

Load lowering and relief

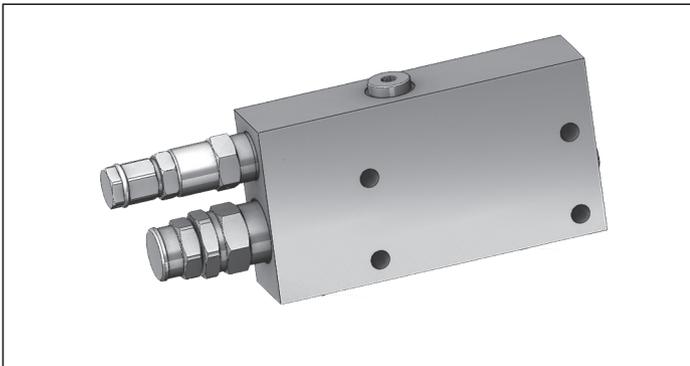
VRBC90-VS30-CC-FC2

05.37.38 - X - Y - Z

RE 18310-31

Edition: 03.2016

Replaces: 07.2012



Technical data

Operating pressure	up to 210 bar (3000 psi)
Max. flow	90 l/min. (24 gpm)
Weight	1.5 kg (3.3 lbs)
Manifold material	Anodized 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 ¹⁾	E00000000000009 (R930004539)
Fluid	Mineral oil (HL, HLP) according DIN 51524
Fluid temperature range	-30 °C to 100 (-22 to 212 °F)
Viscosity range	10 to 500 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.	

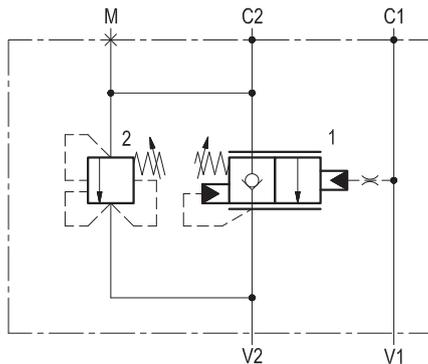
Note: for applications outside these parameters, please consult us.

¹⁾ Seals for 10 valves

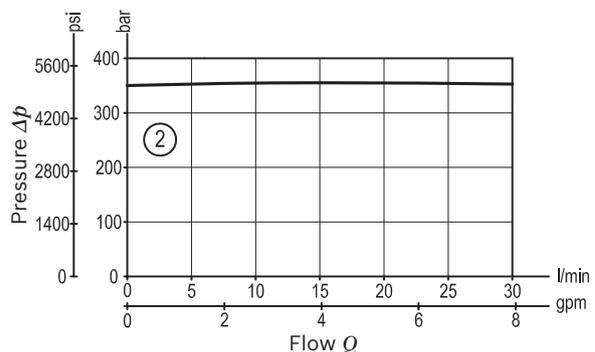
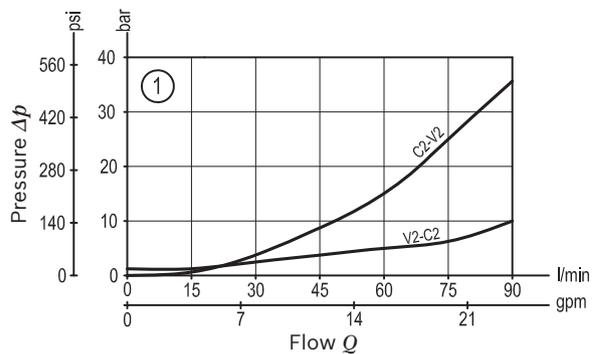
Description

When pressure at V2 rises above the check spring bias pressure, the check seat is pushed open and upstream flow is allowed from V2 to C2. Reverse flow (C2 - V2) is locked, in a leak free mode, by valve (1). Downstream flow (C2 - V2) is possible when C1-V1 pressure rises above the bias pressure of the valve (1) spring. The back-pressure at V2 is directly additive to the spring and tends to close the control plunger: it restricts the flow area and it increases the pressure drop through valve (1). If C1-C1 pressure is limited and kept constant, also back-pressure at V2 will remain constant, and downstream flow (C2 - V2) will stay constant, controlled only by the Main Control Valve opening (V2 to T), independently from the load (C2 pressure). The result is easier and better control during lowering. The leak free pressure relief valve (2) senses C2 pressure and opens under overload or shock conditions. For better safety and compact assembly, the C2 port is gasket mounted directly on the actuator.

