

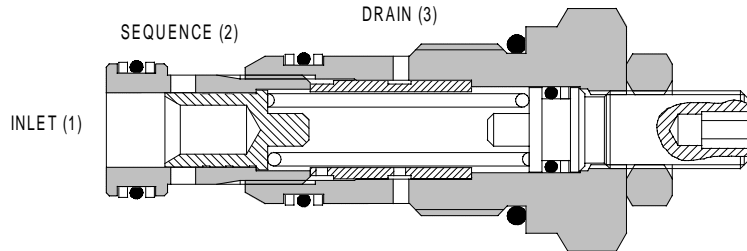
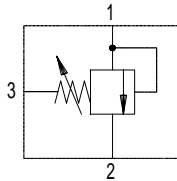


1DS SERIES SEQUENCE VALVE

DIRECT ACTING (ISO CAVITY NUMBER: 7789-22-6-0-90)

1DS60

SLIDING SPOOL TYPE



4

APPLICATION

Direct acting sequence valves are ideal for diverting oil to a second circuit at a predetermined pressure as in clamp and drill circuits, or as a relief where the back pressure varies. By taking the drain line directly to tank, back pressure effects are negated.

FEATURES

Stable, quiet operation. Cartridge construction gives maximum flexibility in mounting. Offering good repeatability and reset.

OPERATION

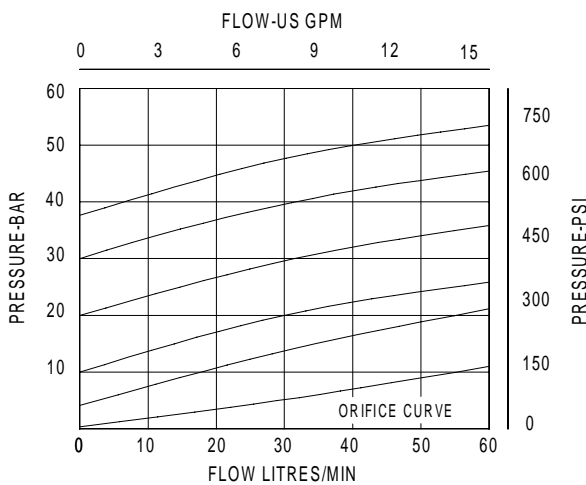
As with the direct acting relief valves, when the pressure exceeds the spring force, the spool moves back, opening the inlet to outlet.

SPECIFICATIONS

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

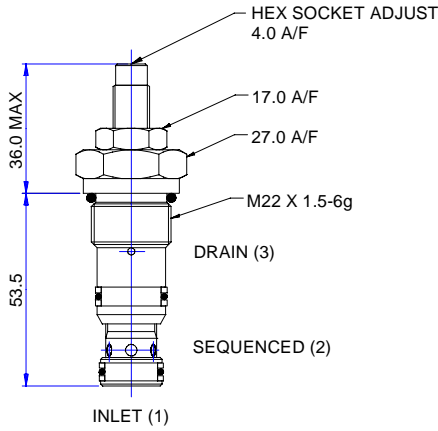
Rated Flow	60 litres/min (16 US GPM)	
Max Setting	350 bar (5000 psi)	
Cartridge Material	Working parts hardened and ground steel. External surfaces zinc plated	
Body Material	Standard aluminium Add Suffix '377' for steel option	
Mounting Position	Unrestricted	
Cavity Number	CVA-22-06-0 (See Section 17)	
Torque Cartridge into Cavity	60 Nm (44 lbs ft)	
Weight	1DS60	0.16 kg (0.35 lbs)
	1DS65	0.50 kg (1.10 lbs)
	1DS66	1.10 kg (2.42 lbs)
Seal Kit Number	SK618 (Nitrile)	SK618V (Viton)
Filtration	BS5540/4 Class 18/12 (25 micron nominal)	
Operating Temp	-20°C to +90°C	
Leakage	25 millilitres/min nominal	
Nominal Viscosity Range	5 to 500 cSt	

