

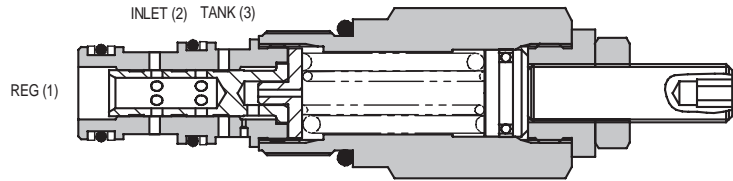
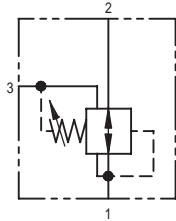


1PD SERIES PRESSURE REDUCING VALVE

DIRECT ACTING WITH REVERSE RELIEF

1PD50

SLIDING SPOOL TYPE



5

APPLICATION

To provide an adjustable regulated pressure which is lower than supply pressure, as when more than one operating pressure is required from one pump. Direct acting models are suited to lower flow applications and regulated pressures to 140 bar (2000 psi). This valve also acts as a relief valve, relieving from regulated line to tank if shock or surge pressures occur in the regulated line.

OPERATION

Normally open, the valve throttles or closes to maintain constant pressure in the regulated line. As in the other direct acting valves, the spring force holds the valve open.

FEATURES

Hardened steel working parts are individually match ground to assure long life, reliability and high accuracy.

SPECIFICATIONS

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

Rated Flow	30 litres/min (8 US GPM)
Max Setting	Up to 140 bar (2000 psi)
Max Inlet Pressure	350 bar (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	A12743 (See Section 17)
Torque Cartridge into Cavity	60 Nm (44 lbs ft)
Weight	1PD50 0.24 kg (0.53 lbs) 1PD55 1.15 kg (2.53 lbs)
Seal Kit Number	SK1260 (Nitrile) SK1260V (Viton)
Recommended Filtration Level	BS5540/4 Class 18/13 (25 micron nominal)
Operating Temp	-20°C to +90°C
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.

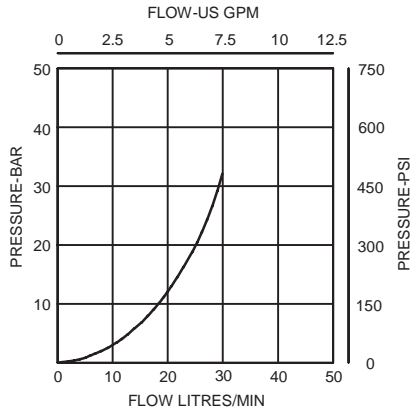
Integrated Hydraulics Ltd

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

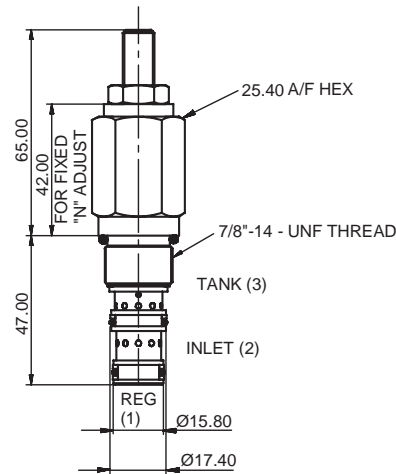
7047 Spinach Drive, Mentor, Ohio 44060, USA
Tel: (440) 974 3171 Fax: (440) 974 3170
Website: www.integratedhydraulics.com

PRESSURE DROP



CARTRIDGE ONLY

BASIC CODE: 1PD50



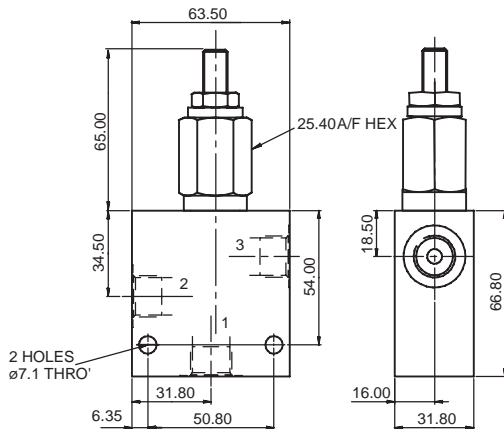
5

COMPLETE VALVE 3/8" 1/2" PORTS

BASIC CODE: 1PD55

Body ONLY part numbers

BSP, aluminium	SAE, aluminium
3/8" B18982	3/8" B19359
1/2" B19358	1/2" B19360

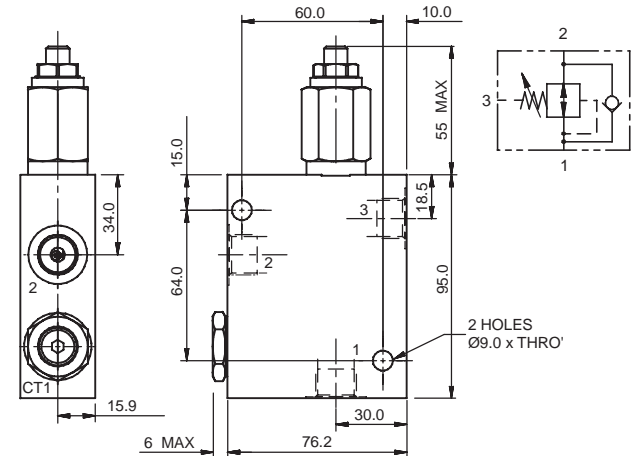


COMPLETE VALVE 3/8" 1/2" PORTS

BASIC CODE: 1PDC55

Sub assembly part number

BSP, aluminium	SAE, aluminium
3/8" BXP23990-3W-S	3/8" BXP23990-6T-S
1/2" BXP23990-4W-S	1/2" BXP23990-8T-S



Where measurements are critical request certified drawings

ORDERING CODE EXAMPLE

1PD P 3W 12 S**

Basic Code

- 1PD50 = Cartridge Only
- 1PD55 = Cartridge and Body
- 1PDC55 = Cartridge, Body and Check

Adjustment Means

- P = Leakproof Screw Adjustment
- N = Fixed (For fixed versions add setting in 10 bar increments to end of part number. Subject to a ±10% tolerance.)

Port Sizes - Bodied Valves Only

- 3W = 3/8" BSP
- 4W = 1/2" BSP
- 6T = 3/8" SAE
- 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 @ zero flow

- 2 = 5 - 25 bar. Std setting 15 bar
 - 6 = 20 - 75 bar. Std setting 30 bar
 - 12 = 30 - 140 bar. Std setting 60 bar
- Std setting made at zero flow (dead head)

We reserve the right to change specifications without notice