

# Single counterbalance

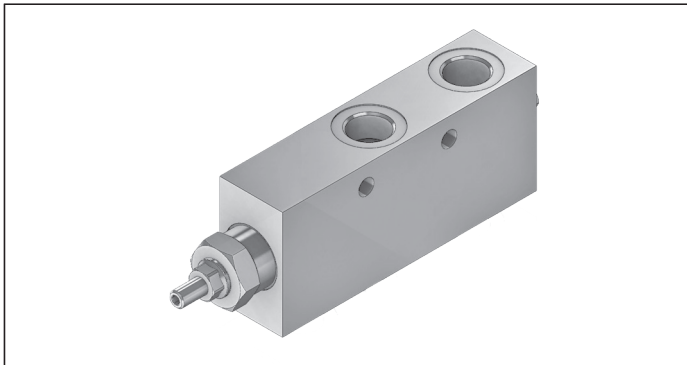
A-VBSO-SE-90-PL

08.39.28 - X - Y - Z

**RE 18308-45**

Edition: 03.2016

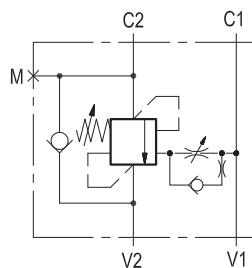
Replaces: 07.2012



## 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 load pressure at C2 rises above the pressure setting, the direct operated, differential area, 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.

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



## Technical data

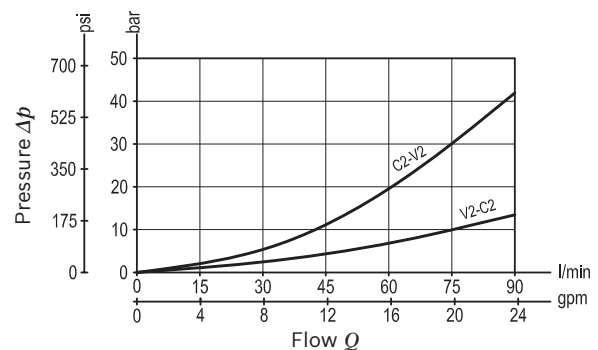
|   |   |
|---|---|
| Max. operating pressure                   | 410 bar (5945 psi)                        |
| Max. flow                                 | 90 l/min. (24 gpm)                        |
| Weight                                    | 2.2 kg (4.8 lbs)                          |
| Manifold 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                   |

