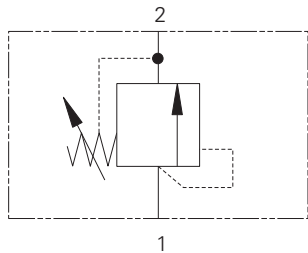


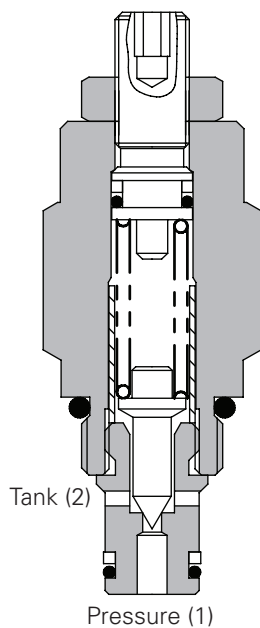
# 1DR2 - Relief Valve

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®

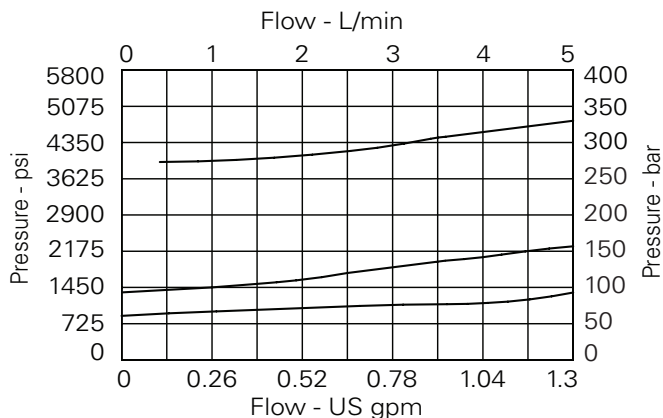
Viton is a registered trademark of E.I. DuPont

## 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



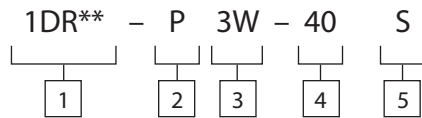
# 1DR2 - Relief Valve

Poppet, Direct Acting

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**1DR2P20S**

Model Code



**1** Function  
1DR21DR22  
**PRG**

**2** Adjustment

**3** Port Size - Bodied Valves Only

Code	Port Size	Housing Number	
		Aluminium	Steel
<b>0</b>		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<sup>®</sup> (for high temperature and most special fluid applications)

**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

## Dimensions

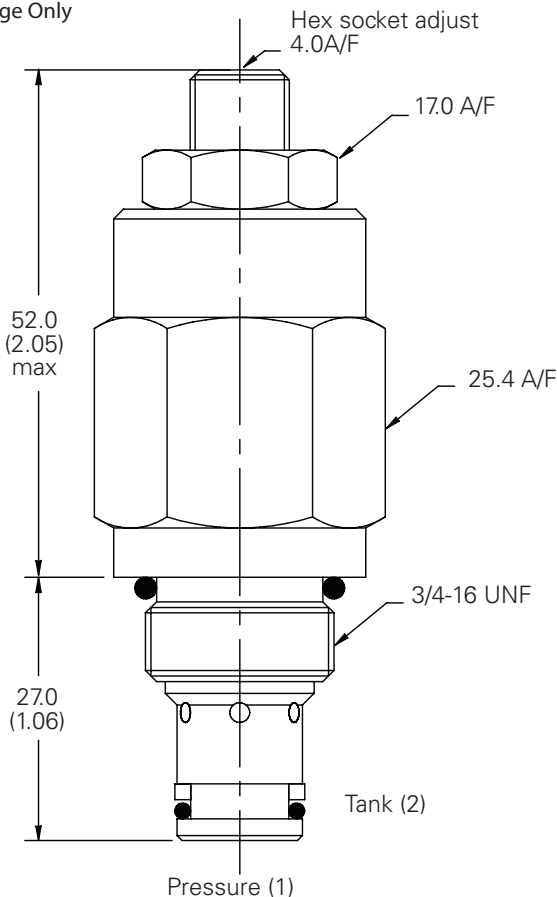
mm (inch)

Torque cartridge in housing

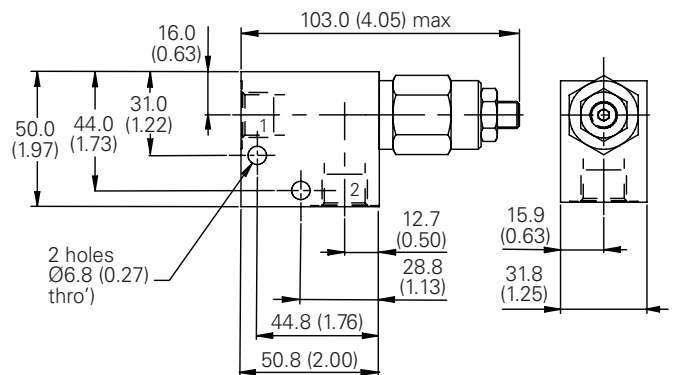
A - 47-54 Nm (35-40 ft. lbs)

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).