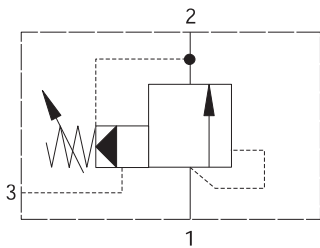


1VR100 - Relief valve

Spool, ventable, pilot operated
100 L/min (26 USgpm) • 350 bar (5000 psi)



Operation

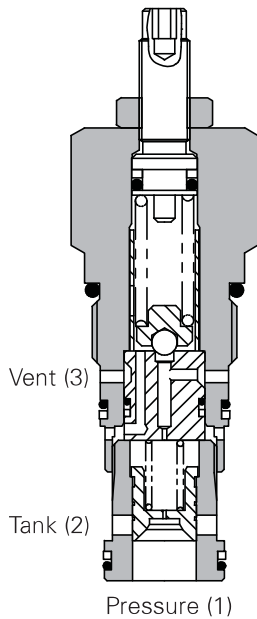
When inlet pressure exceeds the setting of the valve, the pilot section opens. The pilot flow causes a pressure imbalance across the main section spool causing it to open, allowing relief flow to tank.

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. Ventable for versatility of application. Cartridge construction for installation into your own manifold.

Sectional view



Performance data

Ratings and specifications

Figures based on: Oil Temp = 40°C Viscosity = 32 cSt (150 SUS)

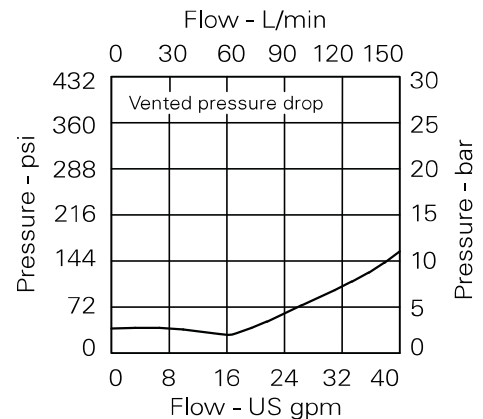
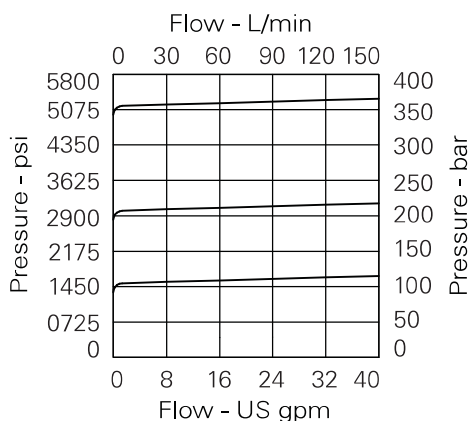
Rated flow	100 L/min (26 USgpm)
Max setting	350 bar (5000 psi)
Cartridge material	Working parts hardened and ground steel. External surfaces zinc plated.
Body material	Standard aluminium (up to 210 bar). Add suffix "377" for steel option.
Mounting position	Unrestricted
Cavity	A3146 (See Section M)
Torque 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	SK275 (Nitrile) SK275V (Viton®)
Recommended filtration level	BS5540/4 Class 18/13 (25 micron nominal)
Operating temp	-20° to +90°C (-22° to +194°F)
Leakage	35 milliliters/min @ 280 bar
Nominal viscosity range	5 to 500 cSt

Viton® is a registered trademark of E.I. DuPont®

Description

This is a ventable, internally pilot operated relief valve designed 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.

Pressure drop curves

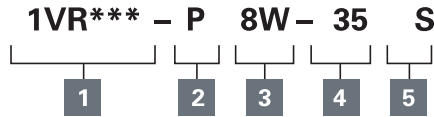


Where measurements are critical request certified drawings. We reserve the right to change specifications without notice.

1VR100 - Relief valve

Spool, ventable, pilot operated
100 L/min (26 USgpm) • 350 bar (5000 psi)

Model code



1 Function

1VR100 - Cartridge Only
1VR150 - Cartridge and Body

2 Adjustment means

P - Leakproof Screw Adjustment
G - Tamperproof Cap
(See page E-7 for dimensions)

3 Port size

Code	Port size	Housing number - body only	
		Aluminium	Steel
6W	3/4" BSP	B4377	B4378
12T	3/4" SAE	B10785	B11554

4 Pressure range @ 14 l/min

Note: Code based on pressure in bar.
20 - 10-210 bar.
Std setting 100 bar
35 - 30-350 bar.
Std setting 210 bar
Std setting made at 14 L/min

5 Seals

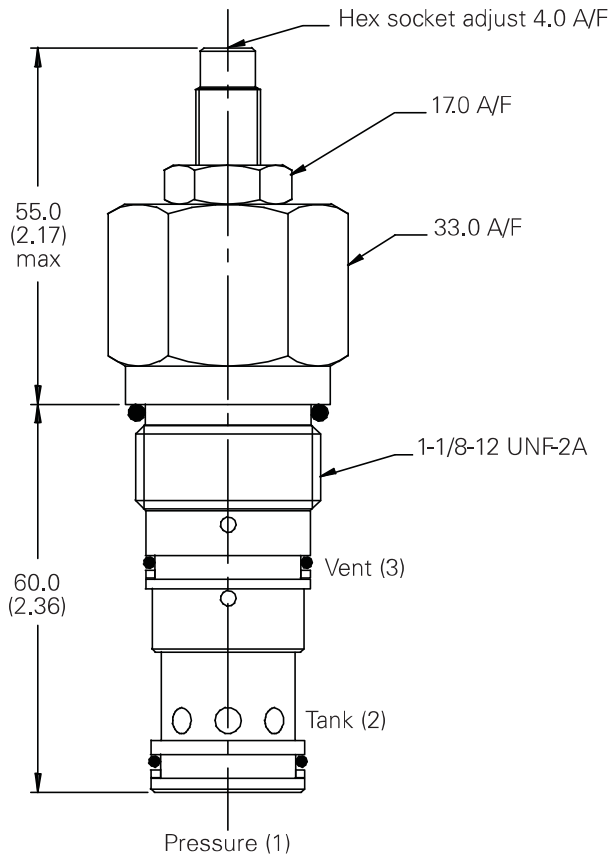
S - Nitrile (For use with most industrial hydraulic oils)
SV - Viton (For high temperature and most special fluid applications)

Dimensions

mm (inch)

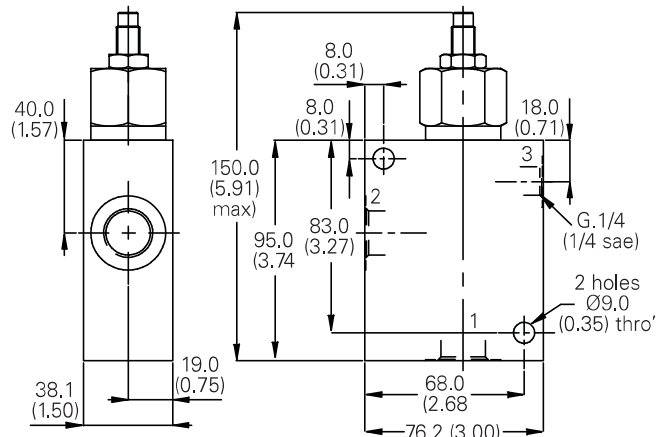
Cartridge only

Basic Code
1VR00



Complete valve

3/4" Ports
Basic Code
1VR150



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

Note: Tightening torque of "F" adjuster locknut - 20 to 25 Nm

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