3-Way Flow Regulator, Pressure Compensated

SF32A-K3/I

M27x2 • Q<sub>max</sub> 90 l/min (24 GPM) • p<sub>max</sub> 350 bar (5100 PSI)

Technical Features

› By-pass flow regulator, set flow rate independent of load pressure and temperature changes
› Adjusted flow rate depends on the orifice area and adjusted differential pressure
› Hardened precision parts
› High flow capacity
› Quiet and modulated response to load changes
› Used in meter-in applications
› Wide range of flow rate options
› In the standard version, the valve is zinc-coated for 240 h protection acc. to ISO 9227

Functional Description

A fixed-orifice, pressure compensated hydraulic flow regulating valve in the form of a screw-in cartridge with variable spring setting. It can be used as a priority flow regulator or a 2-way flow regulator when the by-pass port (2) is blocked.

This valve maintains a constant priority flow from port 1 to port 3 based on the adjustment, regardless of pressure changes downstream on port 3. Excessive flow is directed to port 2.

Symbol

Technical Data

<table>
<thead>
<tr>
<th>Valve size / Cartridge cavity</th>
<th>M27x2 / K3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max. inlet flow (port 1) l/min (GPM)</td>
<td>4 - 60</td>
</tr>
<tr>
<td>Nominal flow rates</td>
<td>4 - 40</td>
</tr>
<tr>
<td>Adjustment range l/min (GPM)</td>
<td>1.06 - 10.57</td>
</tr>
<tr>
<td>Max. operating pressure bar (PSI)</td>
<td>350 5080</td>
</tr>
<tr>
<td>Fluid temperature range (NBR) °C (°F)</td>
<td>-20 ... +90 (-4 ... +194)</td>
</tr>
<tr>
<td>Mass kg (lbs)</td>
<td>0.16 (0.35)</td>
</tr>
</tbody>
</table>

Characteristics measured at v = 40 mm²/s (195 SUS)

Regulated flow related to input pressure

Measured at constant inlet flow Q<sub>1</sub> = 50 l/min (13.21 GPM)

By-pass pressure higher than regulated pressure p₁ > p₂

Regulated pressure higher than by-pass pressure p₂ > p₃

![Graph showing regulated flow related to input pressure]
### Ordering Code

**SF32A-K3/I**  
3-Way flow regulator, pressure compensated M27x2

#### Adjustable flow range
- 4 - 40 l/min (1.06 - 10.57 GPM)  
- 6 - 60 l/min (1.59 - 15.85 GPM)

#### Surface treatment
- zinc-coated (ZnCr-3), ISO 9227 (240 h)

#### Seals
- NBR
- FPM (Viton)

#### Adjustment option
- Allen key (hex. 4), without protective cap

**Dimensions** in millimeters (inches)

- 70 (2.76)
- 49.5 (1.95) MAX

Seals  
NBR  
FPM (Viton)  
Surface treatment  
zinc-coated (ZnCr-3), ISO 9227 (240 h)  
No designation  
V  
Adjustment option  
Allen key (hex. 4), without protective cap