

Dual counterbalance relief compensated

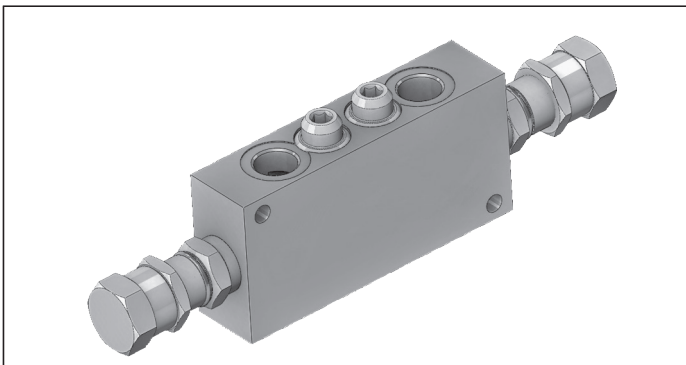
VBSO-DE-CC

05.42.05 - X - Y - Z

RE 18307-68

Edition: 04.2023

Replaces: 03.2016



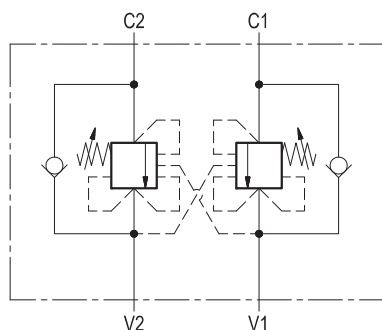
Technical data

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 ² /s (cSt)
Recommended degree of fluid contamination	Class 19/17/14 according to ISO 4406
MTTFD	150 years see RE 18350-51
Other technical data	see data sheet 18350-50

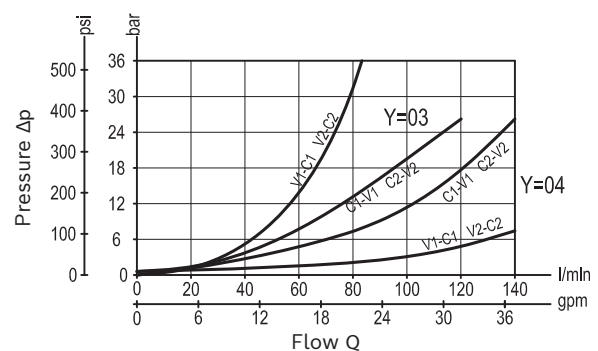
Note: for applications outside these parameters, please consult us.

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 with balanced piston, 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. Relief operates at the valve setting independent of back-pressure, but the piloted opening remains subject to additive pressure at V1 or V2.



Characteristic curve



Ordering code

05.42.05	X	Y	Z
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Dual counterbalance
relief compensated

Pilot ratio

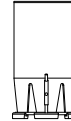
02 8.2 : 1

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 (900-3000)	54 (783)	200 (2900)
35	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
054205020320000	R930001786
05420502033500A	R930001787
054205020420000	R930001789
05420502043500B	R930001790

Type	Material number
054205100320000	R930001942
05420510033500A	R930001794
054205100420000	R930001943
05420510043500A	R930001799

Dimensions

Technical drawings of the VBSO-DE-CC valve showing front, side, and cross-sectional views with dimension labels. The front view shows ports V1, V2, C1, and C2, and n°2 holes of diameter Ø F. The side view shows dimensions L, L1, L2, L3, L4, L5, L6, L, H1, H2, H, and H3. The cross-sectional view shows the internal components and ports V1, V2, C1, and C2.

40 (1.58)	155 (6.1)	10 (0.39)	107 (4.21)	34 (1.34)	50 (1.97)	62.5 (2.46)	175 (6.89)	62 (2.44)	11 (0.43)	70 (2.76)	10 (0.39)	90 (3.54)	10.5 (0.41)	G 3/4	2.2 (4.9)
35 (1.38)	125 (4.92)	10 (0.39)	80 (3.15)	32.5 (1.28)	36 (1.42)	54.5 (2.15)	145 (5.71)	62 (2.44)	11 (0.43)	54 (2.13)	8 (0.32)	70 (2.76)	8.5 (0.34)	G 1/2	1.45 (3.2)
S	L6	L5	L4	L3	L2	L1	L	I	H3	H2	H1	H	F	Y	Weight kg (lbs)

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