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



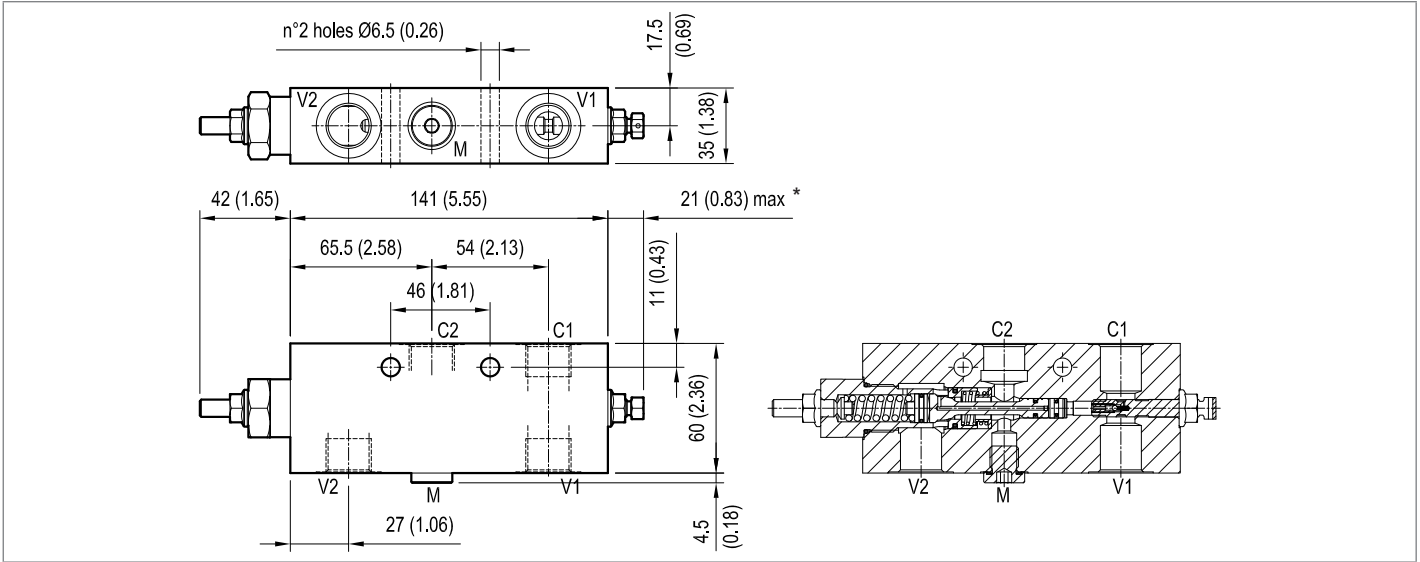
Ordering code

| 08.39.28   |  | X   | Y     | Z |         |  |  |                                  |  |  |                              |               |               |
|--|--|---|-------|---|---------|--|--|----------------------------------|--|--|------------------------------|---------------|---------------|
| Single counterbalance  |  |   |       |   |         |  |  |                                  |  |  |                              |               |               |
| Pilot ratio  |  |   |       |   |         |  |  |                                  |  |  |                              |               |               |
| 13   | 4.2 : 1                                  |   |       |   |         |  |  |                                  |  |  |                              |               |               |
|  |  | <table><tr><th colspan="3">SPRINGS</th></tr><tr><td>Adj. pressure range<br/>bar (psi)</td><td>Pres. increase<br/>bar/turn<br/>(psi/turn)</td><td>Std. setting<br/>Q=5 (l/min)<br/>bar (psi)</td></tr><tr><td>35<br/>180-350<br/>(2610-5000)</td><td>138<br/>(2001)</td><td>350<br/>(5000)</td></tr></table> |       |   | SPRINGS |  |  | Adj. pressure range<br>bar (psi) | Pres. increase<br>bar/turn<br>(psi/turn) | Std. setting<br>Q=5 (l/min)<br>bar (psi) | 35<br>180-350<br>(2610-5000) | 138<br>(2001) | 350<br>(5000) |
| SPRINGS  |  |   |       |   |         |  |  |                                  |  |  |                              |               |               |
| Adj. pressure range<br>bar (psi)   | Pres. increase<br>bar/turn<br>(psi/turn) | Std. setting<br>Q=5 (l/min)<br>bar (psi)  |       |   |         |  |  |                                  |  |  |                              |               |               |
| 35<br>180-350<br>(2610-5000)   | 138<br>(2001)                            | 350<br>(5000)   |       |   |         |  |  |                                  |  |  |                              |               |               |
| Pressure setting up to 410 bar: code on request.                                   |  |   |       |   |         |  |  |                                  |  |  |                              |               |               |
| Tamper resistant cap code<br>ordering code 11.04.23.002<br>Mat. no. R930000752     |  |   |       |   |         |  |  |                                  |  |  |                              |               |               |
|  |  |   |       |   |         |  |  |                                  |  |  |                              |               |               |
| Port sizes   | V1 - V2                                  | C1 - C2   | M     |   |         |  |  |                                  |  |  |                              |               |               |
| 03   | G 1/2                                    | G 1/2   | G 1/4 |   |         |  |  |                                  |  |  |                              |               |               |

Preferred types

| Type            | Material number | Type | Material number |
|-----------------|-----------------|------|-----------------|
| 083928130335000 | R930003871      |      |                 |
|                 |                 |      |                 |
|                 |                 |      |                 |

Dimensions



\* The adjusting screw can be completely unscrewed. Do not exceed the indicated protrusion range of the adjusted screw.

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