



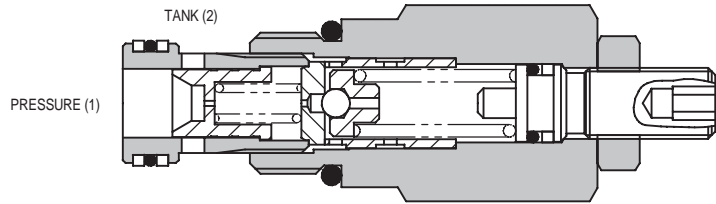
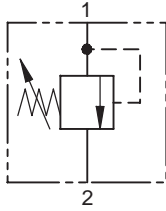
1AR SERIES RELIEF VALVE

PILOT OPERATED (ISO CAVITY NUMBER: 7789-20-1-0-90)

1AR60

SLIDING SPOOL TYPE

2



APPLICATION

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

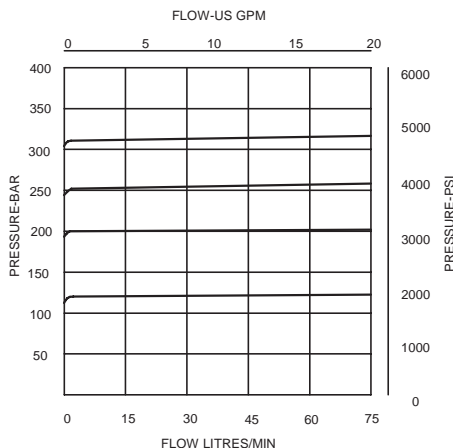
FEATURES

High accuracy of pilot operated design. Hardened working parts give long, reliable, trouble-free life. Cartridge construction for installation into your own manifold.

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.

PRESSURE DROP



SPECIFICATIONS

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

Rated Flow	60 litres/min (16 US GPM)	
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 Number	CVA20-01-0 (See Section 17)	
Torque Cartridge into Cavity	45 Nm (33 lbs ft)	
Weight	1AR60	0.18 kg (0.4 lbs)
	1AR65	0.36 kg (0.8 lbs)
	1AR66	0.48 kg (1.0 lbs)
Seal Kit Number	SK613 (Nitrile) SK613V (Viton)	
Recommended Filtration Level	BS5540/4 Class 18/13 (25 micron nominal)	
Operation Temp	-20°C to +90°C (Standard seals)	
Leakage	35 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

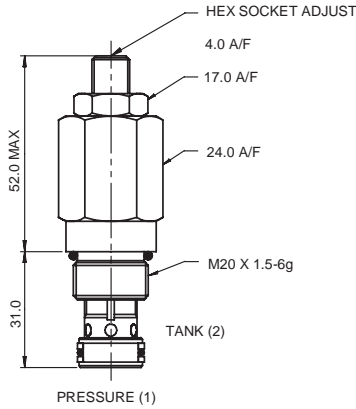
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CARTRIDGE ONLY

BASIC CODE: 1AR60

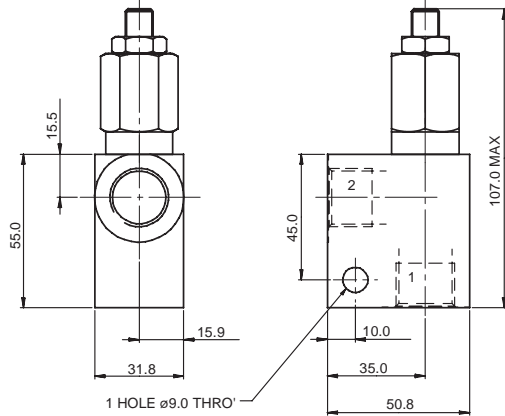


COMPLETE VALVE 3/8" 1/2" PORTS

BASIC CODE: 1AR65

Body ONLY part numbers

BSP, aluminium	SAE, aluminium	BSP, steel	SAE, steel
3/8" A13758	3/8" A10780	3/8" A13615	1/2" A11798
1/2" A8532	1/2" A10781		

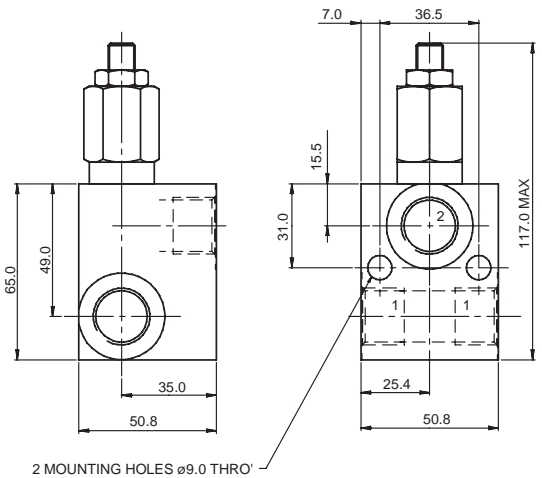


COMPLETE VALVE 1/2" PORTS

BASIC CODE: 1AR66

Body ONLY part numbers

BSP, aluminium	SAE, aluminium	BSP, steel	SAE, steel
1/2" B13011	1/2" B10783	1/2" B13473	1/2" B13477



Where measurements are critical request certified drawings

ORDERING CODE EXAMPLE

1AR P 3W 35 S**

Basic Code

- 1AR60** = Cartridge Only
- 1AR65** = Cartridge and Body
- 1AR66** = 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

Seals

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

Pressure Range @ 14 l/min

- 10** = 10-100 bar. Std setting 50 bar
 - 20** = 10-210 bar. Std setting 100 bar
 - 35** = 50-350 bar. Std setting 280 bar
- Std setting made at 14 litres/min

We reserve the right to change specifications without notice