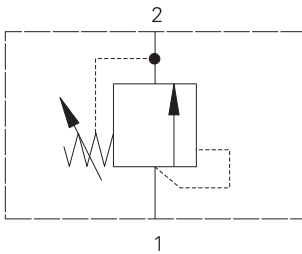


1GR100 - Relief valve

Spool, direct acting
150 L/min (40 USgpm) • 40 bar (600 psi)



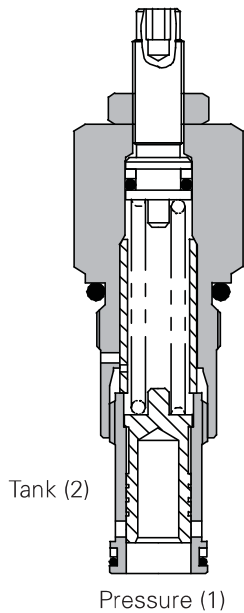
Operation

The valve is held closed by the spring until pressure on the piston overcomes the valve setting, allowing relief flow to tank through a ring of radial holes.

Features

Stable, quiet operation.
Cartridge construction gives maximum flexibility in mounting. Offering good repeatability and reset.

Sectional view



Performance data

Ratings and specifications

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

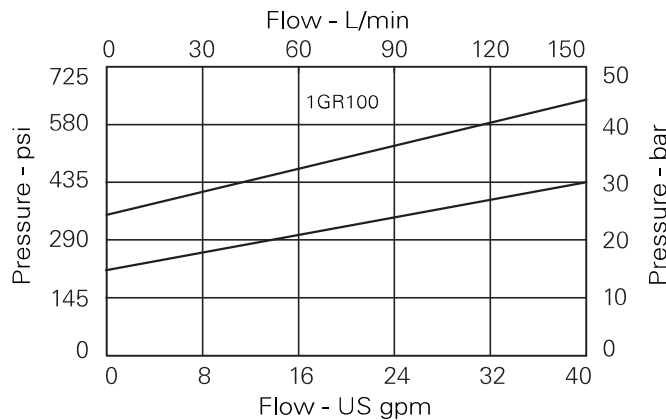
Rated flow	150 L/min (40 USgpm)	
Max setting	40 bar (600 psi)	
Cartridge material	Working parts hardened and ground steel. External surfaces zinc plated.	
Body material	Standard aluminium (up to 210 bar*). Add suffix "377" for steel option.	
Mounting position	Unrestricted	
Cavity	A881 (See Section M)	
Torque cartridge into cavity	60 Nm (44 lbs ft)	
Weight	1GR100	0.31 kg (0.7 lbs)
	1GR145	0.54 kg (1.2 lbs)
	1GR150	0.91 kg (2.0 lbs)
	1GR155	1.08 kg (2.4 lbs)
Seal kit	SK190 (Nitrile)	
	SK190V (Viton®)	
Recommended filtration level	BS5540/4 Class 18/13 (25 micron nominal)	
Operating temp	-30° to +90°C (-22° to 194°F)	
Leakage	15 milliliters/min nominal	
Nominal viscosity range	5 to 500 cSt	

Viton is a registered trademark of E.I. DuPont

Description

This is a direct acting spool type screw in cartridge relief valve. Ideal for low pressure applications, giving good control with fairly constant flow. Also very quiet in operation when applied on low flow or unstable hydraulic systems.

Pressure drop curves



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

1GR100 - Relief valve

Spool, direct acting
150 L/min (40 USgpm) • 40 bar (600 psi)

Model code



1 Basic code

- 1GR100** - Cartridge Only
- 1GR145** - Cartridge and Body
- 1GR150** - Cartridge and Body Through Ported
- 1GR155** - 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 1GR145	Aluminium 1GR150	Steel 1GR150	Aluminium 1GR155	Steel 1GR155
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		C7140			
12T	3/4" SAE		B10506	B10742		
16T	1" SAE				B1037	B24040

4 Pressure range @ 4.8 l/min

Note: Code based on pressure in bar.

