

# Single counterbalance, relief compensated

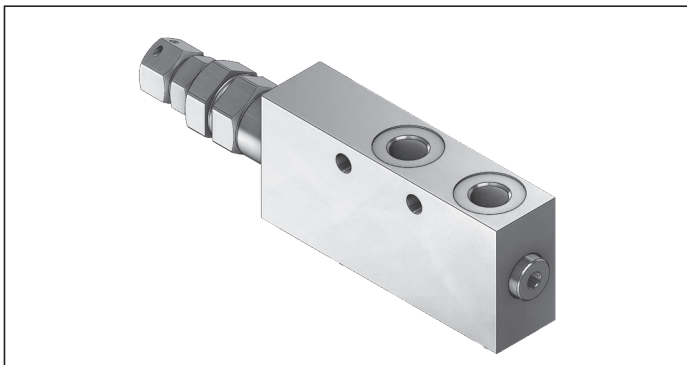
A-VBSO-SE-CC-78

08.39.27 - X - Y - Z

**RE 18308-44**

Edition: 02.2023

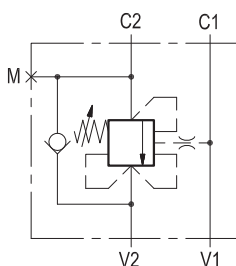
Replaces: 03.2016



## 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.

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

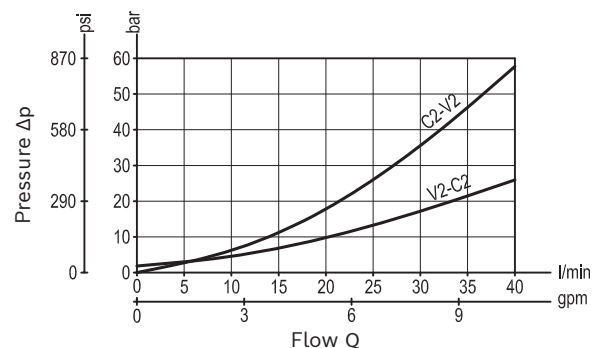


## Technical data

|  |   |
|--|---|
| Max. operating pressure  | 350 bar (5000 psi)                        |
| Max. flow  | 40 l/min. (11 gpm)                        |
| Weight   | 0.91 kg (2 lbs)                           |
| Manifold material  | Zinc plated steel                         |
| 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 <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                   |
| MTTFD  | 150 years see RE 18350-51                 |
| Relief setting: at least 1.3 times the load induced pressure.                                    |   |
| The pilot line includes adjustable hydraulic damping, for fine tuning of stability and response. |   |

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

## Characteristic curve



Ordering code

Single counterbalance,  
relief compensated

Pilot ratio

**03**     4.1 : 1

| 08.39.27 | X | Y | Z |
|----------|---|---|---|
|----------|---|---|---|

| 35 | SPRINGS                             |  |  |
|----|-------------------------------------|--|--|
|    | Adj. pressure<br>range<br>bar (psi) | Pres. increase<br>bar/turn<br>(psi/turn) | Std. setting<br>Q=5 (l/min)<br>bar (psi) |
|    | 200-350<br>(2900-5000)              | 210<br>(3000)                            | 350<br>(5000)                            |

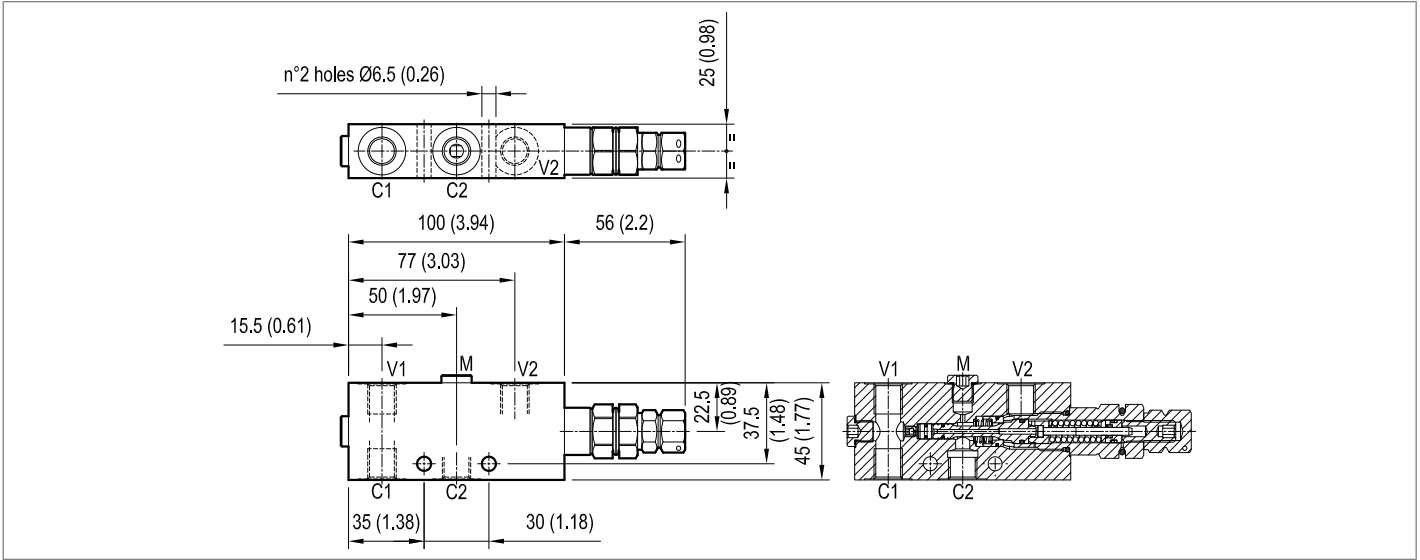
| Port sizes | V1 - V2 | C1 - C2 | M     |
|------------|---------|---------|-------|
| <b>09</b>  | G 1/4   | G 1/4   | G 1/8 |

Preferred types

| Type            | Material number |
|-----------------|-----------------|
| 083927030935000 | R930001966      |

| Type | Material number |
|------|-----------------|
|      |                 |
|      |                 |

Dimensions



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