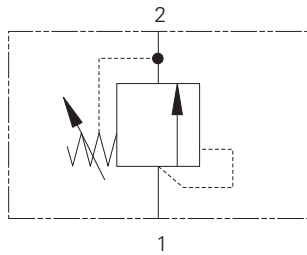


1DR30 - Relief Valve

Poppet, Direct Acting

30 L/min (8 USgpm) • 400 bar (5800 psi)



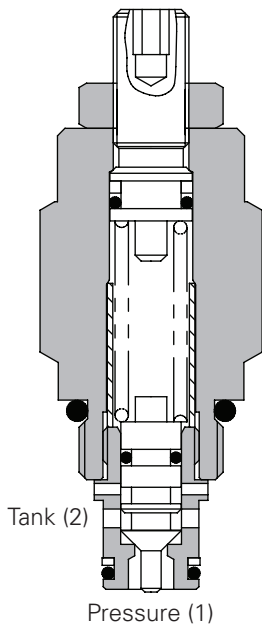
Operation

Pressure on the nose of the cartridge acts over the seat area moving the poppet against the spring, allowing relief flow to tank.

Features

Fast acting, low pressure rise due to flow for a direct acting valve.

Sectional View



Performance Data

Ratings and Specifications

Performance data is typical with fluid at 32 cSt (150 SUS) and 40° C (120° F)

Typical application pressure	400 bar (5800 psi)
Rated flow	30 L/min (8 USgpm)
Cartridge Material	Working parts hardened and ground steel. External surfaces zinc plated.
Cavity	C-8-2 (see Section M)
Standard housing materials	Aluminum (up to 210 bar) or Steel (add 377 suffix for steel option)
Torque Cartridge into Cavity	45 Nm (33 lbs ft)
Temperature range	-30° to 90°C (-22° to 194°F)
Fluids	All general purpose hydraulic fluids such as: MIL-H-5606, SAE 10, SAE 20, etc.
Filtration	Cleanliness Code BS5540-4 18/13 (25 micron nominal)
Weight cartridge only	0,17 kg (0.37)
Internal leakage	0.3 ml/min nominal (5 dpm)
Nominal Viscosity Range	5 to 500 cSt
Seal kits	SK243 Buna-N SK243V Viton*

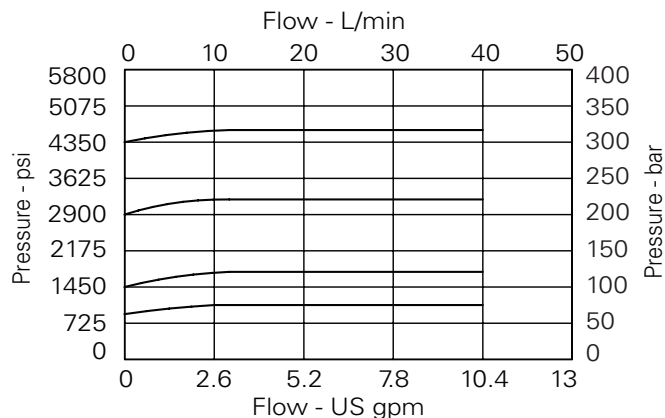
Viton is a registered trademark of E.I. DuPont

Description

This is a direct acting, poppet style screw in cartridge relief valve, it is an economical solution for small flow systems where a fast response is required.

Pressure Override Curves

Cartridge only

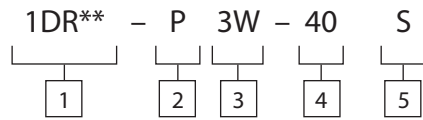


1DR30 - Relief Valve

Poppet, Direct Acting

30 L/min (8 USgpm) • 400 bar (5800 psi)

Model Code



1 Function
1DR30 - Cartridge only
1DR35 - Cartridge and body

2 Adjustment
P - Leakproof screw adjustment
R - Handknob adjustment
G - Tamperproof cap (see page E-7 for dimensions)

3 Port Size - Bodied Valves Only

Code	Port Size	Housing Number	
		Aluminium	Steel
0	Cartridge only		
2W	1/4" BSP	A1485	
3W	3/8" BSP	A1043	A14175
6T	3/8" SAE	A15676	A14843

See section J for housing details.

