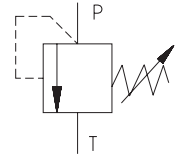


- Screw-in cartridge design
- 4 pressure ranges
- Pressure setting by hexagon socket

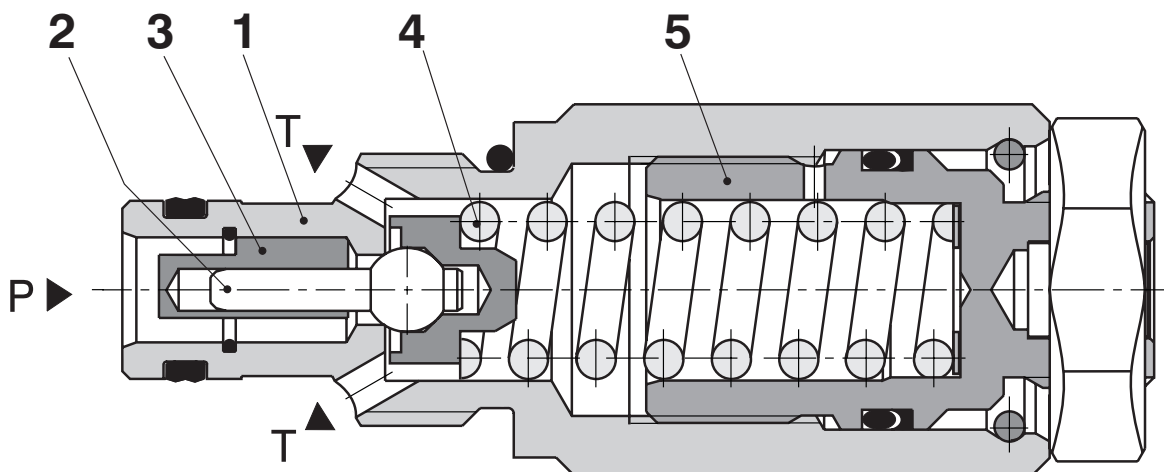


Functional Description

The directly operated pressure relief valve SR1A-A2 consists basically of the valve housing (1), ball with damping spool (2), damping bush (3), spring (4) and setting screw (5). The pressure setting is accomplished by setting screw (5) with hexagon socket. The spring pushes the ball into the valve seat created directly in the valve housing and holds the valve closed. When the pressure in port P exceeds the pressure magnitude set

by the setting screw, the ball is lifted up from the seat and the fluid flows out to port T. To optimize the valve performance, the whole pressure range is divided into 4 pressure ranges. Choosing the next higher pressure range is always recommended.

In basic version the valve housing and the setting screw are zinc coated.



Ordering Code

SR1A-A2 / S

Seals

NBR

FPM (Viton)

without designation

V

Pressure range

up to 100 bar (1450 PSI)
 up to 160 bar (2320 PSI)
 up to 250 bar (3626 PSI)
 up to 350 bar (5076 PSI)

