

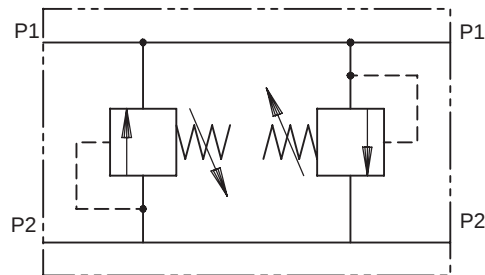


1LLR SERIES DUAL RELIEF VALVE

DIRECT ACTING DIFFERENTIAL AREA

1LLR150

POPPET TYPE



3

APPLICATION

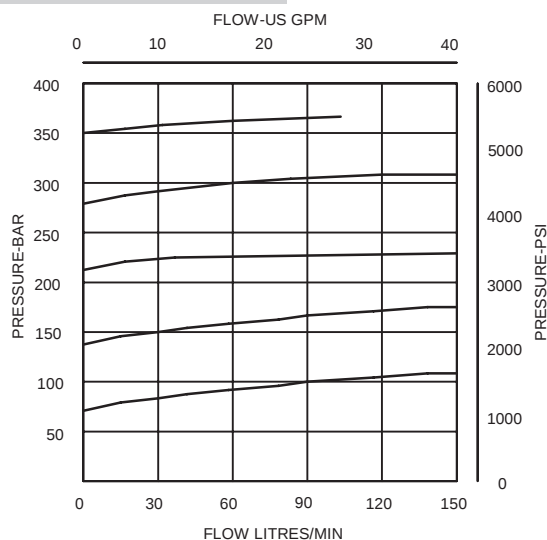
To protect directional control valves or motors from shock or surge pressures induced by changes in direction or sudden stops which create excessive load conditions.

OPERATION

The dual relief is of the cross line type, where exhaust oil from one line is transferred to the other, negating the need for a separate tank line. It also prevents cavitation when used in conjunction with a closed centre directional valve. For greatest protection the valve should be mounted as close to the actuator or motor as possible.

Note for single rod cylinders, anti-cavitation check valves and a separate tank line are necessary. See page 3-161.

PRESSURE DROP



FEATURES

Soft start and stop with fast acting operation to give maximum protection to expensive actuators. Reduces plumbing to a minimum and cartridge construction makes for easy maintenance.

SPECIFICATIONS

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

Rated Flow	150 litres/min (40 US GPM)
Max Setting	350 bar (5000 psi)
Cartridge Material	Working parts hardened and ground steel. External steel surfaces zinc plated
Body Material	Standard aluminium (up to 210 bar*) Add Suffix '377' for steel option
Mounting Position	Line mounted
Weight	1.14 kg (2.50 lbs)
Seal Kit Number	SK362 (Nitrile) SK362V (Viton)
Recommended Filtration Level	BS5540/4 Class 18/13 (25 micron nominal)
Operating Temp	-20°C to +90°C
Leakage	0.3 millilitres/min max (5 dpm)
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

COMPLETE VALVE 1" PORTS

BASIC CODE: 1LLR150

Sub-assembly part numbers

BSP, aluminium

1" BXP24101-8W-S

SAE, aluminium

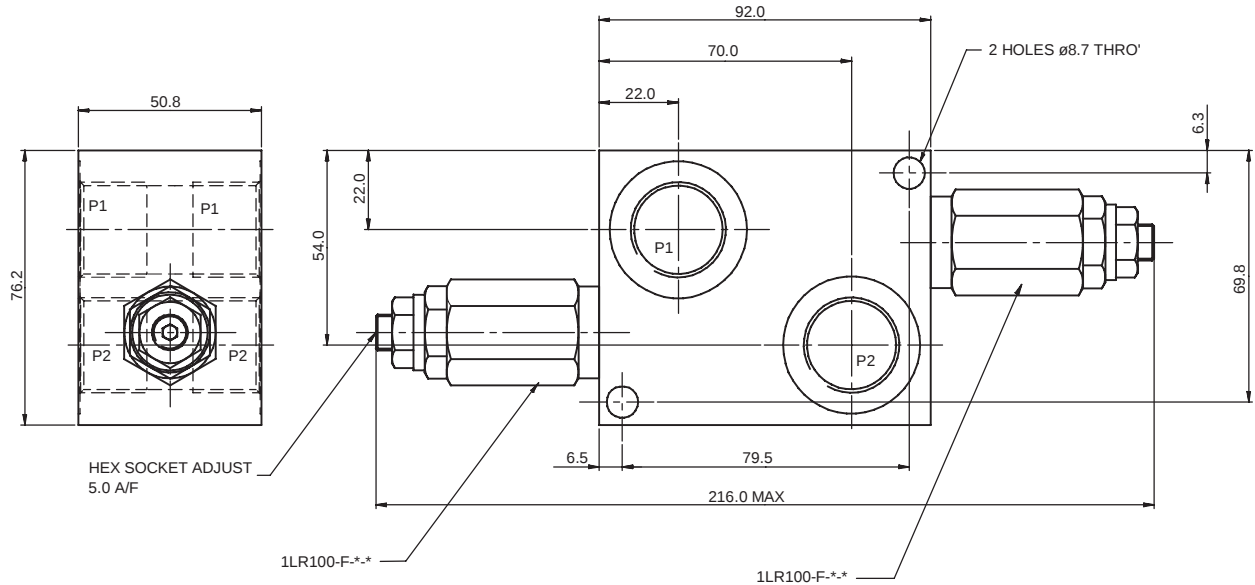
1" BXP24101-16T-S

BSP, steel

1" BXP24101-8W-S-377

SAE, steel

1" BXP24101-16T-S-377



Tightening torque of "F" adjuster
locknut - 20 to 25 Nm

ORDERING CODE EXAMPLE

1LLR150 F 8W 35 S

Basic Code

1LLR150 = Cartridges and Body Only

Adjustment Means

F = Screw Adjustment

Port Sizes - Bodied Valves Only

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 @ 14 l/min

17 = 35-175 bar. Std setting 105 bar

28 = 75-285 bar. Std setting 170 bar

35 = 114-350 bar. Std setting 280 bar
Std setting made at 14 litres/min

We reserve the right to change specifications without notice