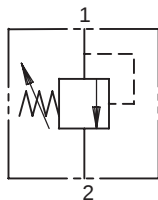




1GR SERIES RELIEF VALVE

DIRECT ACTING

2

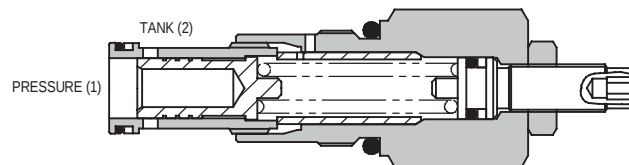
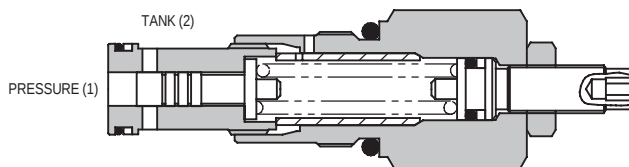


1GR30

SLIDING SPOOL TYPE

1GR100

SLIDING SPOOL TYPE



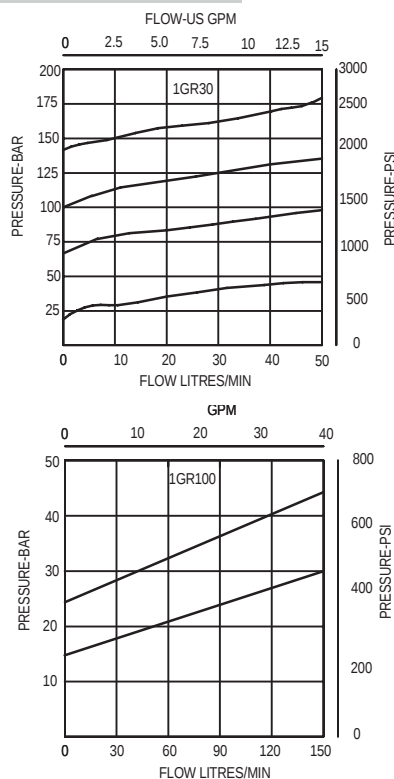
APPLICATION

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.

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.

PRESSURE DROP



FEATURES

Stable, quiet operation. Cartridge construction to give maximum flexibility in mounting. Offering good repeatability and reseal.

SPECIFICATIONS

Figures based on: Oil Temp = 40°C Viscosity = 40 cSt

Rated Flow	1GR30 30 litres/min (8 US GPM) 1GR100 150 litres/min (40 US GPM)
Max Setting	1GR30 160 bar (2300 psi) 1GR100 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 Number	A881 (See Section 17)
Torque Cartridge into Cavity	60 Nm (44 lbs ft)
Weight	1GR30/1GR100 0.31 kg (0.7 lbs) 1GR35/1GR145 0.54 kg (1.2 lbs) 1GR36/1GR150 0.91 kg (2.0 lbs) 1GR155 1.08 kg (2.4 lbs)
Seal Kit Number	SK190 (Nitrile) SK190V (Viton)
Recommended Filtration Level	BS5540/4 Class 18/13 (25 micron nominal)
Operation Temp	-20°C to +90°C
Leakage	15 millilitres/min nominal
Nominal Viscosity Range	5 to 500 cSt

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

Integrated Hydraulics Ltd

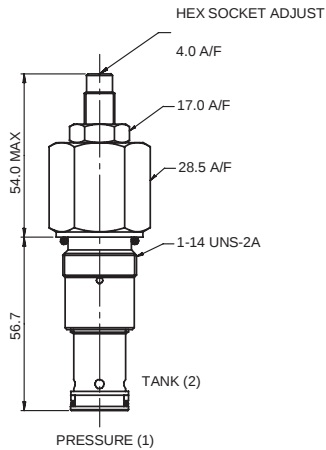
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Tel: +44 (0) 1926 881171 Fax: +44 (0) 1926 315729
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Integrated Hydraulics Inc

