

# Single counterbalance, relief compensated

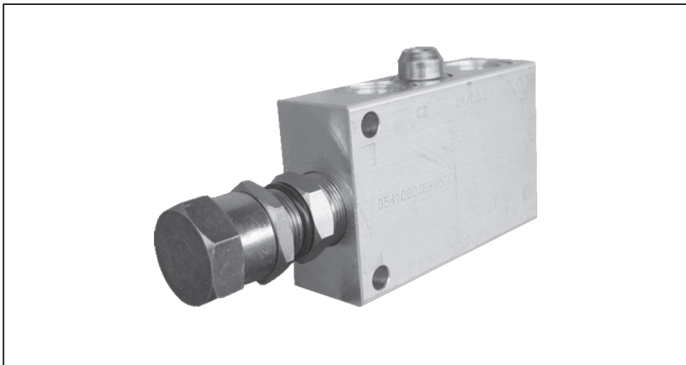
VBSO-SE-CC

05.41.06 - X - Y - Z

**RE 18307-51**

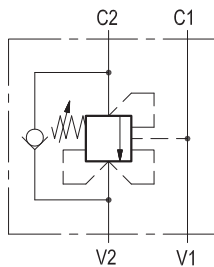
Edition: 03.2016

Replaces: 04.2010



## Description

When pressure at V2 rises above the spring bias pressure, the check valve poppet is pushed away from the piston and flow is allowed from V2 to C2. When load pressure at C2 rises above the pressure setting, the relief function is activated and flow is relieved from C2 to V2. With pilot pressure at V1-C1, the pressure setting is reduced in proportion to the pilot ratio, until opening and allowing flow from C2 to V2. The spring chamber is drained to V2. The valve applies a balanced piston allowing relief operation at the valve setting independent of back-pressure at V2. However, the piloted opening of the valve remains subject to additive pressure at port V2.

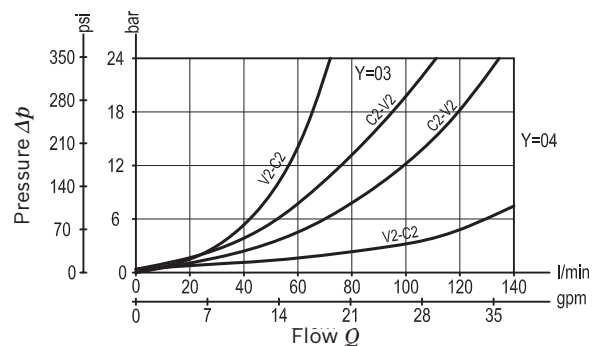


## Technical data

Operating pressure	up to 210 bar (3000 psi)
Max. flow	see performance graph
Weight	see "Dimensions"
Manifold material	Aluminium
Note: aluminium bodies are often strong enough for operating pressures exceeding 210 bar (3000 psi), depending from the fatigue life expected in the specific application. If in doubt, consult our Service Network.	
Fluid	Mineral oil (HL, HLP) according DIN 51524
Fluid temperature range	-30 °C to 100 (-22 to 212 °F)
Viscosity range	5 to 800 mm <sup>2</sup> /s (cSt)
Recommended degree of fluid contamination	Class 19/17/14 according to ISO 4406
Other technical data	see data sheet 18350-50
Relief setting: at least 1.3 times the highest expected load.	

Note: for applications outside these parameters, please consult us.

## Characteristic curve



**Ordering code**

<b>05.41.06</b>	<b>X</b>	<b>Y</b>	<b>Z</b>
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Single counterbalance,  
relief compensated

Pilot ratio

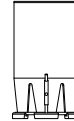
**02** 8.2 : 1

**10** 3.2 : 1

Port sizes	V1 - V2	C1 - C2	
<b>03</b>	G 1/2	G 1/2	
<b>04</b>	G 3/4	G 3/4	

SPRINGS			
	Adj. pressure range bar (psi)	Pres. increase bar/turn (psi/turn)	Std. setting Q=5 (l/min) bar (psi)
<b>20</b>	60-210 (870-3000)	54 (783)	200 (2900)
<b>35</b>	100-350 (1450-5000)	95 (1378)	350 (5000)

Tamper resistant cap code  
ordering code 03.05.01.001  
Mat. no. R930000470



**Preferred types**

Type	Material number
054106020320000	R930001670
05410602033500A	R930001671
054106020420000	R930001674
05410602043500A	R930001675
054106100320000	R930001678

Type	Material number
05410610033500A	R930001680
054106100420000	R930001941
054106100435000	R930001687

**Dimensions**

40 (1.58)	10 (0.39)	34 (1.34)	54.5 (2.15)	62.5 (2.46)	135 (5.32)	65 (2.56)	11 (0.43)	38 (1.5)	9.5 (0.37)	70 (2.76)	89 (3.5)		10.5 (0.41)	G 3/4	1.42 (3.13)
35 (1.38)	10 (0.39)	32.5 (1.28)	40.5 (1.6)	54.5 (2.15)	113 (4.55)	65 (2.56)	11 (0.43)	33.5 (1.32)	7.5 (0.3)	54 (2.13)	70 (2.76)		8.5 (0.34)	G 1/2	0.9 (1.98)
S	L4	L3	L2	L1	L	I	H4	H3	H2	H1	H		F	Y	Weight kg (lbs)

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