2-Way Flow Regulator, Pressure Compensated

VSS3-062/S

M22 x 1.5 • Q_{\text{max}} 40 l/min (11 GPM) • p_{\text{max}} 320 bar (4600 PSI)

Technical Features

› Set flow rate independent of load pressure and temperature changes
› Adjusted flow rate depends on the orifice area and set differential pressure
› Hardened precision parts
› High flow capacity
› Quiet and modulated response to load changes
› Used in meter-in, meter out, or bleed-off applications
› Wide range of flow rate options
› Adjustable by allen key or hand screw
› In the standard version, the valve is zinc-coated for 240 h protection acc. to ISO 9227

Functional Description

This pressure compensated, hydraulic flow regulator in the form of a screw-in cartridge with fixed orifice and variable spring setting is designed to control flow rates independently of pressure and temperature, especially in systems where only small movements due to load changes are required. The flow rate stabilization is provided by a pressure compensator in the direction from A to B. The valve will maintain the set flow regardless of pressure variations on the regulated or inlet port.

In flow direction B - A, the valve works as an ordinary throttle valve without pressure compensation. The regulated flow increases with clockwise rotation of the adjustment screw and decreases with counter-clockwise rotation. The desired settings can be locked down.

The valve will maintain the set flow regardless of pressure variations on the regulated or inlet port.

Technical Data

<table>
<thead>
<tr>
<th>Valve size / Cartridge cavity</th>
<th>M22x1.5 / QG2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nominal flow rates</td>
<td>l/min (GPM)</td>
</tr>
<tr>
<td></td>
<td>1.6 (0.4)</td>
</tr>
<tr>
<td></td>
<td>2.5 (0.7)</td>
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<tr>
<td></td>
<td>4 (1.1)</td>
</tr>
<tr>
<td></td>
<td>6.3 (1.7)</td>
</tr>
<tr>
<td></td>
<td>10 (2.6)</td>
</tr>
<tr>
<td></td>
<td>16 (4.2)</td>
</tr>
<tr>
<td></td>
<td>20 (5.3)</td>
</tr>
<tr>
<td>Max. operating pressure</td>
<td>bar (PSI)</td>
</tr>
<tr>
<td>Fluid temperature range (NBR)</td>
<td>°C (°F)</td>
</tr>
<tr>
<td></td>
<td>-30 ... +80 (-22 ... +176)</td>
</tr>
<tr>
<td>Fluid temperature range (FPM)</td>
<td>°C (°F)</td>
</tr>
<tr>
<td></td>
<td>-20 ... +80 (-4 ... +176)</td>
</tr>
<tr>
<td>Mass</td>
<td>kg (lbs)</td>
</tr>
<tr>
<td></td>
<td>0.19 (0.42)</td>
</tr>
</tbody>
</table>

Datasheet

Type

General information

GI_0060

Products and operating conditions

Valve bodies

In-line mounted

SB_0018

SB-QG2-*

Sandwich mounted

SB-04(06)_0028

SB-*QG2*

Cavity details / Form tools

SMT_0019

SMT-QG2*

Spare parts

SP_8010

Characteristics measured at v = 32 mm³/s (156 SUS)

Regulated flow related to input pressure

Flow direction A - B (regulated flow)

Flow rate 1.6

Flow rate 2.5

Flow rate 4

Subject to change - VSS3-062/S_5057_1en_02/2016
Regulated flow related to input pressure

Flow direction A - B (regulated flow)

Flow rate 6.3

Pressure drop related to flow rate

Flow direction B - A (throttling without compensation)

Pressure drop related to flow rate

Regulated flow related to input pressure

Flow direction A - B (regulated flow)

Model S

Model RS

Ordering Code

2-Way flow regulator, pressure compensated M22x1.5

Model
screw-in cartridge

Flow rate
1.4 - 2.7 l/min (0.4 - 0.7 GPM)
3 - 6 l/min (0.8 - 1.6 GPM)
4 - 10 l/min (1.1 - 2.6 GPM)
5 - 16 l/min (1.3 - 4.2 GPM)
8 - 25 l/min (2.1 - 6.6 GPM)
9 - 28 l/min (2.4 - 7.4 GPM)
12 - 40 l/min (3.2 - 10.6 GPM)

Surface treatment
A zinc-coated (ZnCr-3), ISO 9227 (240 h)
B zinc-coated (ZnNi), ISO 9227 (520 h)

Seals
NBR
FPM (Viton)

Adjustment option
S
RS

Subject to change. VSS3-062/S_S057_1en_02/2016