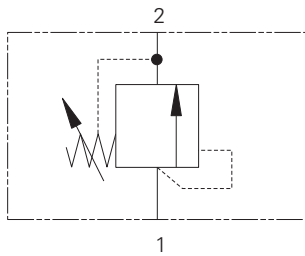
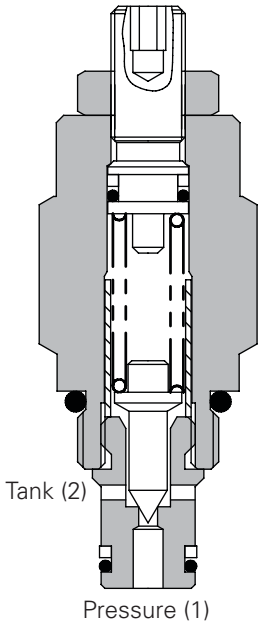


# 1DR2 - Relief valve

Poppet, direct acting  
1,2 L/min (0.3 USgpm) • 400 bar (5800 psi)



Sectional view



## 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, good reseal, ideal for remote operation of larger valves.

## Performance data

### Ratings and specifications

Performance data is typical with fluid at 32 cSt (150 SUS)

Typical application pressure	400 bar (5800 psi)
Rated flow	1,2 L/min (0.3 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	0,14 (0.30)
Internal leakage	0.3 ml/min nominal (5 dpm)
Nominal Viscosity Range	5 to 500 cSt
Seal kits	SK187-02 Buna-N SK187-02V Viton®

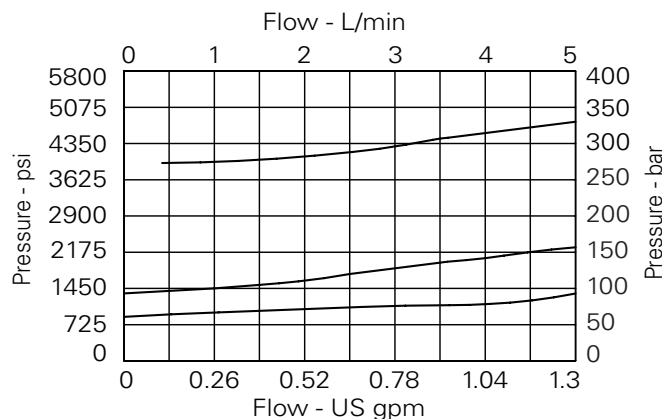
Viton is a registered trademark of E.I. DuPont

## Description

This is a direct acting, poppet style screw in cartridge relief valve which is ideally suited for use as a pilot valve or a thermal relief.

## Pressure override curves

Cartridge only

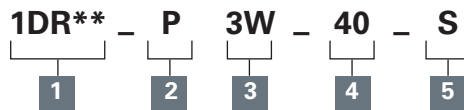


Where measurements are critical request certified drawings. We reserve the right to change specifications without notice.

# 1DR2 - Relief valve

Poppet, direct acting  
1,2 L/min (0.3 USgpm) • 400 bar (5800 psi)

## Model code



### 1 Function

- 1DR2 - Cartridge only
- 1DR22 - 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.

### 4 Pressure range at 0.5 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

### 5 Seal material

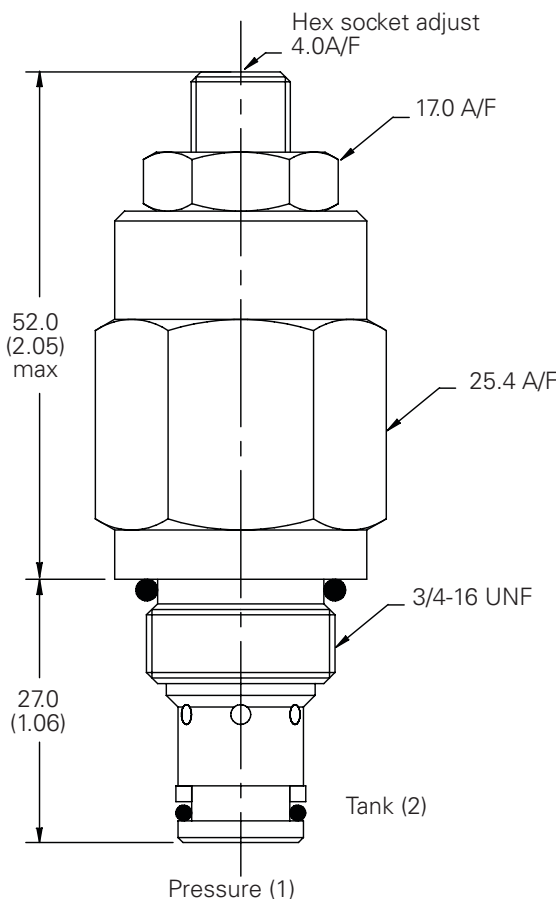
- S - Nitrile (for use with most industrial hydraulic oils)
- SV - Viton® (for high temperature and most special fluid applications)

## Dimensions

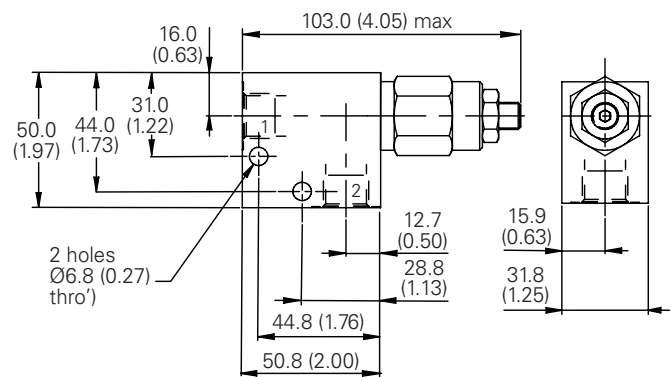
mm (inch)

### Cartridge only

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



## 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).

Where measurements are critical request certified drawings. We reserve the right to change specifications without notice.