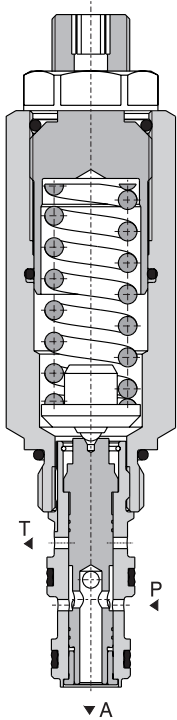


Model S



Technical Features

- › Excellent stability throughout flow range with rapid response to dynamic pressure changes
- › Low hysteresis, accurate pressure control and low pressure drop
- › Three-way valve with relief function for protection of actuator against pressure overloading
- › Wide range of input pressure up to 350 bar
- › Precise produced and hardened function parts
- › Reduced pressure adjustable by allen key or hand screw
- › In the standard version, the valve is zinc-coated for 240 h protection acc. to ISO 9227. Enhanced surface protection for mobile sector available for the steel parts (ISO 9227, 520 h salt spray)

Functional Description

Screw-in pressure reducing valve, direct acting, is designed for maintaining the constant pressure in the circuit of actuator, it means for adjusting the force on piston rod or torque on output shaft of hydraulic motor. The spool is a control part of the valve. The output pressure acts on the frontal surface of spool and is permanently compared with the reducing pressure adjusted by screw on the opposite side of the valve. The output pressure is regulated by throttling of input flow from the pump on the control edge of spool. The hydraulic damping of spool moving improves the stability of valve function. If the actuator is overloaded, the spool closes the input of pressure fluid from the pump (P) and unloads the actuator circuit by connecting to the tank (A → T). The actuator is thus protected against pressure overloading.



Technical Data

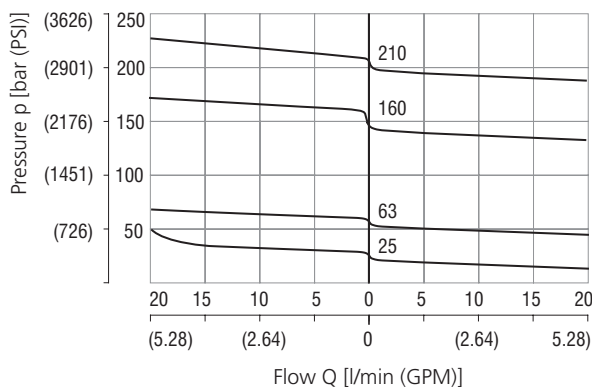
| Valve size / Cartridge cavity | | 3/4-16 UNF-2A / A3 (C-8-3) | | | |
|---|-------------|----------------------------|-----------|------------|-------------|
| Max. flow | l/min (GPM) | 20 (5.3) | | | |
| Pressure range | | 2 | 6 | 16 | 21 |
| Max. operating pressure (port P) | bar (PSI) | 350 (5080) | | | |
| Reduced pressure range (at Q = 5 l/min) | bar | 10-25 | 20-63 | 50-160 | 70-210 |
| | (PSI) | (150-360) | (290-910) | (730-2320) | (1020-3050) |
| Max. back pressure (port T) | bar (PSI) | 200 (3630) | | | |
| Fluid temperature range (NBR) | °C (°F) | -30 ... +100 (-22 ... 212) | | | |
| Fluid temperature range (FPM) | °C (°F) | -20 ... +120 (-4 ... 248) | | | |
| Weight | kg (lbs) | 0.13 (0.29) | | | |

| | | Datasheet | Type |
|-----------------------------|------------------|----------------|-----------------------------------|
| General information | | GI_0060 | Products and operating conditions |
| Valve bodies | In-line mounted | SB_0018 | SB-A3* |
| | Sandwich mounted | SB-04(06)_0028 | SB-*A3* |
| Cavity details / Form tools | | SMT_0019 | SMT-A3* |
| Spare parts | | SP_8010 | |

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

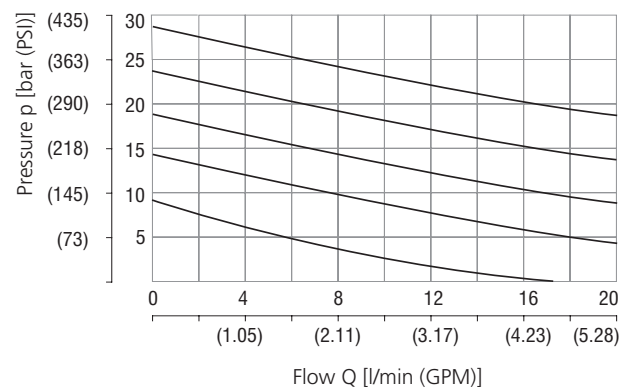
Reducing - relieving pressure related to flow rate

