



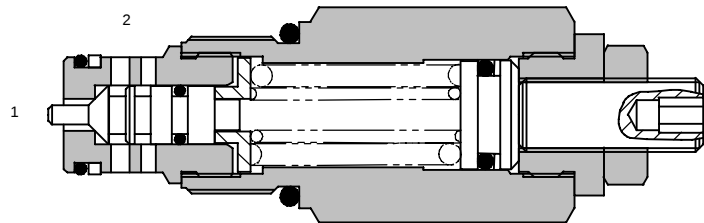
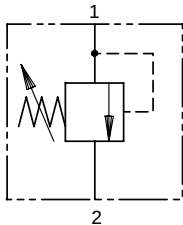
1DR SERIES RELIEF VALVE

DIRECT ACTING

1DR50

POPPET TYPE

2



APPLICATION

The 1DR50 is ideally suited for use as an economical solution for small flow systems where a fast response is required.

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.

SPECIFICATIONS

Figures based on: Oil Temp = 40°C Viscosity = 40 cSt

Rated Flow	50 litres/min (12.5 US GPM)
Max Setting	360 bar (5220 psi)
Cartridge Material	Working parts hardened and ground steel. External surfaces zinc plated.
Body Material	Standard aluminium (up to 210 bar*) Add suffix '377' for steel option
Mounting Position	Unrestricted
Cavity Number	A12370 (See Section 17)
Torque Cartridge into Cavity	45 Nm (33 lbs ft)
Weight	1DR50 0.14 kg (0.30 lbs) 1DR55 0.28 kg (0.60 lbs)
Seal Kit Number	SK648 (Nitrile) SK648V (Viton)
Recommended Filtration Level	BS5540/4 Class 18/13 (25 micron nominal)
Operating Temp	-20°C to +90°C
Leakage	0.3 millilitres/min nominal (5 dpm)
Nominal Viscosity Range	5 to 500 cSt

*For applications above 210 bar please consult our technical department or use the steel body option.

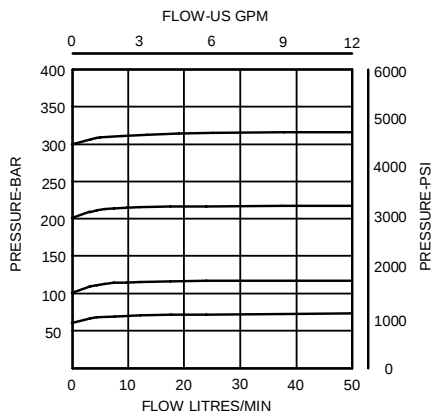
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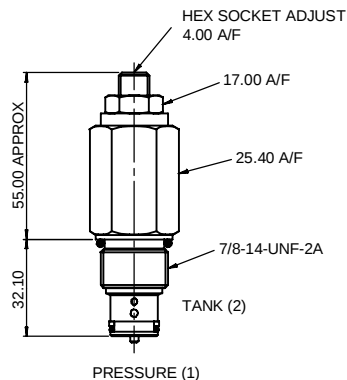
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PRESSURE DROP



CARTRIDGE ONLY



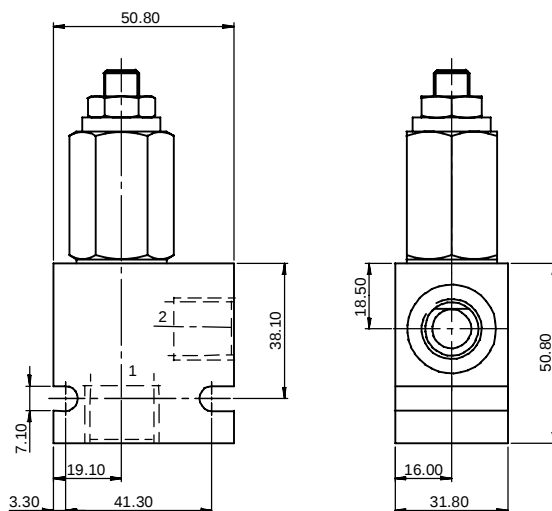
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COMPLETE VALVE 3/8" 1/2" PORTS

BASIC CODE: 1DR55

Body ONLY part numbers

BSP, aluminium	SAE, aluminium
3/8" B19053	3/8" B19401
1/2" B19356	1/2" B19402



Where measurements are critical request certified drawings

ORDERING CODE EXAMPLE

1DR P 3W 35 S**

Basic Code

1DR50 = Cartridge Only
1DR55 = Cartridge and Body

Adjustment Means

P = Leakproof Screw Adjustment
R = Handknob Adjustment
G = Tamperproof Cap
(See page 2-102 for dimensions)

Port Sizes - Bodied Valves Only

3W = 3/8" BSP **6T** = 3/8" SAE
4W = 1/2" BSP **8T** = 1/2" SAE

Seals

S = Nitrile (For use with most industrial hydraulic oils)
SV = Viton (For high temperature and most special fluid applications)

Pressure Range @ 4.8 or 0.5 l/min

7 = 10- 90 bar. Std setting 35 bar
20 = 50-250 bar. Std setting 100 bar
35 = 50-360 bar. Std setting 280 bar

We reserve the right to change specifications without notice