

Dual counterbalance

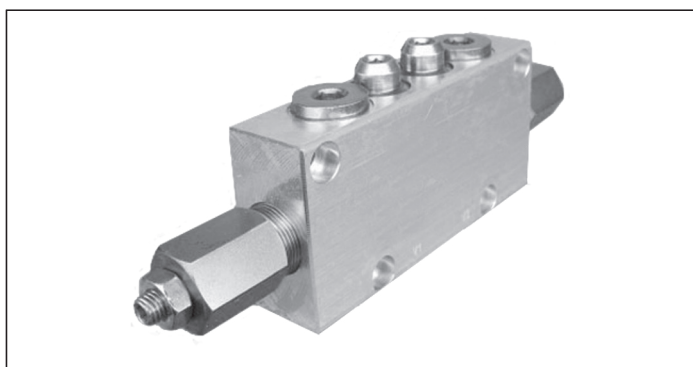
VBSO-DE-FC2

05.42.06 - X - Y - Z

RE 18307-64

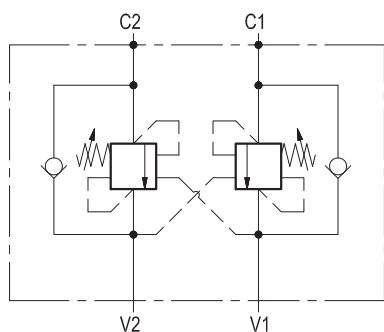
Edition: 03.2016

Replaces: 04.2010



Description

It provides static and dynamic control of load by regulating the flow IN and OUT of the actuator, through ports C1 and C2. This valve module includes 2 sections, each one composed by a check and a relief valve pilot assisted by pressure in the opposite line: the check section allows free flow into the actuator, then holds the load against reverse movement; with pilot pressure applied at the line across, the pressure setting of the relief is reduced in proportion to the stated ratio until opening and allowing controlled reverse flow. Back-pressure at V1 or V2 is additive to the pressure setting in all functions. For better safety and compact assembly, the C1 and C2 ports are gasket mounted directly on the actuator.



Technical data

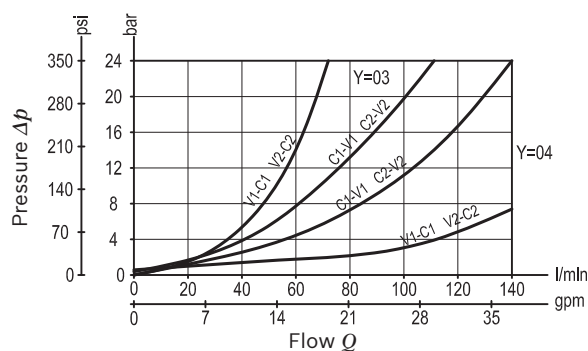
Operating pressure	up to 210 bar (3000 psi)
Max. flow	see performance graph
Weight	see "Dimensions"
Manifold material	Aluminium
Note: aluminium bodies are often strong enough for operating pressures exceeding 210 bar (3000 psi), depending from the fatigue life expected in the specific application. If in doubt, consult our Service Network.	
Flange seal kit (03) ¹⁾	E00000000000008 (R930004538)
Flange seal kit (04) ²⁾	E00000000000020 (R930000144)
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 ² /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.

¹⁾ Seals for 10 valves

²⁾ Seals for 5 valves

Characteristic curve



05.42.06	X	Y	Z
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Dual counterbalance			
Pilot ratio			
03	8.2 : 1		
10	3.2 : 1		

Port sizes	V1 - V2	C1 - C2	
03	G 1/2	Ø 10 (0.39)	
04	G 3/4	Ø 14 (0.55)	

	SPRINGS		
	Adj. pressure range bar (psi)	Pres. increase bar/turn (psi/turn)	Std. setting Q=5 (l/min) bar (psi)
35	120-350 (1750-5000)	106 (1537)	350 (5000)

Type	Material number
05420603033500A	R930001803
05420603043500A	R930001805

Type	Material number
05420610033500A	R930001806
054206100435000	R930001807

Technical drawing of a 4-way valve. The top view shows a cylindrical body with four ports (V1, V2, V3, V4) and four O-ring seals (C1, C2, C3, C4). Dimensions include $\varnothing F1$, $n^{\circ} 4 \text{ holes } \varnothing F$, $S1$, S , L , $L1$, $L2$, $L3$, $L4$, $L5$, $L6$, $H1$, $H2$, $H3$, $H4$, and H . A note specifies "O-Ring 15.08 x 2.62 (0.59 x 0.1)". The bottom view is a cross-section showing the internal valve mechanism with two springs and two O-rings (V1, V2).

39 (1.54)	29 (1.14)	65.1 (6.1)	10 (0.39)	50 (1.97)	62.5 (2.46)	100 (3.94)	27.5 (1.08)	175 (6.89)	56 (2.21)	70 (2.76)	10 (0.39)	11 (0.43)	52 (2.05)	90 (3.54)	10.5 (0.41)	16.5 (0.65)	G 3/4	2.2 (4.9)
34 (1.34)	26 (1.02)	125 (4.92)	10 (0.39)	36 (1.42)	54 (2.15)	73 (2.87)	26 (1.02)	145 (5.71)	56 (2.21)	7.5 (2.13)	7.5 (0.3)	11 (0.43)	37.5 (1.48)	69 (2.72)	8.5 (0.34)	13.5 (0.53)	G 1/2	1.4 (3.09)
S	S1	L6	L5	L4	L3	L2	L1	L	I	H4	H3	H2	H1	H	F	F1	Y	Weight (lbs)

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