5 Seal Material

S - Nitrile (for use with most industrial hydraulic oils)
SV - Viton® (for high temperature and most special fluid applications)

4 Pressure Range at 4.8 l/min
Note: Code based on pressure in bar.

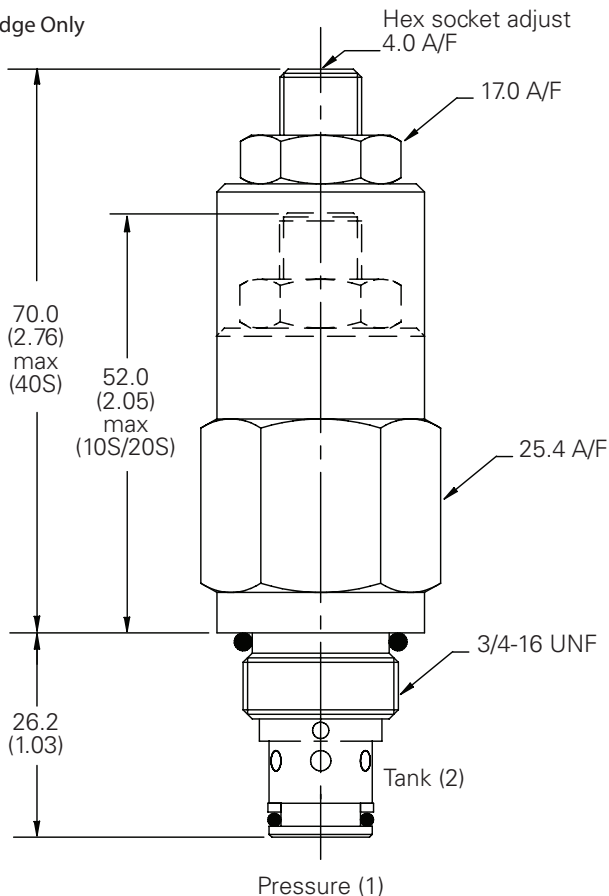
10 - 7-100 bar (100-1450 psi)
- std setting at 70 bar
20 - 35-210 bar (500-3000 psi)
- std setting at 100 bar
40 - 50-400 bar (725-5800 psi)
- std setting at 280 bar

Dimensions

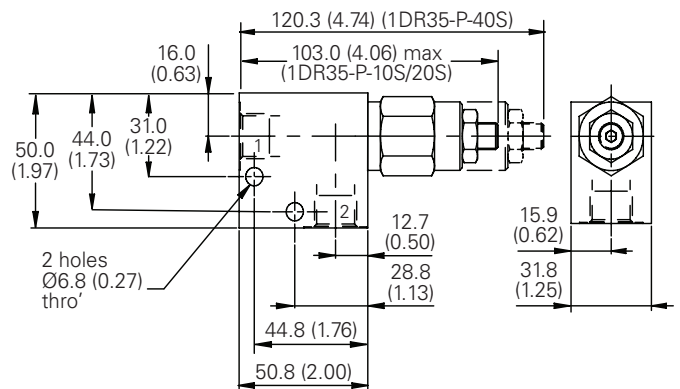
mm (inch)

Torque cartridge in housing
A - 47-54 Nm (35-40 ft. lbs)
S - 68-75 Nm (50-55 ft. lbs)

Cartridge Only



Installation Drawing



WARNING

Aluminum housings can be used for pressures up to 210 bar (3000 psi). Steel housings must be used for operating pressures above 210 bar (3000 psi).