

Counterbalance, standard guided poppet type,  
fixed setting  
Eaton cavity interchange, 22903

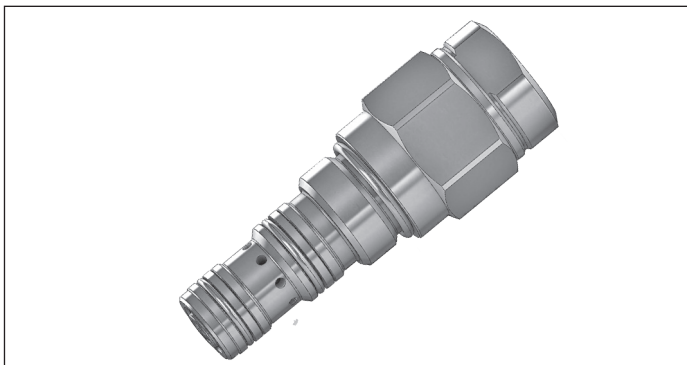
VBSN-07HH-TF

04.52.50 - X - 18 - Z

**RE 18320-33**

Edition: 06.2017

Replaces: 03.2016

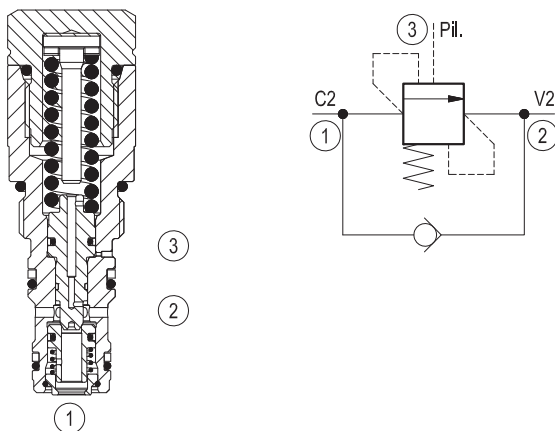


Technical data	
Max. operating pressure	350 bar (5000 psi)
Max. flow	20 l/min. (5.3 gpm)
Max. internal leakage <sup>1)</sup>	15 drops/min.
Fluid temperature range	-30 to 100 °C (-22 to 212 °F)
Installation torque	30-35 Nm (22-26 ft-lbs)
Weight	0.22 kg (0.48 lbs)
Cavity	Eaton 22903 (CA-07H-3C)
Lines bodies and standard assemblies	Please refer to section "Hydraulic integrated circuit" or consult factory
Seal kit <sup>2)</sup>	Code: RG07H9010520100 material no: R930057364
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

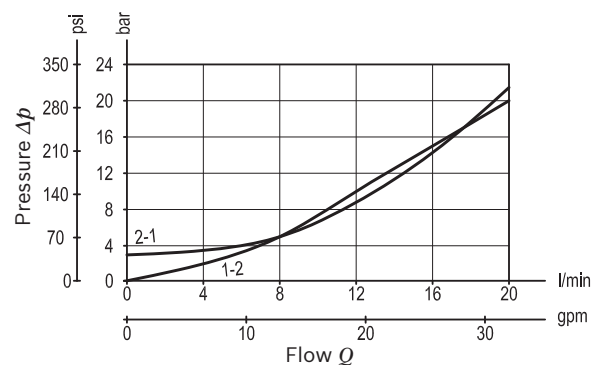
**Description**

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.

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



**Characteristic curve**



**Ordering code**

<b>04.52.50</b>	<b>X</b>	<b>18</b>	<b>Z</b>	<b>00</b>	<b>*</b>
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Counterbalance,  
standard guided poppet type, fixed setting

Pilot ratio

**03** 3.2:1

**10** 8:1

**18** Eaton cavity interchange, 22903

Series 0/A to L  
unchanged performances and dimensions

Version and options standard

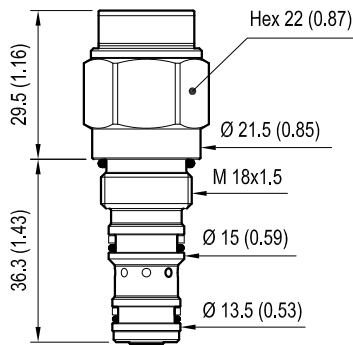
SPRINGS	
Std. setting bar (psi) cracking pressure	
<b>19</b>	190 ± 15 (2755 ± 218)
<b>27</b>	270 ± 15 (3915 ± 218)
<b>30</b>	300 ± 15 (4350 ± 218)

**Preferred types**

Type	Material number
045250031827000	R930056576
045250031830000	R930056577

Type	Material number
045250101819000	R930063488

**Dimensions**



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