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CARTRIDGE ONLY

BASIC CODE: 1GR30 OR 1GR100

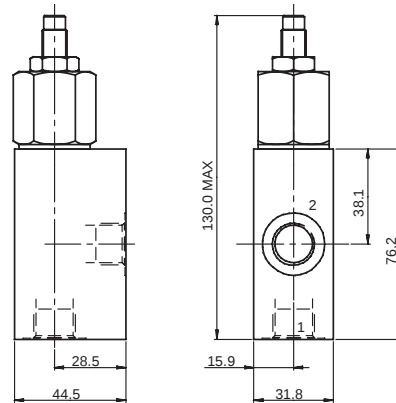


COMPLETE VALVE 1/2" 3/4" PORTS

BASIC CODE: 1GR35 OR 1GR145

Body ONLY part numbers

BSP, aluminium
1/2" B4851
3/4" B3954



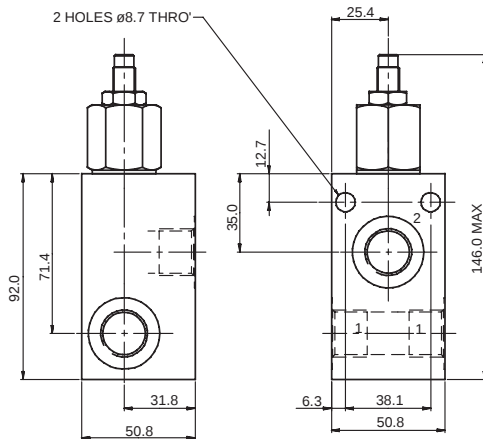
2

COMPLETE VALVE 3/8" 1/2" 3/4" PORTS

BASIC CODE: 1GR36 OR 1GR150

Body ONLY part numbers

BSP, aluminium	SAE, aluminium	BSP, steel	SAE, steel
3/8" C1084	3/8" B10784	1/2" C593	
1/2" C1044	1/2" C7140	3/4" C4917	3/4" B10742
3/4" C1086	3/4" B10506		

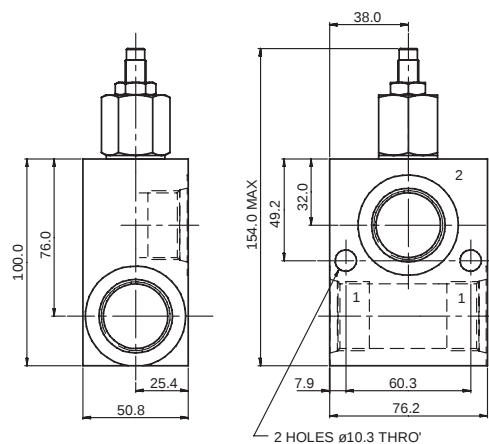


COMPLETE VALVE 1" PORTS

BASIC CODE: 1GR155

Body ONLY part numbers

BSP, aluminium	SAE, aluminium	BSP, steel	SAE, steel
1" B1617	1" B1037	1" B4596	1" B24040



Where measurements are critical request certified drawings

ORDERING CODE EXAMPLE

1GR P 3W 16 S**

Basic Code

1GR30 / 1GR100 = Cartridge Only
1GR35 / 1GR145 = Cartridge and Body
1GR36 / 1GR150 / 1GR155 = Cartridge and Body through ported

Adjustment Means

P = Leakproof Screw Adjustment
R = Handknob Adjustment
G = Tamperproof Cap
(See page 2-102 for dimensions)

Port Sizes - Bodied Valves Only

3W = 3/8" BSP 6T = 3/8" SAE
4W = 1/2" BSP 8T = 1/2" SAE
6W = 3/4" BSP 12T = 3/4" SAE
8W = 1" BSP 16T = 1" SAE

Seals

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

Pressure Range @ 4.8 l/min

1GR30:

7 = 7-70 bar. Std setting 35 bar

16 = 14-160 bar. Std setting 155 bar

1GR100:

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 litres/min

We reserve the right to change specifications without notice