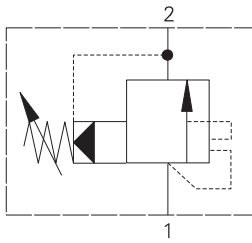


IUAR100 - Relief valve

Spool, pilot operated, unloading
 150L/min (40 USgpm) • 350 bar (5000 psi)



Operation

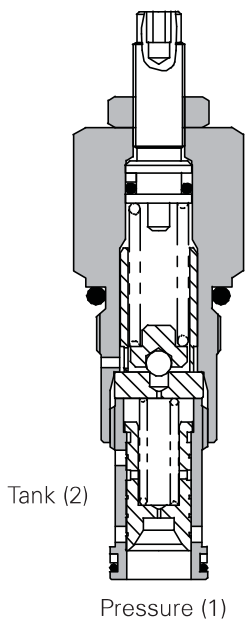
System pressure acts on the pilot section of the valve. When the valve setting is reached, the pilot section opens and the pilot flow causes the spool to move back uncovering the radial vent port.

The main section then opens fully with pilot flow passing through the vent port. When the system pressure is reduced to zero the valve will close.

Features

High accuracy of pilot operated design. Hardened working parts give long, reliable, trouble-free life. 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)

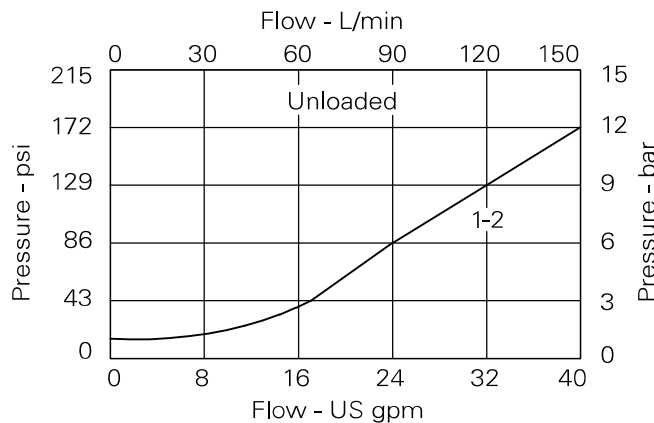
| | |
|------------------------------|--|
| Rated flow | 150 L/min (40 USgpm) |
| Max setting | 350 bar (5000 psi) |
| Cartridge material | Working parts hardened and ground steel. External surfaces zinc plated. |
| Body material | Standard aluminium (up to 210 bar*). Add suffix "377" for steel option. |
| Mounting position | Unrestricted |
| Cavity | A881 (See Section M) |
| Torque cartridge into cavity | 60 Nm (44 lbs ft) |
| Weight | 1UAR100 0.14 kg (0.30 lbs) 1UAR145 0.34 kg (0.75 lbs) 1UAR150 0.65 kg (1.40 lbs) 1UAR155 0.91 kg (2.00 lbs) |
| Seal kit | SK164 (Nitrile) SK164V (Viton®) |
| Recommended filtration level | BS5540/4 Class 18/13 (25 micron nominal) |
| Operating temp | -30°C to +90°C (-22° to +194°F) |
| Leakage | 100 milliliters/min nominal |
| Nominal viscosity range | 5 to 500 cSt |

Viton is a registered trademark of E.I. DuPont

Description

The off-loading (kick-down) relief valve opens to unload a hydraulic system if the system pressure exceeds the valve setting. It acts as a fuse to protect persons and machinery where prolonged operation at excess pressure cannot be tolerated.

Pressure drop curves

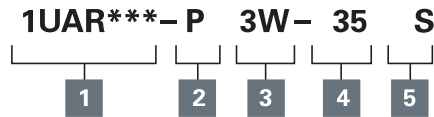


Where measurements are critical request certified drawings. We reserve the right to change specifications without notice.

1UAR100 - Relief valve

Spool, pilot operated, unloading
150L/min (40 USgpm) • 350 bar (5000 psi)

Model code



1 Function

- 1UAR100** - Cartridge Only
- 1UAR145** - Cartridge and Body
- 1UAR150** - Cartridge and Body Through Ported
- 1UAR155** - Cartridge and Body Through Ported

2 Adjustment means

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

3 Port size

| Code | Port size | Housing number - body only | | | | |
|------------|-----------|----------------------------|----------------------|------------------|----------------------|------------------|
| | | Aluminium 1UAR145 | Aluminium 1UAR150 | Steel 1UAR150 | Aluminium 1UAR155 | Steel 1UAR155 |
| 3W | 3/8" BSP | | C1084 | | | |
| 4W | 1/2" BSP | B4851 | C1044 | C593 | | |
| 6W | 3/4" BSP | B3954 | C1086 | C4917 | | |
| 8W | 1" BSP | | | | B1617 | B4596 |
| 6T | 3/8" SAE | | B10784 | | | |
| 8T | 1/2" SAE | B19403 | C7140 | | | |
| 12T | 3/4" SAE | B19404 | B10506 | B10742 | | |
| 16T | 1" SAE | | | | B1037 | B24040 |

4 Pressure range

Note: Code based on pressure in bar.