PRESSURE DROP



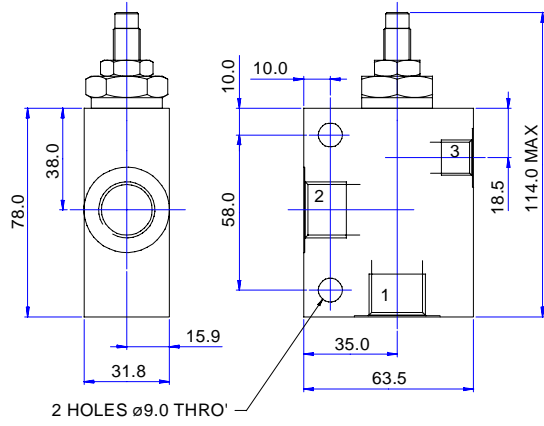
CARTRIDGE ONLY

BASIC CODE: 1DS60



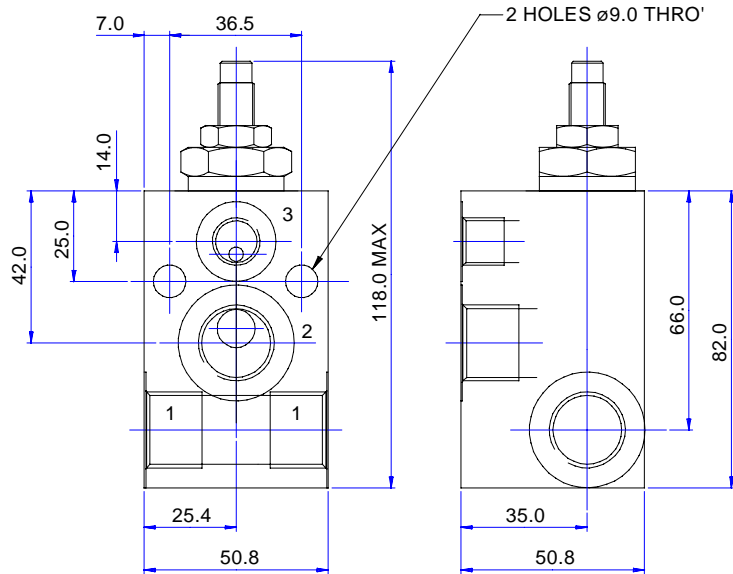
COMPLETE VALVE 3/8" 1/2" PORTS

BASIC CODE: 1DS65



COMPLETE VALVE 3/8" 1/2" PORTS

BASIC CODE: 1DS66



Where measurements are critical request certified drawings

ORDERING CODE EXAMPLE

1DS P 3W 4 S**

Basic Code

Adjustment Means

- P = Leakproof Screw Adjustment
- R = Handknob Adjustment
- G = Tamperproof Cap
- (See page 4-102 for dimensions)

Port Sizes - Bodied Valves Only

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

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

- 2 = 2-20 bar. Std setting 15 bar
- 4 = 8.5-40 bar. Std setting 25 bar
- Std setting made at 4.8 litres/min

We reserve the right to change specifications without notice

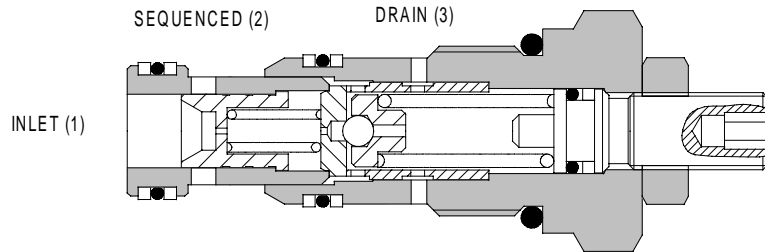
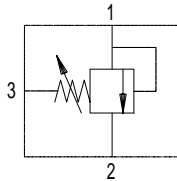


1PS SERIES SEQUENCE VALVE

PILOT OPERATED (ISO CAVITY NUMBER: 7789-22-6-0-90)

1PS60

SLIDING SPOOL TYPE



4

APPLICATION

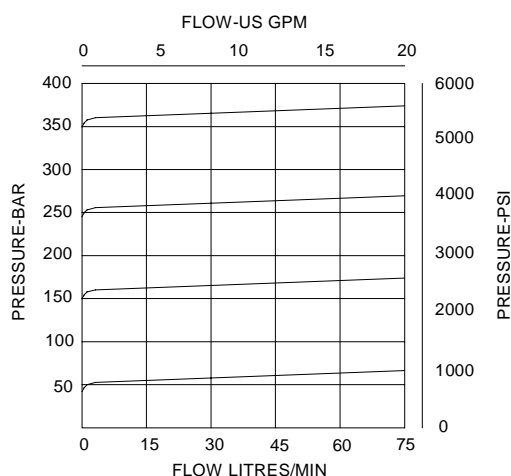
Pilot operated models are best suited for higher flows which may vary widely to:

1. Provide ordered or sequenced series of operations as in a clamp and drill circuit.
2. Serve as a relief valve where oil viscosity or restrictions in the downstream line would cause excessive back pressure. The separate spring chamber drain makes the sequence valve insensitive to this back pressure. Available with or without built-in reverse flow checks.

OPERATION

As in the pilot operated relief, when the setting of the valve is exceeded the pilot section opens. This pilot flow causes a pressure imbalance opening the main section and allowing flow to a secondary circuit (sequenced line).

PRESSURE DROP



FEATURES

Hardened steel working parts give long, trouble-free life. Selectively matched honed assemblies give accurate performance.

