



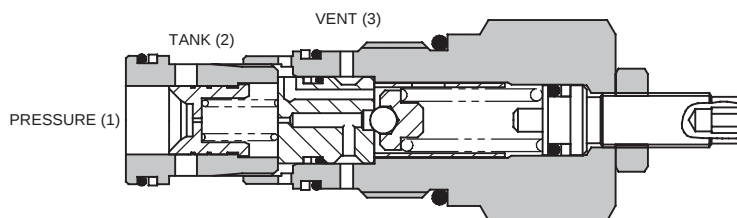
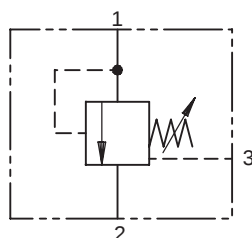
1VR SERIES VENTABLE RELIEF VALVE

PILOT OPERATED

1VR100

SLIDING SPOOL TYPE

2



APPLICATION

To limit pressure in a system. Good for continuous duty and accurate pressure control with constant or varying flows. The vent feature can be used with remote pilot section for a two-pressure system or to allow manual or remote 'unloading' of the pump.

OPERATION

When inlet pressure exceeds the setting of the valve, the pilot section opens. The pilot flow causes a pressure imbalance across the main section spool causing it to open, allowing relief flow to tank. When 'vented', pilot flow is referenced directly to tank, bypassing the pilot section. This flow through the vent causes a pressure imbalance, opening the main section and dumping the pump at minimum pressure drop.

FEATURES

High accuracy of pilot operated design. Hardened working parts give long, reliable, trouble-free life. Ventible for versatility of application. Cartridge construction for installation into your own manifold.

SPECIFICATIONS

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

Rated Flow	100 litres/min (26 US GPM)
Max Setting	350 bar (5000 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	A3146 (See Section 17)
Torque Cartridge into Cavity	75 Nm (55 lbs ft)
Weight	1VR100 0.46 kg (1.0 lbs) 1VR150 1.13 kg (2.5 lbs)
Seal Kit Number	SK275 (Nitrile) SK275V (Viton)
Recommended Filtration Level	BS5540/4 Class 18/13 (25 micron nominal)
Operating Temp	-20°C to +90°C
Leakage	35 millilitres/min @ 280 bar
Nominal Viscosity Range	5 to 500 cSt

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

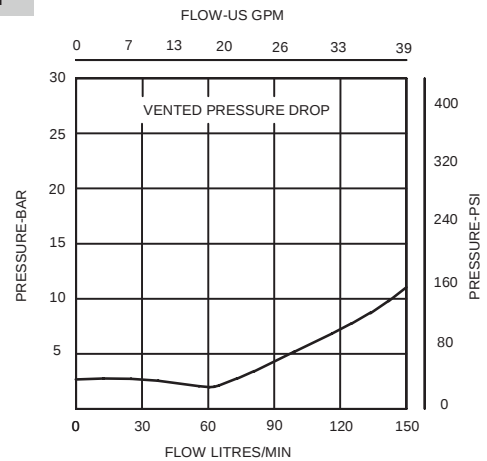
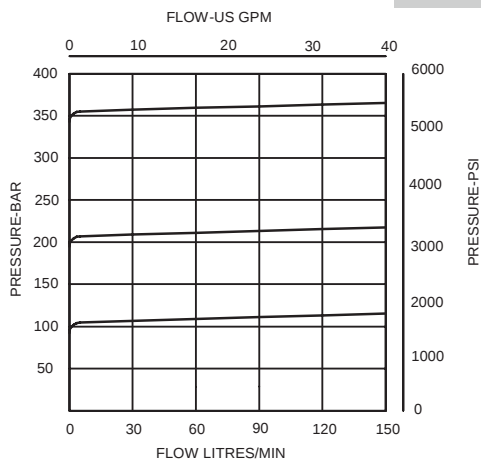
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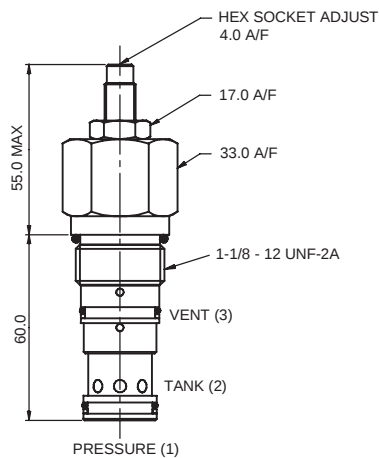
PRESSURE DROP



2

CARTRIDGE ONLY

BASIC CODE: 1VR100



COMPLETE VALVE

3/4" PORTS

BASIC CODE: 1VR150

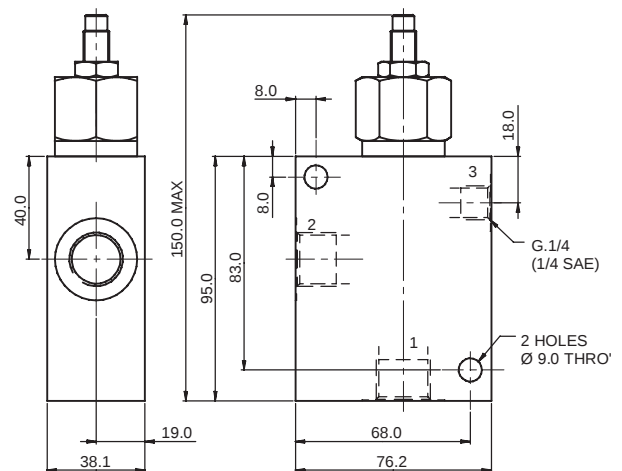
Body ONLY part numbers

BSP, aluminium
3/4" B4377

SAE, aluminium
3/4" B10785

BSP, steel
3/4" B4378

SAE, steel
3/4" B11554



Where measurements are critical request certified drawings

ORDERING CODE EXAMPLE

1VR* P 4W 35 S**

Basic Code

1VR100 = Cartridge Only

1VR150 = Cartridge and Body

Adjustment Means

P = Leakproof Screw Adjustment

G = Tamperproof Cap

(See page 2-102 for dimensions)

Port Sizes - Bodied Valves Only

6W = 3/4" BSP **12T** = 3/4" SAE

Seals

S = Nitrile (For use with most industrial hydraulic oils)

SV = Viton (For high temperature and most special fluid applications)

Pressure Range @ 14 l/min

20 = 10-210 bar. Std setting 100 bar

35 = 30-350 bar. Std setting 210 bar

Std setting made at 14 litres/min