Relieving function A→T / Reducing function P→A



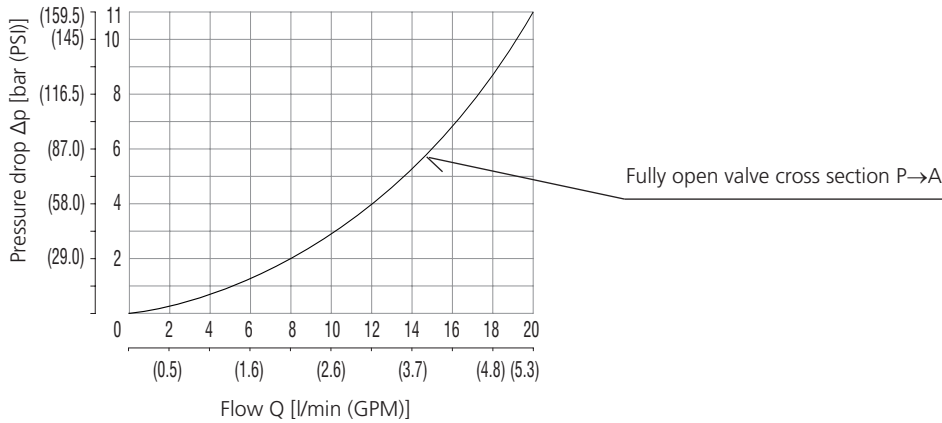
Minimum reducing pressure related to flow rate

Pressure range 6



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

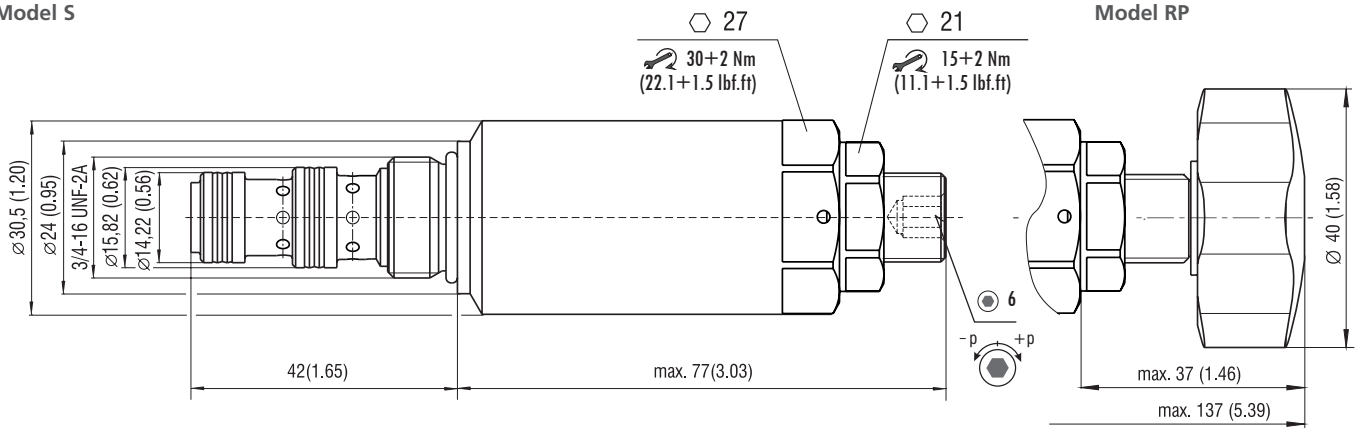
Pressure drop related to flow rate



Dimensions in millimeters (inches)

Model S

Model RP



Ordering Code

SP2A - A3 / H -

Pressure reducing - relieving valve, spool type, direct acting

Valve cavity
3/4-16 UNF (C-8-3)

Model
High performance

Reduced pressure ranges (at Q = 5 l/min)

| | |
|--------------------------------|----|
| 10 - 25 bar (150 - 360 PSI) | 2 |
| 20 - 63 bar (290 - 910 PSI) | 6 |
| 50 - 160 bar (730 - 2320 PSI) | 16 |
| 70 - 210 bar (1020 - 3050 PSI) | 21 |

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)

S
RP

Adjustment option
allen key (hex. 6), without protective cap
hand screw, plastic