SPECIFICATIONS

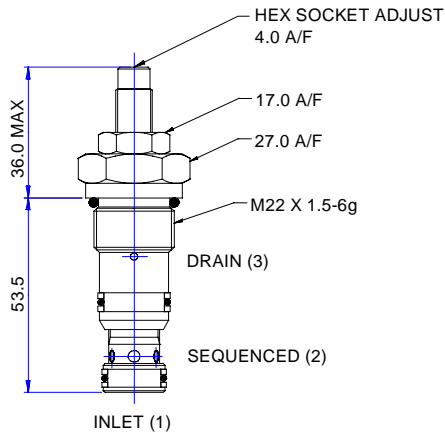
Figures based on: Oil Temp = 40°C Viscosity = 40 cSt

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 Add Suffix '377' for steel option
Mounting Position	Unrestricted
Cavity Number	CVA-22-06-0 (See Section 17)
Torque Cartridge into Cavity	60 Nm (44 lbs ft)
Weight	1PS60 0.16 kg (0.35 lbs) 1PS65 0.50 kg (1.10 lbs) 1PS66 1.10 kg (2.42 lbs)
Seal Kit Number	SK618 (Nitrile) SK618V (Viton)
Filtration	BS5540/4 Class 18/12 (25 micron nominal)
Operating Temp	-20°C to +90°C
Leakage	35 millilitres/min @ 280 bar
Nominal Viscosity Range	5 to 500 cSt

Integrated Hydraulics Limited Collins Road, Heathcote Industrial Estate, Warwick, CV34 6TF, England.
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CARTRIDGE ONLY

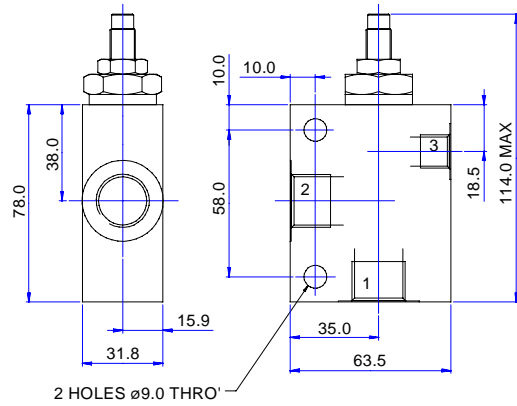
BASIC CODE: 1PS60



COMPLETE VALVE

3/8" 1/2" PORTS

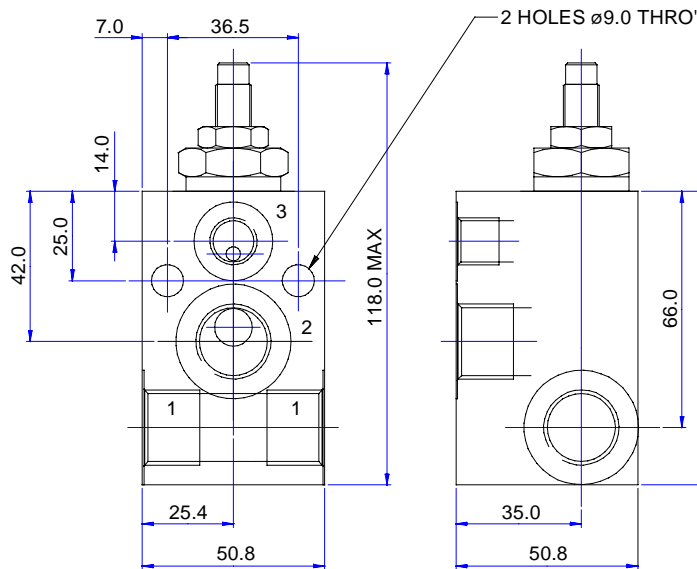
BASIC CODE: 1PS65



COMPLETE VALVE

3/8" 1/2" PORTS

BASIC CODE: 1PS66



Where measurements are critical request certified drawings

ORDERING CODE EXAMPLE

1PS P 3W 35 S**

Basic Code

Adjustment Means

P = Leakproof Screw Adjustment
R = Handknob Adjustment
G = Tamperproof Cap
(See page 4-102 for dimensions)

Port Sizes - Bodied Valves Only

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

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

2 = 7- 70 bar. Std setting 35 bar
20 = 10-200 bar. Std setting 100 bar
35 = 20-350 bar. Std setting 280 bar
Std setting made at 14 litres/min

