

# Single counterbalance with brake release port for winches flangeable to motor

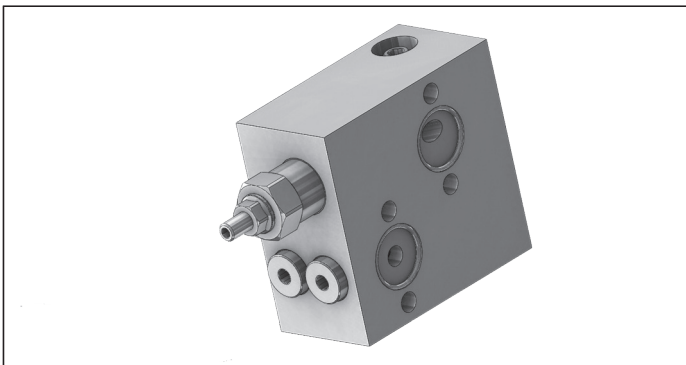
VBSO-SE-FA-RD-30

05.45.24 - X - Y - Z

**RE 18308-40**

Edition: 03.2016

Replaces: 04.2010



## Technical data

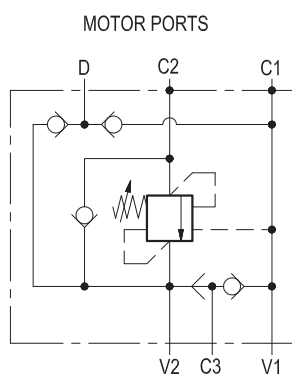
Operating pressure	up to 210 bar (3000 psi)
Max. flow	60 l/min. (16 gpm)
Flangeable on SAUER-DANFOSS orbital motors OMP-OMR series.	
Relief setting: at least 1.3 times the highest expected load. In addition, both the relief setting and the pilot ratio must be determined also in order to achieve building-up of pilot pressure in V1 high enough to release the brake prior to any valve opening from C2 to V2.	
Weight	1.25 kg (2.8 lbs)
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 <sup>1)</sup>	E00000000000058 (R930060588)
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 <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.

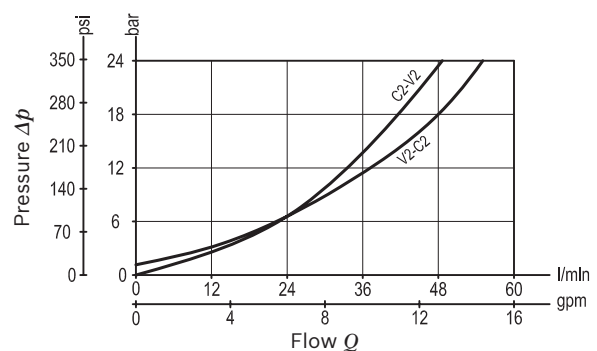
<sup>1)</sup> Seals for 10 valves

## 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 load pressure at C2 rises above the pressure setting, the direct operated 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. Through port C3, an incorporated shuttle valve directs either V1 or V2 line pressure to the spring actuated brake for brake opening. Through port D, a twin check valve system recovers any oil drain from the motor and delivers it to either V1 or V2 line, depending on which one is open to tank.



## Characteristic curve



**Ordering code**

<b>05.45.24</b>	<b>X</b>	<b>Y</b>	<b>Z</b>
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with brake release port for winches  
flangeable to motor

Pilot ratio

**03** 4.2:1

Port sizes	V1 - V2	C1 - C2	C3 - D
<b>03</b>	G 1/2	Ø 8.5 (0.34)	G 1/4

SPRINGS			
	Adj. pressure range bar (psi)	Pres. increase bar/turn (psi/turn)	Std. setting Q=5 (l/min) bar (psi)
<b>20</b>	60-210 (900-3000)	56 (812)	200 (2900)

Tamper resistant cap  
ordering code 11.04.23.002  
Mat. no. R930000752

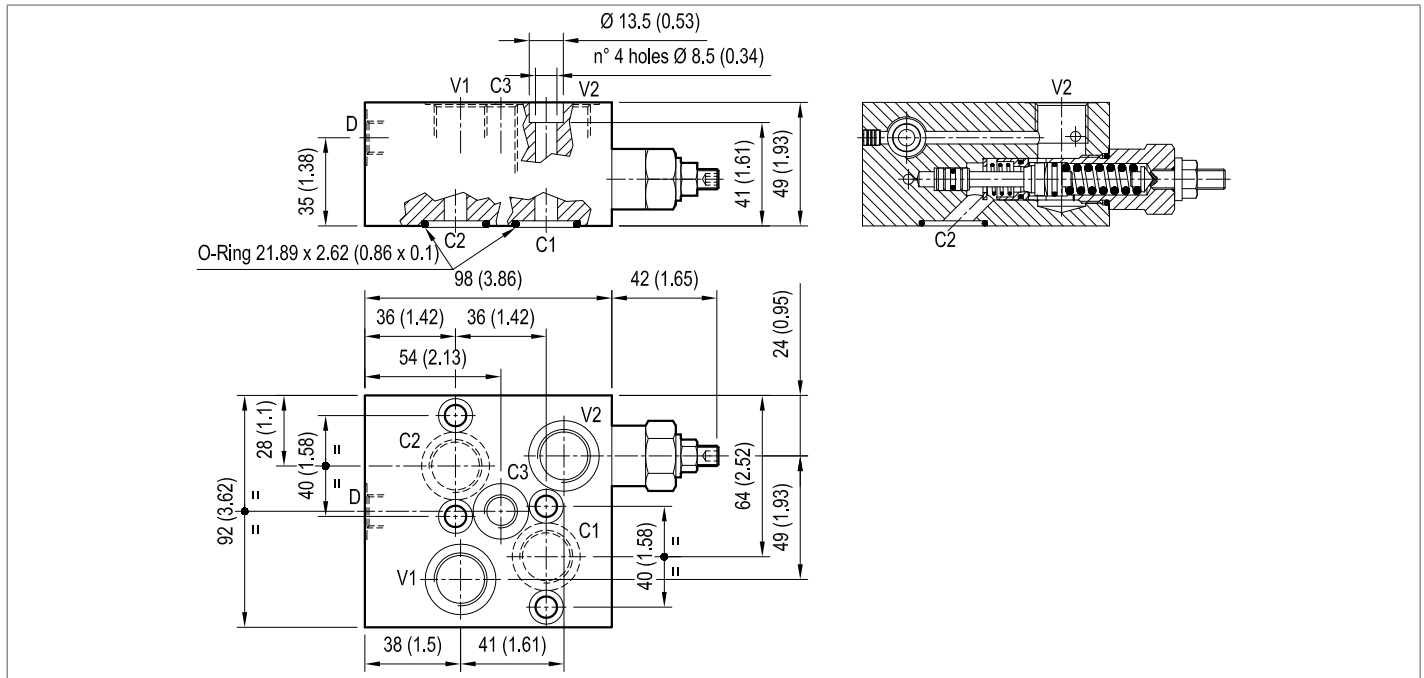


**Preferred types**

Type	Material number
05452403032000A	R930002088

Type	Material number

**Dimensions**



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