description**

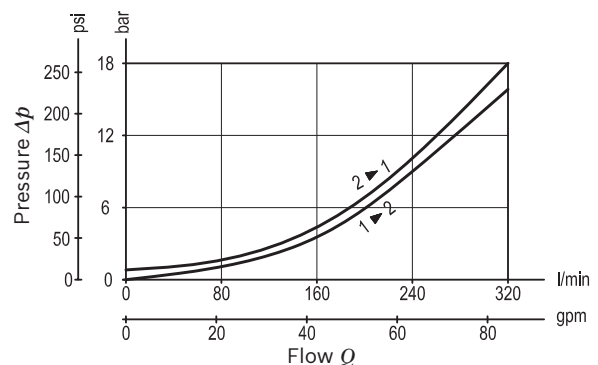
When pressure at 2 rises above the spring bias pressure, the check seat is pushed away from the piston and flow is allowed from 2 to 1. When load pressure at 1 rises above the pressure setting, the direct-acting, differential area relief function is activated and flow is relieved from 1 to 2. With pilot 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.

Pressure setting: at least 1.3 times the load induced pressure.

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



**Characteristic curve**



**Ordering code**

<b>04.52.25</b>	<b>X</b>	<b>58</b>	<b>Z</b>	<b>00</b>	<b>*</b>
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Counterbalance,  
standard poppet type, differential area

Pilot ratio

**03** 4:1

**10** 8:1

**58** Common cavity, Size 20

Series 0/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
for X= 03	<b>20</b>	70-210 (1000-3000)	70 (1015)	200 (2900)
	<b>35</b>	140-350 (2000-5000)	108 (1566)	350 (5000)
for X= 10	<b>20</b>	70-210 (1000-3000)	70 (1015)	200 (2900)
	<b>40</b>	140-420 (2000-6000)	135 (1958)	350 (5000)

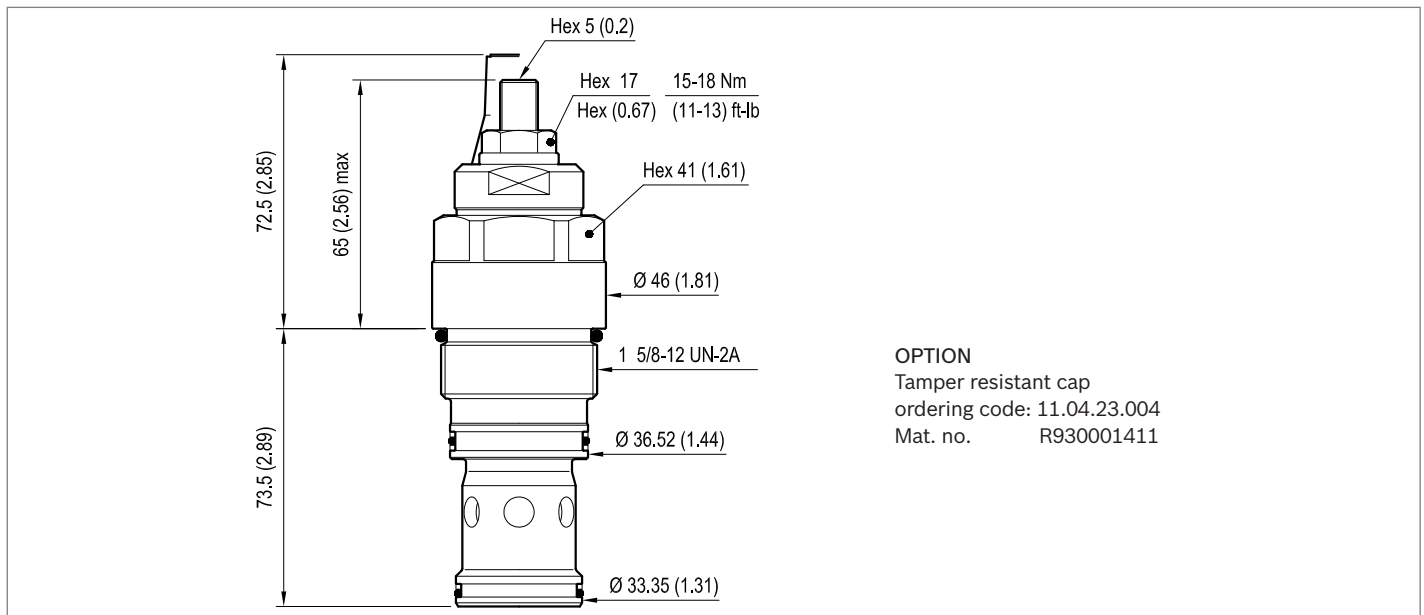
Note: Special settings available. Contact factory authorized representative for ordering code.

**Preferred types**

Type	Material number
045225035820000	R901096052
045225035835000	R901096053
045225105820000	R930000852
045225105840000	R901096057

Type	Material number

**Dimensions**



OPTION  
Tamper resistant cap  
ordering code: 11.04.23.004  
Mat. no. R930001411

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