

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)

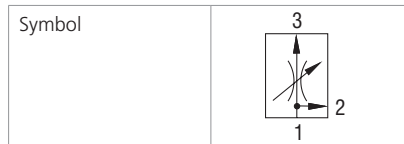
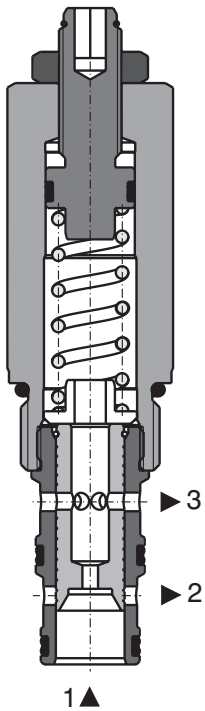
Technical Features

- › 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 responded 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 (1.2 - 2.6)	6 - 14 (1.6 - 3.7)	11 - 22 (2.9 - 5.8)	17 - 30 (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)

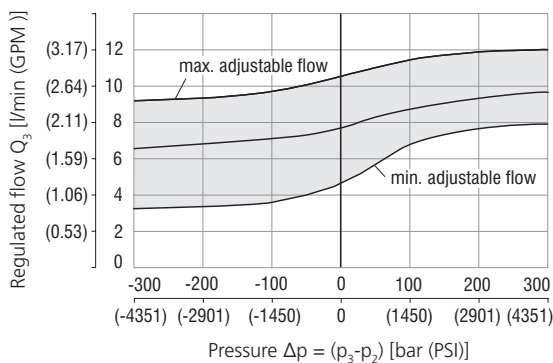
Regulated flow related to input pressure

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

Flow rate 10

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

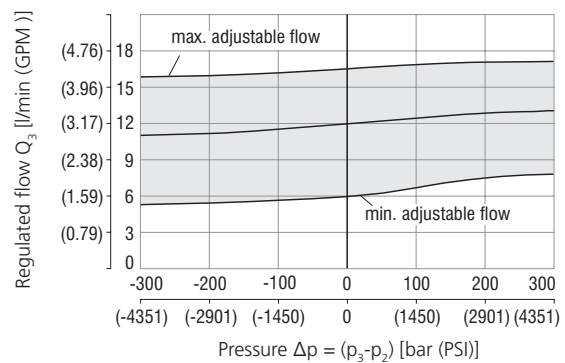
Regulated pressure higher than by-pass pressure $p_3 > p_2$



Flow rate 14

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

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



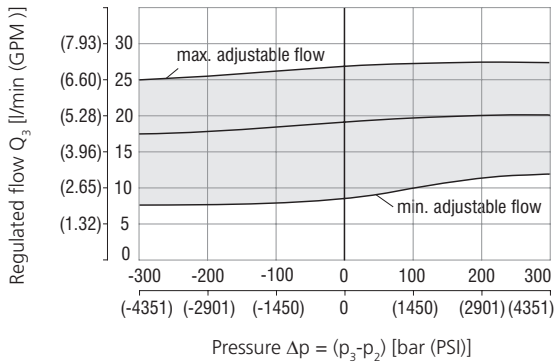
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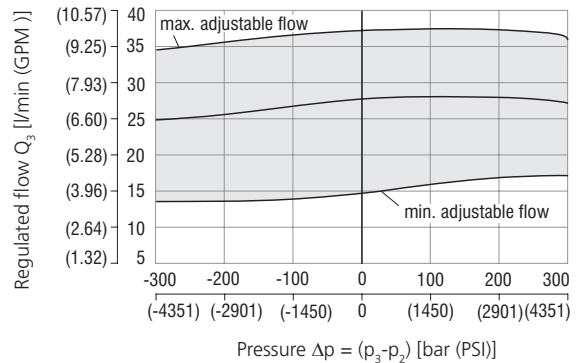
Flow rate 22

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

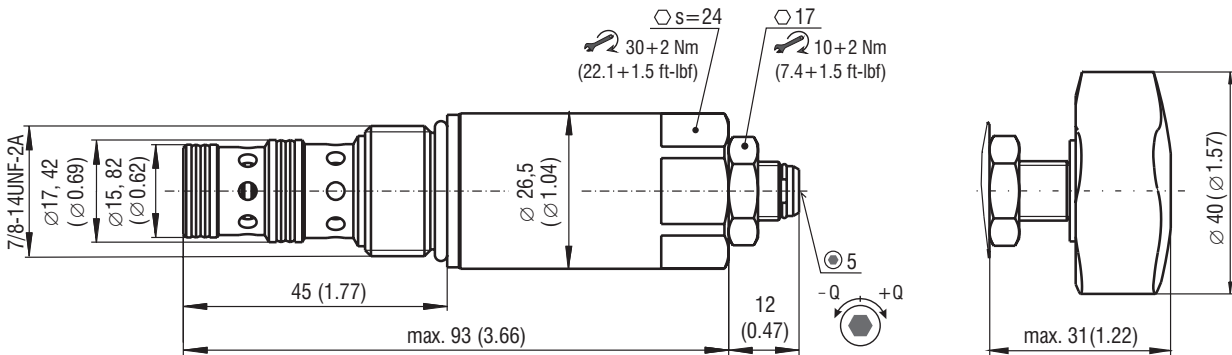
By-pass pressure higher than regulated pressure $p_2 > p_3$ | Regulated pressure higher than by-pass pressure $p_3 > p_2$



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)	10
6 - 14 l/min (1.6 - 3.7 GPM)	14
11 - 22 l/min (2.9 - 5.8 GPM)	22
17 - 30 l/min (4.5 - 7.9 GPM)	30

Surface treatment

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

No designation

Seals
V NBR
 FPM (Viton)

Adjustment option

S allen key (hex. 5), without protective cap
RP hand screw, plastic