

### 3-Way Flow Regulator, Pressure Compensated

## SF32A-B3/H

7/8-14 UNF •  $Q_{max}$  50 l/min (13 GPM) •  $p_{max}$  350 bar (5100 PSI)

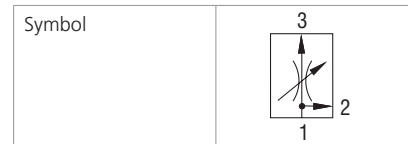
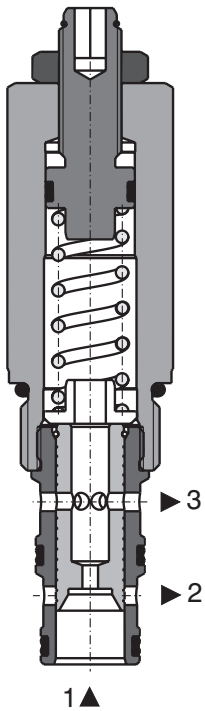
#### Technical Features

- › 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
- › Adjustable by allen key or hand screw, optionally sealable (lockwire holes)
- › 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.



#### Technical Data

| Valve size / Cartridge cavity |             | 7/8-14 UNF-2A / B3          |                       |                        |                        |
|-------------------------------|-------------|-----------------------------|-----------------------|------------------------|------------------------|
| Max. inlet flow (port 1)      | l/min (GPM) | 50 (13.2)                   |                       |                        |                        |
| Nominal flow rates            |             | 10                          | 14                    | 22                     | 30                     |
| Adjustment range              | l/min (GPM) | 5 - 10<br>(1.2 - 2.6)       | 6 - 14<br>(1.6 - 3.7) | 11 - 22<br>(2.9 - 5.8) | 17 - 30<br>(4.5 - 7.9) |
| Max. operating pressure       | bar (PSI)   | 350 (5080)                  |                       |                        |                        |
| Fluid temperature range (NBR) | °C (°F)     | -30... + 100 (-22 ... +212) |                       |                        |                        |
| Fluid temperature range (FPM) | °C (°F)     | -20 ... +120 (-4 ... +248)  |                       |                        |                        |
| Mass                          | kg (lbs)    | 0.24 (0.52)                 |                       |                        |                        |

|                             |                  | Datasheet      | Type                          |
|-----------------------------|------------------|----------------|-------------------------------|
| General Information         |                  | GI_0060        | Products operating conditions |
| Valve bodies                | In-line mounted  | SB_0018        | SB-B3*                        |
|                             | Sandwich mounted | SB-04(06)_0028 | SB-*B3*                       |
| Cavity details / Form tools |                  | SMT_0019       | SMT-B3*                       |
| Spare parts                 |                  | SP_8010        |                               |

#### Characteristics measured at $v = 32 \text{ mm}^2/\text{s}$ (156 SUS)

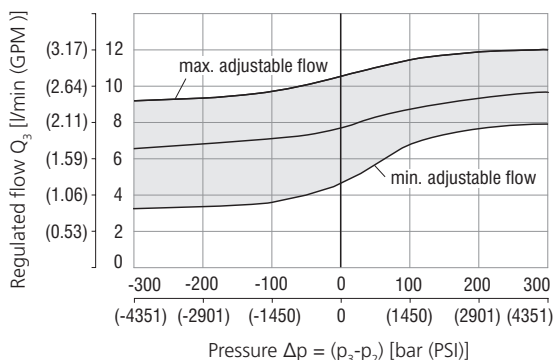
##### Regulated flow related to input pressure

Measured at constant inlet flow  $Q_1 = 50 \text{ l/min}$  (13.21 GPM)

Flow rate 10

By-pass pressure higher than regulated pressure  $p_2 > p_3$

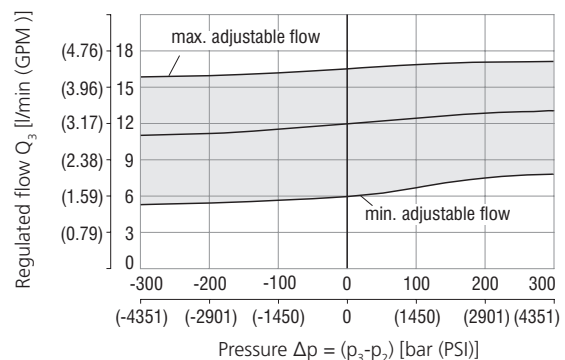
Regulated pressure higher than by-pass pressure  $p_3 > p_2$



