

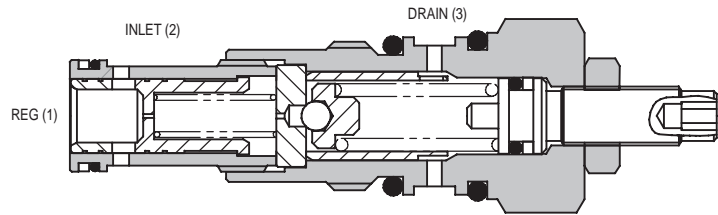
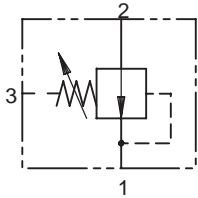


1PA SERIES PRESSURE REDUCING VALVE

PILOT OPERATED

1PA100

SLIDING SPOOL TYPE



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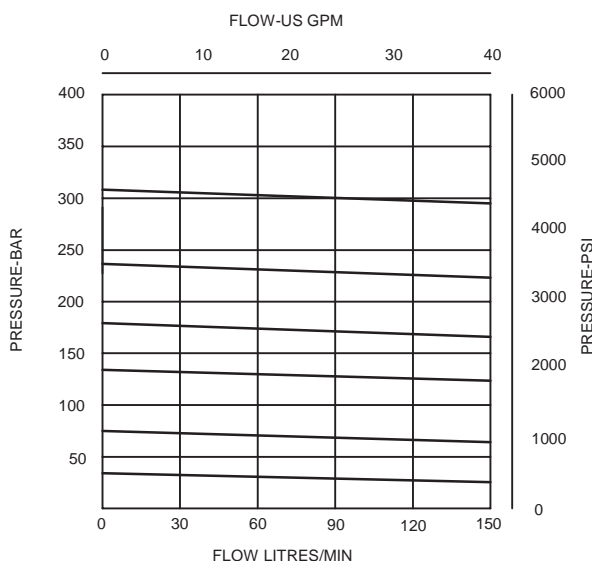
APPLICATION

To maintain a constant downstream pressure lower than the inlet pressure. Ideal for use in two pressure systems or to protect low pressure actuators such as brake cylinders.

OPERATION

This valve is normally open, allowing oil from the inlet to pass through to the regulated port of the cartridge. When the regulated pressure reaches the valve setting, the pilot section opens causing a pressure imbalance across the main spool which moves, throttling the inlet flow, preventing any further pressure rise in the regulated line.

REGULATED PRESSURE



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

FEATURES

Internal parts hardened, match ground and honed to give long, trouble-free life. Pilot style design allows for high flows and accurate performance.

SPECIFICATIONS

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

Rated Flow	100 litres/min (26 US GPM)
Pressure Range	10 to 350 bar (150 to 5000 psi)
Max Differential	210 bar (3000 psi) between 1 and 2
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	A880 (See Section 17)
Torque Cartridge into Cavity	60 Nm (44 lbs ft)
Weight	1PA100 0.17 kg (0.37 lbs) 1PA150 0.60 kg (1.32 lbs)
Seal Kit Number	SK177 (Nitrile) SK177V (Viton)
Recommended Filtration Level	BS5540/4 Class 18/13 (25 micron nominal)
Operating Temp	-20°C to +90°C
Pilot Flow	500 millilitres/min @ standard setting
Nominal Viscosity Range	5 to 500 cSt

Integrated Hydraulics Ltd

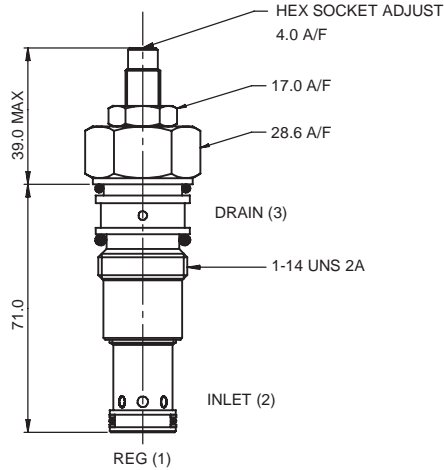
Collins Road, Heathcote Ind. Est., Warwick, CV34 6TF, UK.
Tel: +44 (0) 1926 881171 Fax: +44 (0) 1926 315729
Website: www.integratedhydraulics.com

Integrated Hydraulics Inc

7047 Spinach Drive, Mentor, Ohio 44060, USA
Tel: (440) 974 3171 Fax: (440) 974 3170
Website: www.integratedhydraulics.com

CARTRIDGE ONLY

BASIC CODE: 1PA100



COMPLETE VALVE

1/2" 3/4" PORTS

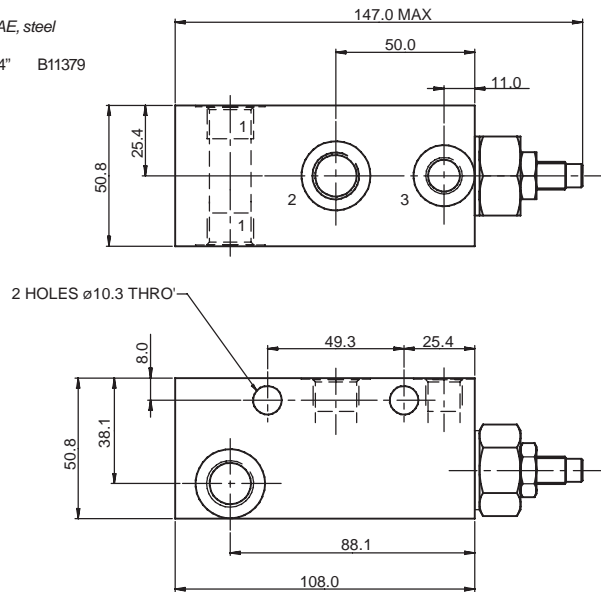
BASIC CODE: 1PA150

Body ONLY part numbers

<i>BSP, aluminium</i>	<i>SAE, aluminium</i>
1/2" B4821	1/2" B6584
3/4" B5466	3/4" B7883

<i>BSP, steel</i>
1/2" B4527
3/4" B4403

<i>SAE, steel</i>
3/4" B11379



Where measurements are critical request certified drawings

ORDERING CODE EXAMPLE

1PA* P 4W 35 S**

Basic Code

1PA100 = Cartridge Only
1PA150 = Cartridge and Body

Adjustment Means

P = Leakproof Screw Adjustment
R = Handknob Adjustment
G = Tamperproof Cap
(See page 5-102 for dimensions)

Port Sizes - Bodied Valves Only

4W = 1/2" BSP **8T** = 1/2" SAE
6W = 3/4" BSP **12T** = 3/4" SAE
1/4" BSP Drain Ports 1/4" SAE Drain Ports

Seals

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

Pressure Range @ zero flow

7 = 10- 70 bar. Std setting 20 bar
20 = 15-210 bar. Std setting 100 bar
35 = 30-350 bar. Std setting 280 bar
Std setting made at zero flow (dead head)

We reserve the right to change specifications without notice