

Single counterbalance, relief compensated

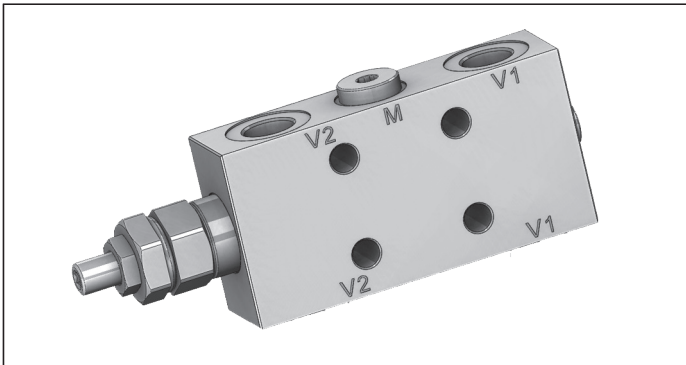
A-VBSO-SE-CC-30-PL-FC2

08.45.21 - X - Y - Z

RE 18307-50

Edition: 03.2016

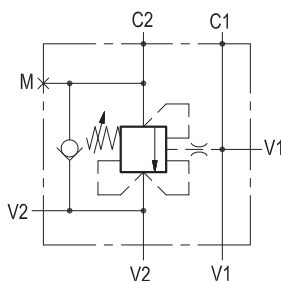
Replaces: 07.2012



Description

When pressure at V2 rises above the spring bias pressure, the check seat is pushed away from the piston and flow is allowed from V2 to C2. When pressure at C2 rises above the setting, 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. The valve applies a balanced piston design 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. For better safety and compact assembly, the C1 and C2 ports are gasket mounted directly on the actuator.

Note: port identified with M are not protected with calibrated orifice but in direct connection with pressure channels.



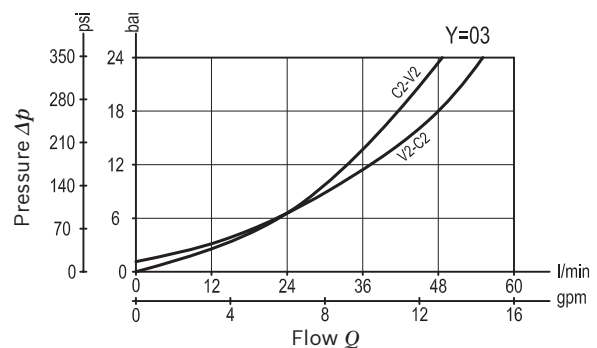
Technical data

Max. operating pressure	410 bar (5945 psi)
Max. flow	60 l/min. (16 gpm)
Weight	see "Dimensions"
Manifold material	Zinc plated steel
Flange seal kit ¹⁾	E00000000000014 (R930005947)
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
MTTFd	150 years see data sheet 18350-51
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.

Characteristic curve



Ordering code

08.45.21	X	Y	Z
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Single counterbalance,
relief compensated

Pilot ratio

03 4.2 : 1

Port sizes	V1 - V2 - C1	C2	M
02	G 3/8	∅ 9 (0.35)	G 1/4
03	G 1/2	∅ 9 (0.35)	G 1/4

	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)	75 (1088)	200 (2900)
35	200-350 (2900-5000)	168 (2436)	350 (5000)

Pressure setting up to 410 bar: code on request.

Tamper resistant cap code ordering code 11.04.23.003
Mat. no. R930000754



Preferred types

Type	Material number
084521030220000	R930001940
08452103023500B	R930006771
084521030320000	R930001939
08452103033500B	R930006938

Type	Material number

Dimensions

Technical drawing showing front, side, and cross-sectional views of the counterbalance valve. Dimensions are provided in mm (inches). Key features include ports V1, V2, C1, C2, M, and a tamper-resistant cap. An O-Ring 10.77 x 2.62 (0.42 x 0.1) is specified. The drawing includes a table of dimensions and a weight table.

17.5 (0.69)	34.5 (1.36)	36 (1.42)	36 (1.42)	55.3 (2.18)	57 (2.24)	18 (0.71)	71.8 (2.83)	109 (4.29)	3.5 (0.14)	47.5 (2.07)	4.5 (0.18)	30 (1.18)	65 (2.56)	8.5 (0.34)	G 1/2	1.81 (3.99)
15 (0.59)	29.5 (1.16)	36 (1.42)	36 (1.42)	55.3 (2.18)	57.3 (2.26)	18 (0.71)	70.3 (2.77)	109 (4.29)	3.5 (0.14)	47.3 (1.86)	4.5 (0.18)	30 (1.18)	55 (2.17)	8.5 (0.34)	G 3/8	1.29 (2.84)
S1	S	L6	L5	L4	L3	L2	L1	L	I1	I	H2	H1	H	F	Y	Weight kg (lbs)