Flow rate 14

By-pass pressure higher than regulated pressure  $p_2 > p_3$

Regulated pressure higher than by-pass pressure  $p_3 > p_2$



**Characteristics** measured at  $v = 32 \text{ mm}^2/\text{s}$  (156 SUS)

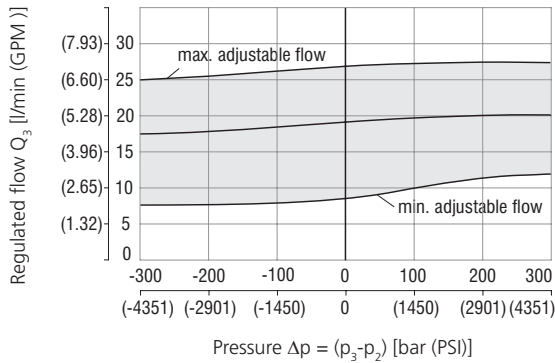
**Regulated flow related to input pressure**

Measured at constant inlet flow  $Q_1 = 50 \text{ l/min}$  (13.21 GPM)

Flow rate 22

By-pass pressure higher than regulated pressure  $p_2 > p_3$

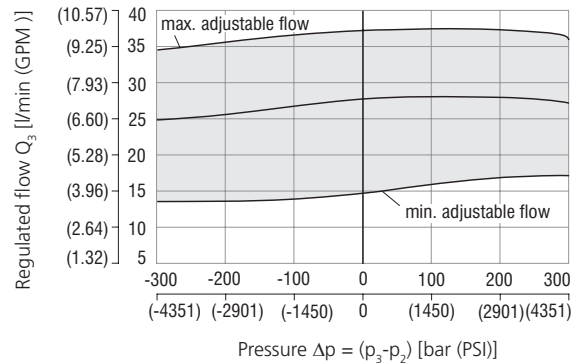
Regulated pressure higher than by-pass pressure  $p_3 > p_2$



Flow rate 30

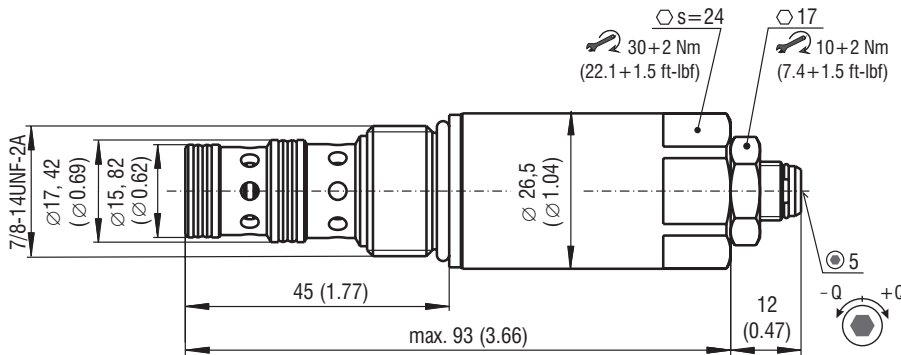
By-pass pressure higher than regulated pressure  $p_2 > p_3$

Regulated pressure higher than by-pass pressure  $p_3 > p_2$

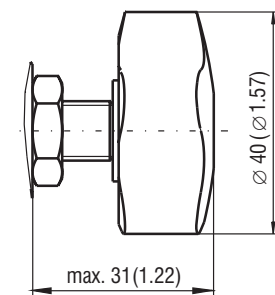


**Dimensions** in millimeters (inches)

**Model S**



**Model RP**



**Ordering Code**

SF32A-B3 / H

3-Way flow regulator, pressure compensated

7/8-14 UNF

**Model**

High performance

**Flow rate**

5 - 10 l/min (1.3 - 2.6 GPM)

6 - 14 l/min (1.6 - 3.7 GPM)

11 - 22 l/min (2.9 - 5.8 GPM)

17 - 30 l/min (4.5 - 7.9 GPM)

10

14

22

30

S  
RP

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

No designation  
V

**Seals**  
NBR  
FPM (Viton)

**Adjustment option**  
allen key (hex. 5), without protective cap  
hand screw, plastic