- 7** - 2-70 bar.
Std setting 35 bar
- 20** - 10-210 bar.
Std setting 100 bar
- 40** - 50-350 bar.
Std setting 210 bar
Std setting made at 14 L/min

5 Seals

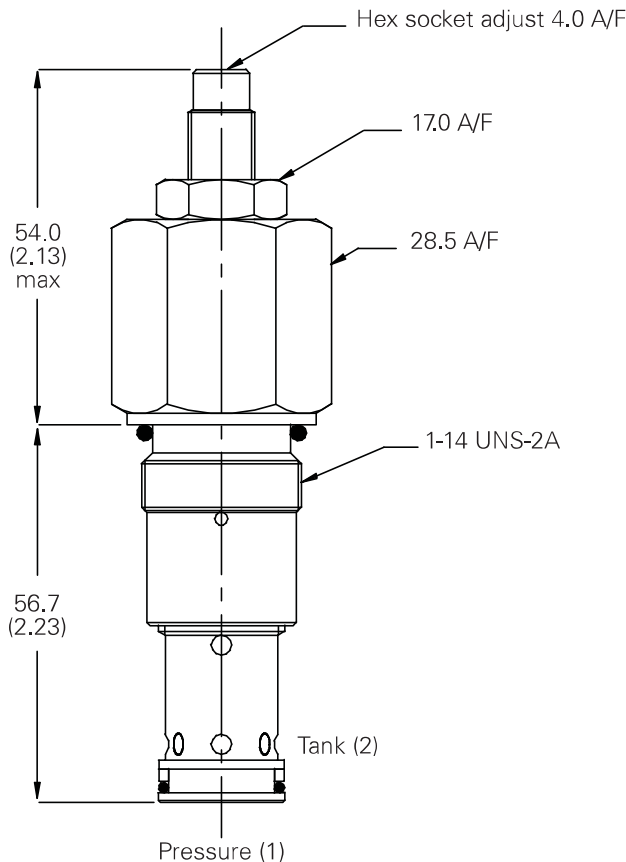
- S** - Nitrile (For use with most industrial hydraulic oils)
- SV** - Viton (For high temperature and most special fluid applications)

Dimensions

mm (inch)

Cartridge only

Basic Code
1UAR100



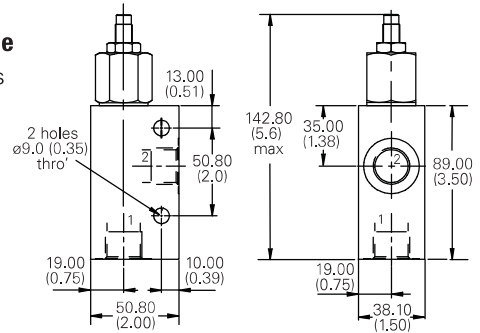
Note: For applications above 210 bar, please consult our technical department or use the steel body option.

Complete valve

1/2", 3/4" Ports

Basic Code

1UAR145

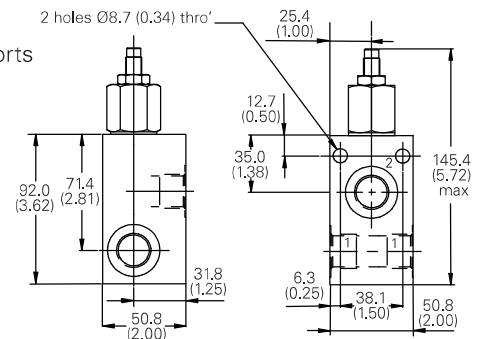


Complete valve

3/8", 1/2", 3/4" Ports

Basic Code

1UAR150

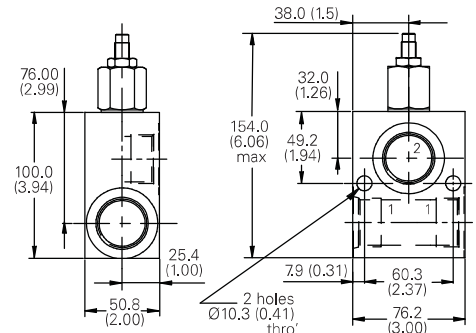


Complete valve

1" Ports

Basic Code

1UAR155



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