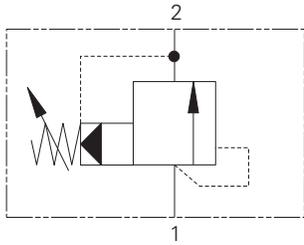


1AR100 - Relief Valve

Spool, pilot operated

150 L/min (40 USgpm) • 400 bar (5800 psi)



Operation

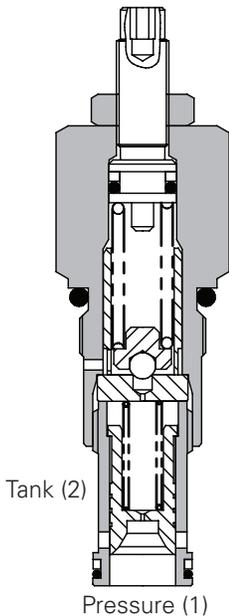
When the inlet pressure exceeds the setting of the valve, the pilot section opens, causing a small flow across the orifice in the main spool.

The subsequent pressure drop moves the spool against a light spring opening a ring of radial holes in the sleeve, allowing relief flow to tank.

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)

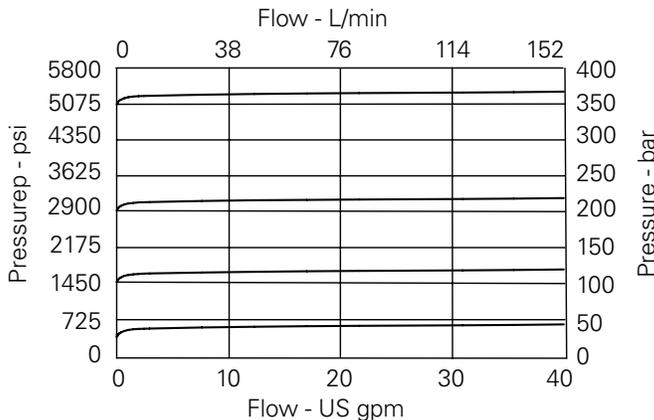
Rated flow	150 L/min (40 USgpm)
Max setting 1AR100	400 bar (5800 psi)
Cartridge material	Working parts hardened and ground steel. External surfaces zinc plated.
Body material	Standard aluminium (up to 210 bar*). Add suffix "377" for steel option.
Mounting position	Unrestricted
Cavity	A881 (See Section M)
Torque cartridge into cavity	60 Nm (44 lbs ft)
Weight 1AR100	0.14 kg (0.3 lbs)
1AR150	0.65 kg (1.4 lbs)
1AR155	0.91 kg (2.0 lbs)
Seal kit	SK164 (Nitrile) SK164V (Viton)
Recommended filtration level	BS5540/4 class 18/13 (25 micron nominal)
Operating temp	-30° to +90°C (-22° to +194°F)
Leakage	20 to 65 milliliters/min nominal
Nominal viscosity range	5 to 500 cSt

Viton is a registered trademark of E.I. DuPont

Description

To limit pressure in a system. Good for continuous duty and accurate pressure control with constant or varying flows.

Pressure Drop Curves

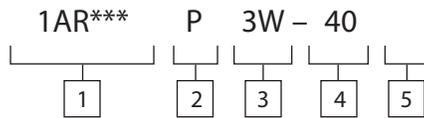


1AR100 - Relief Valve

Spool, pilot operated

150 L/min (40 USgpm) • 400 bar (5800 psi)

Model Code



1 Function
 1AR100 - Cartridge Only
 1AR145 - Cartridge and Body
 1AR150/1AR155
 - 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 1AR145	Aluminium 1AR150	Steel 1AR150	Aluminium 1AR155 1AR155	
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 - 10-70 bar.
 Std setting 35 bar
 20 - 10-210 bar.
 Std setting 100 bar
 40 - 50-400 bar.
 Std setting 280 bar

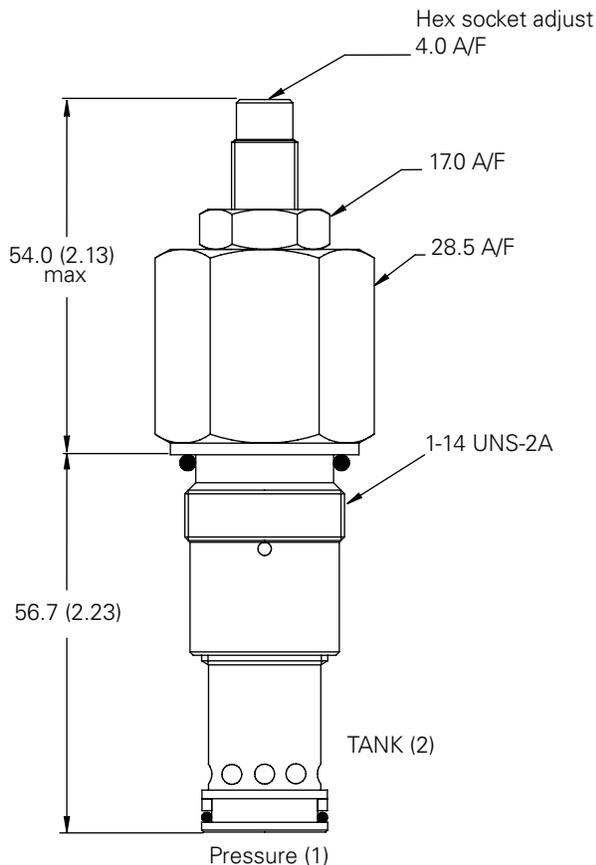
5 Seals
 S - Nitrile (For use with most industrial hydraulic oils)
 SV - Viton® (For high temperature and most special fluid applications)



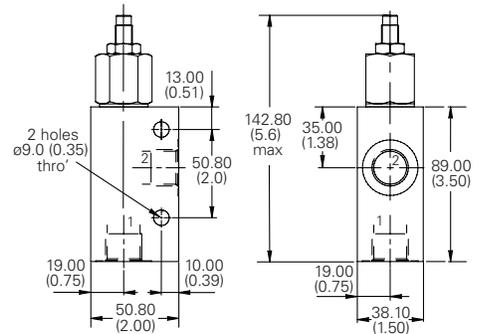
Dimensions

Cartridge Only
 Basic Code
 1AR100

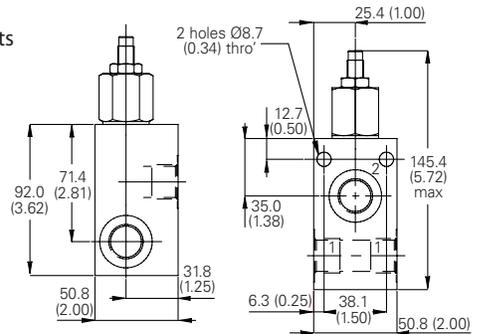
Note: For applications above



Complete Valve
 1AR145



Complete Valve
 3/8", 1/2", 3/4" Ports
 Basic Code
 1AR150



Complete Valve
 1" Ports
 Basic Code
 1AR155

