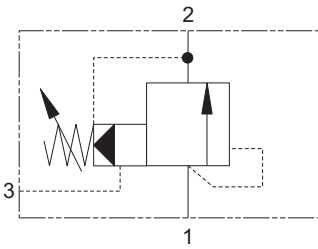


1VR100 - Relief Valve

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



Operation

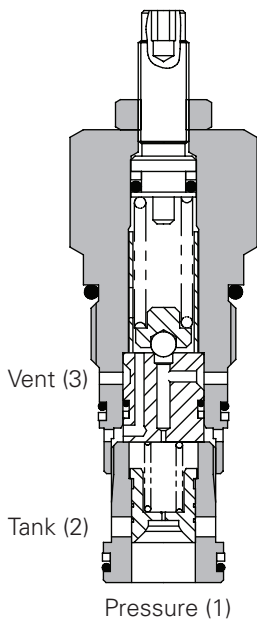
When inlet pressure exceeds the setting of the valve, the pilot section opens. The pilot flow causes a pressure imbalance across the main section spool causing it to open, allowing relief flow to tank.

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)

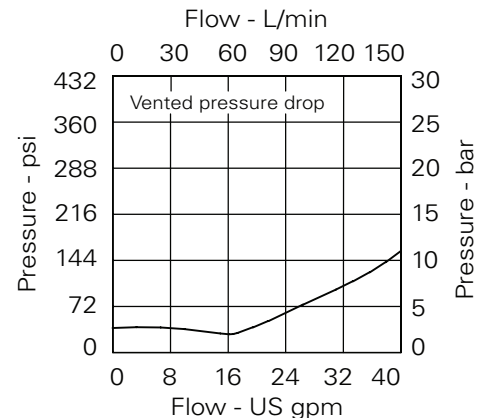
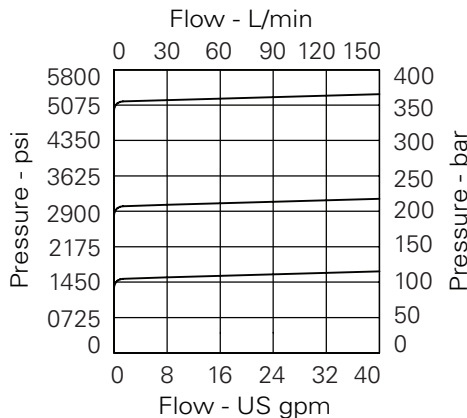
| | |
|------------------------------|--|
| Rated flow | 100 L/min (26 USgpm) |
| Max setting | 350 bar (5000 psi) |
| Cartridge material | Working parts hardened and ground steel. External surfaces zinc plated. |
| Body material | Standard aluminium (up to 210 bar). Add suffix "377" for steel option. |
| 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



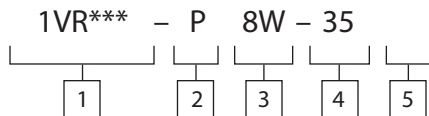
Where measurements are critical request certified drawings. We reserve the right to change specifications without notice.

1VR100 - Relief Valve

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

1VR100P35S-SP230BAR

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 Sizes

| Code | Port Size | Housing Number - Body Only | |
|------|-----------|----------------------------|--------|
| | | Aluminium | Steel |
| 6W | 3/4" BSP | B4377 | B4378 |
| 12T | 3/4" SAE | B10785 | B11554 |

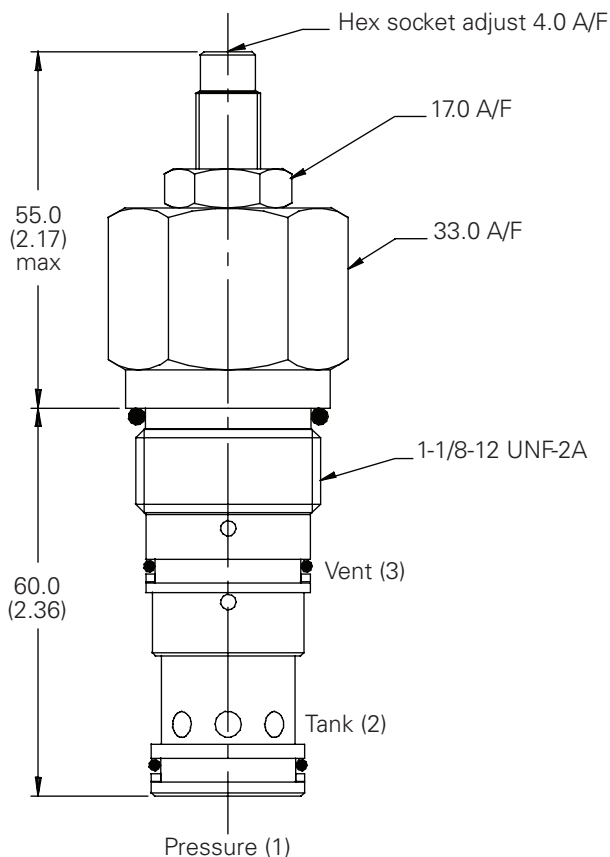
4 Pressure Range

@ 14 l/min Note:
2035Std setting made at 14 L/min
Seals
S SV

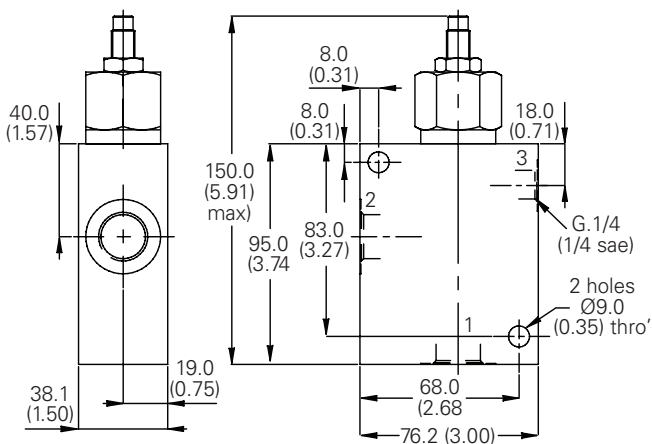
Dimensions

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