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



Characteristic curve



Ordering code

05.37.38	X	Y	Z
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Load lowering and relief

Adjustments

00 Inner hex. socket screw protected by locking nut

Port sizes	V1 - V2	M	C1 - C2
03	G 1/2	G 1/4	Ø 9 (0.35)

		SPRINGS		
		Adj. pressure range bar (psi)	Pres. increase bar/turn (psi/turn)	Std. setting bar (psi)
35	Valve 1	10-30 (145-435)	8 (116)	30 (435) "cracking"
	Valve 2	100-350 (1450-5000)	85 (1233)	350 (5000) "5 l/min"

Tamper resistant cap ordering code 11.04.33.001
 Mat. no. R930005387
 for Valve 1

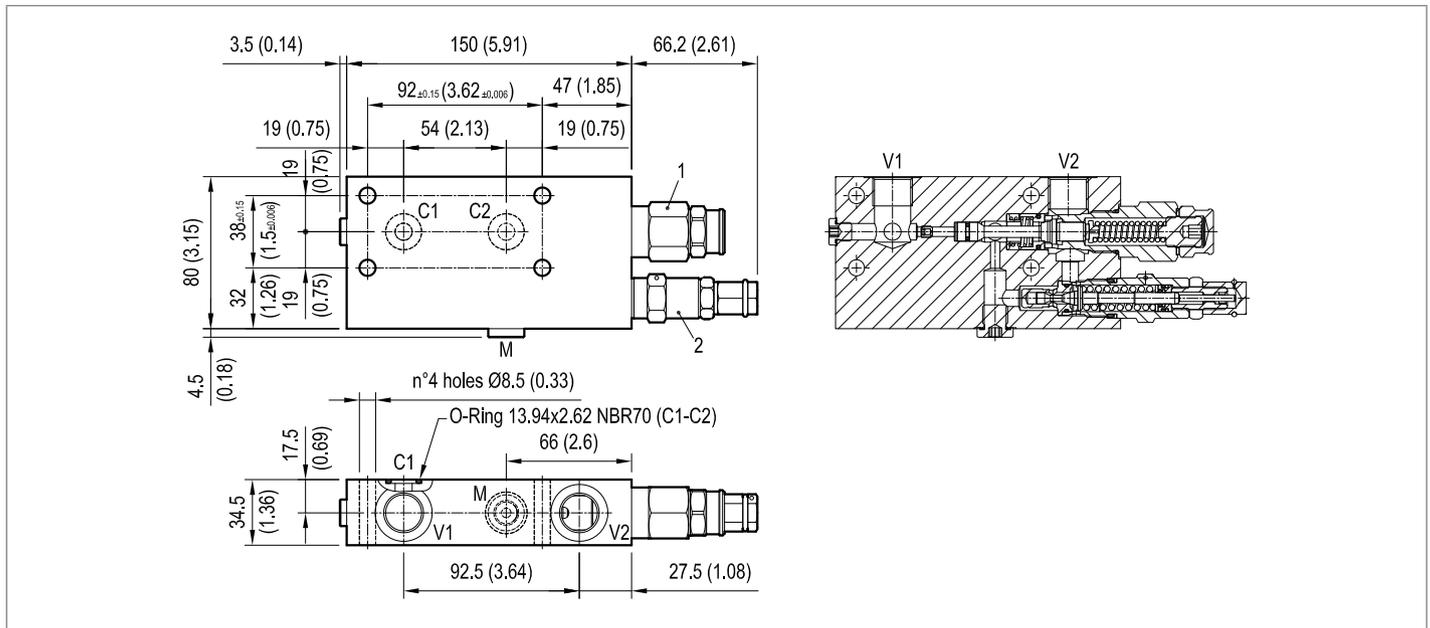


Preferred types

Type	Material number
05373800033500A	R930007469

Type	Material number

Dimensions



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