10
16
25
35

Directly Operated Pressure Relief Valve

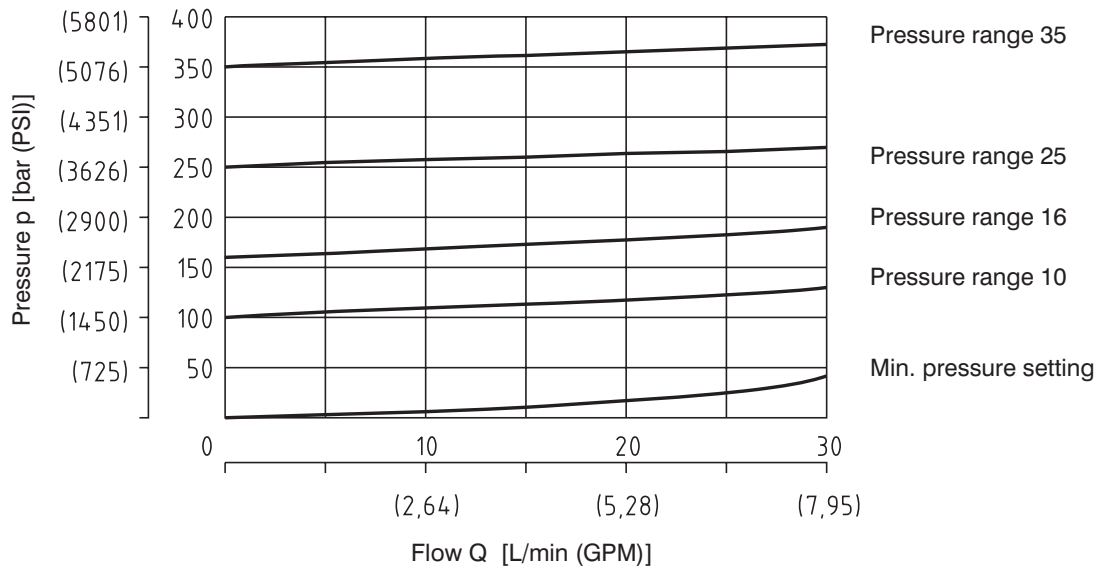
Standard

Technical Data

Cartridge thread		3/4 - 16 UNF - 2B
Max. flow rate	L/min (GPM)	30 (7.9)
Max. service pressure port P)	bar (PSI)	350 (5076)
Max. output pressure (port T)	bar (PSI)	160 (2320)
Working pressure related to flow	bar (PSI)	see p-Q characteristics
Hydraulic fluid		Hydraulic oils of power classes (HL, HLP) to DIN 51524
Fluid temperature range for standard (NBR)	°C (°F)	-30 ... +100 (-22 ... 212)
Fluid temperature range for Viton FPM)	°C (°F)	-20 ... +120 (-4 ... 248)
Viscosity range	mm ² /s (SUS)	10 ... 500 (49 ... 2450)
Max. degree of fluid contamination		Class 21/18/15 according to ISO 4406 (1999).
Weight	kg (lbs)	0.13 (2.866)
Maximum valve tightening torque	Nm (lbf.ft)	30+2 (22.13+1.48 lbf.ft)
Mounting position		optional

p-Q Characteristics

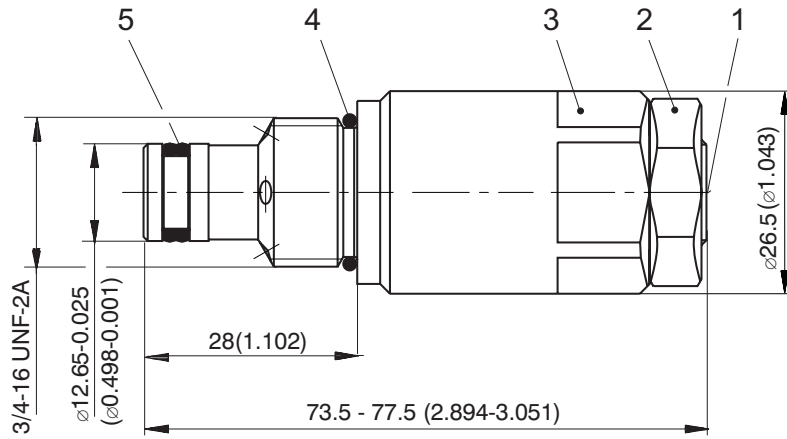
Measured at $v = 32 \text{ mm}^2/\text{s}$ (156 SUS)



Valve Dimensions

Dimensions in millimetres (inches)

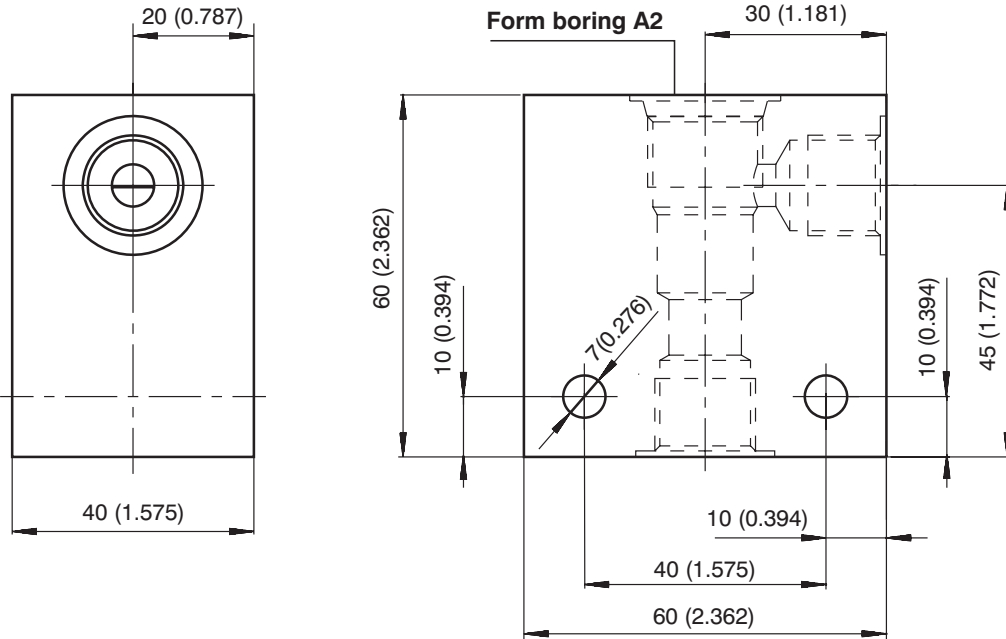
Screw-in Cartridge Design



- 1** Adjustment element (screw with internal HEX 6)
Clockwise rotation = pressure increase
Anticlockwise rotation = pressure decrease
- 2** Locknut HEX 21
- tightening torque 15 Nm (11 lbf.ft)
- 3** Wrench flats HEX 24
- tightening torque 30 Nm (22 bf.ft)
- 4** O-ring 17 x 1.8 (supplied with valve)
- 5** Combined sealing:
Dualseal DRYZ000004Z20
10.3 x 12.7 x 3.1 (supplied with valve)

Valve Body

Dimensions in millimetres (inches)



Body material	Connecting size	Type code	Operating pressures
Steel	G3/8	SB-A2-0103ST	420 bar (6092 PSI)
Steel	SAE 6	SB-A2-0102ST	420 bar (6092 PSI)
Aluminium	G3/8	SB-A2-0103AL	250 bar (3626 PSI)
Aluminium	SAE 6	SB-A2-0102AL	250 bar (3626 PSI)

Note:

- For detailed valve body ordering code refer to data sheet HA 0018