- 0.6** - 0.3-6 bar. Std setting 6 bar
 - 2** - 5-25 bar. Std setting 20 bar
 - 4** - 5-40 bar. Std setting 28 bar
- Std setting made at 4.8 L/min

5 Seals

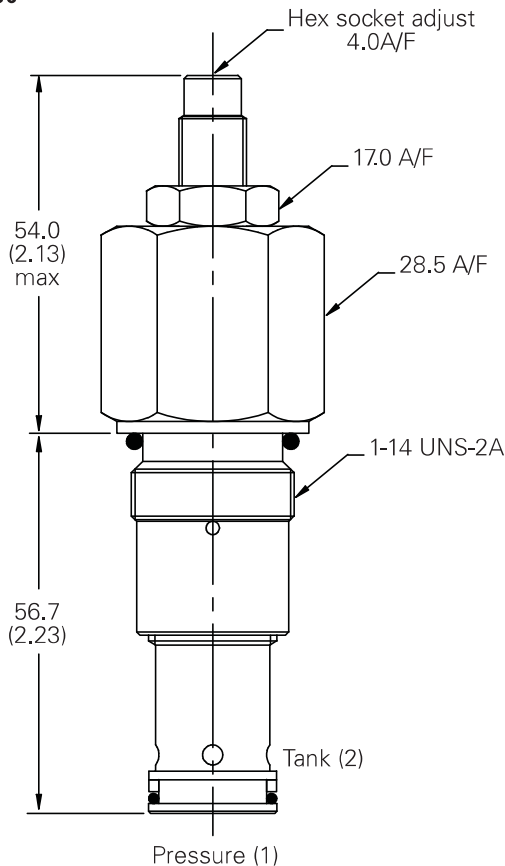
- S** - Nitrile (For use with most industrial hydraulic oils)
- SV** - Viton (For high temperature and most special fluid applications)

Dimensions

mm (inch)

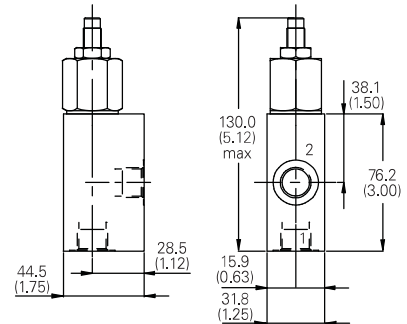
Cartridge only

Basic Code
1GR100

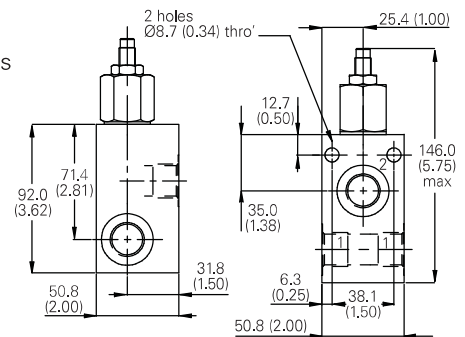


Note: For applications above 210 bar, please consult our technical department or use the steel body option.

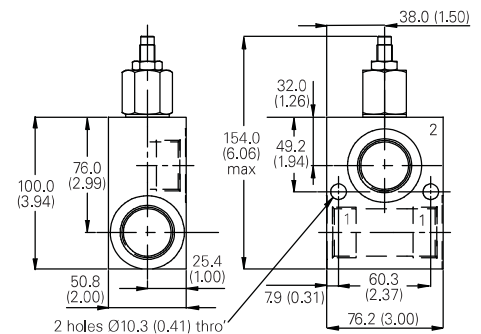
Complete valve
1/2", 3/4" Ports
Basic Code
1GR145



Complete valve
3/8", 1/2", 3/4" Ports
Basic Code
1GR150



Complete valve
1" Ports
Basic Code
1GR155



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