

# Single counterbalance

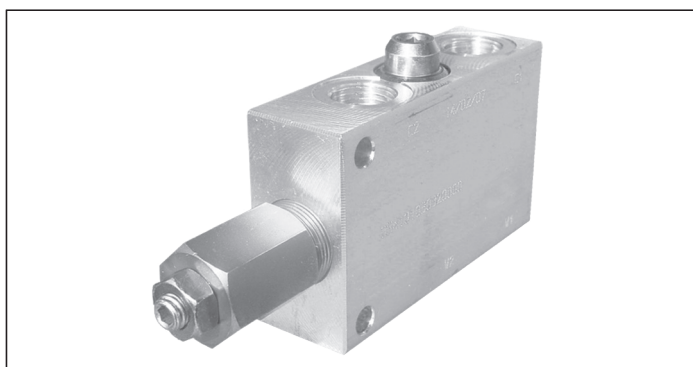
VBSO-SE

05.41.01 - X - Y - Z

**RE 18307-43**

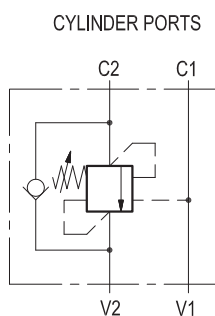
Edition: 03.2016

Replaces: 04.2010



## Description

When pressure at V2 rises above the spring bias pressure, the check valve poppet is pushed away from the seat and flow is allowed from V2 to C2. When load pressure at C2 rises above the pressure setting, the direct operated, differential area, 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 stated ratio of the valve, until opening and allowing flow from C2 to V2. The spring chamber is drained to V2, and any back-pressure at V2 is additive to the pressure setting in all functions.

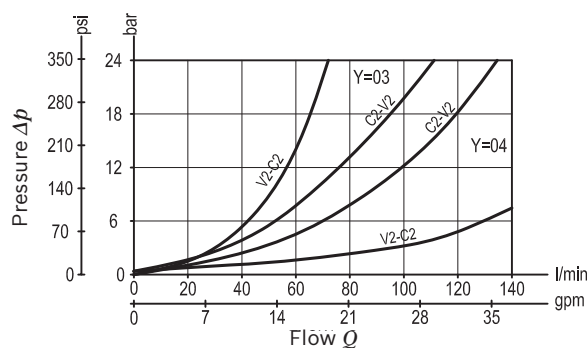


## Technical data

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

05.41.01	X	Y	Z
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Single counterbalance

Pilot ratio

03 8.2 : 1

10 3.2 : 1

Port sizes	V1-V2	C1-C2	
03	G 1/2	G 1/2	
04	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)
20 60-210 (870-3000)	64 (928)	200 (2900)
35 100-350 (1450-5000)	106 (1537)	350 (5000)

Preferred types

Type	Material number
054101030320000	R930001654
05410103033500A	R930001655
054101100320000	R930000088
05410110033500A	R930001662
054101030420000	R930001658

Type	Material number
05410103043500A	R930001659
054101100420000	R930001663
05410110043500A	R930001664

Dimensions