We reserve the right to change specifications without notice

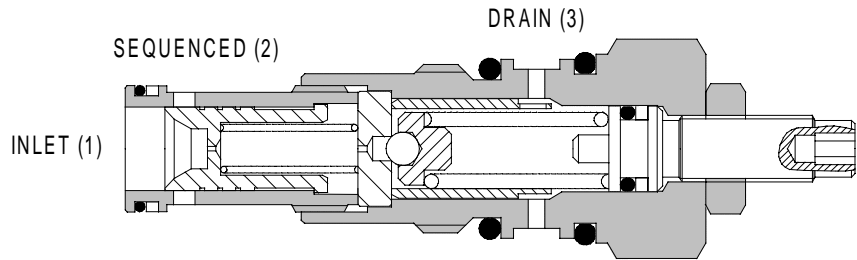
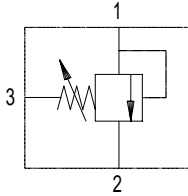


1PS SERIES SEQUENCE VALVE

PILOT OPERATED

1PS100

SLIDING SPOOL TYPE



4

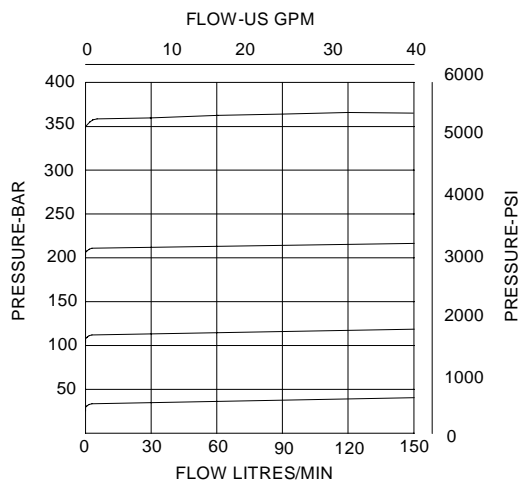
APPLICATION

Pilot operated sequence valves are ideal for systems where flows vary or the sequencing pressure is high. They provide ordered sequencing of two or more operations as with clamp and drill circuits. They can also be used as relief valves where the downstream pressure is high or changes during operation. By taking the drain line directly to tank, back pressure effects are negated.

OPERATION

As in the pilot operated relief valves, when the inlet pressure exceeds the valve setting, the pilot section opens causing a flow across the main spool orifice unbalancing it and subsequently moving it back against a light spring opening up the inlet to the outlet.

PRESSURE DROP



FEATURES

Match ground and honed hardened working parts give long, trouble-free life. Consistent stable operation providing low pressure rise due to increasing flow. Cartridge construction gives maximum flexibility in mounting. Available in bodies with or without free flow checks. Steel valve bodies available on request.

SPECIFICATIONS

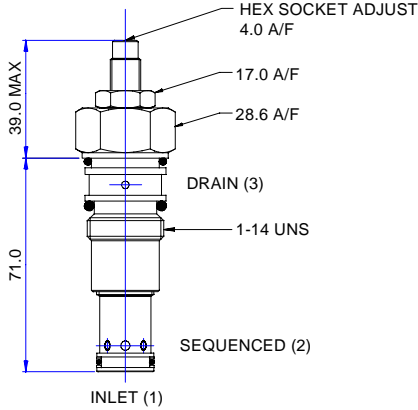
Figures based on: Oil Temp = 40°C Viscosity = 40 cSt

Rated Flow	150 litres/min (40 US GPM)
Max Setting	350 bar (5000 psi)
Cartridge Material	Working parts hardened and ground steel. External surfaces zinc plated
Body Material	Standard aluminium 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	1PS100 0.17 kg (0.37 lbs) 1PS145 0.56 kg (1.23 lbs) 1PS150 0.78 kg (1.72 lbs) 1PS155 1.05 kg (2.30 lbs)
Seal Kit Number	SK177 (Nitrile) SK177V (Viton)
Filtration	BS5540/4 Class 18/13 (25 micron nominal)
Operating Temp	-20°C to +90°C
Leakage	35 millilitres/min @ 280 bar
Nominal Viscosity Range	5 to 500 cSt

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CARTRIDGE ONLY

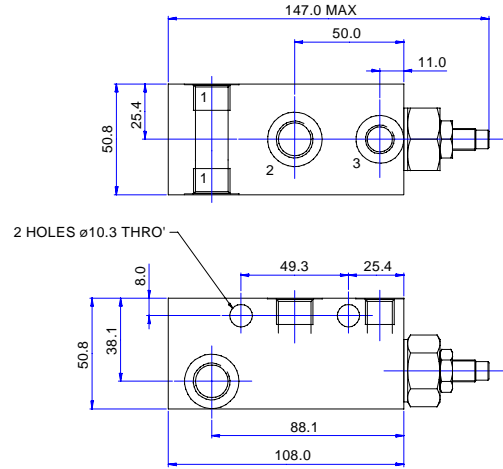
BASIC CODE: 1PS100



COMPLETE VALVE

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

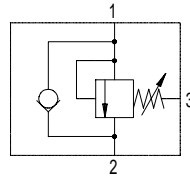
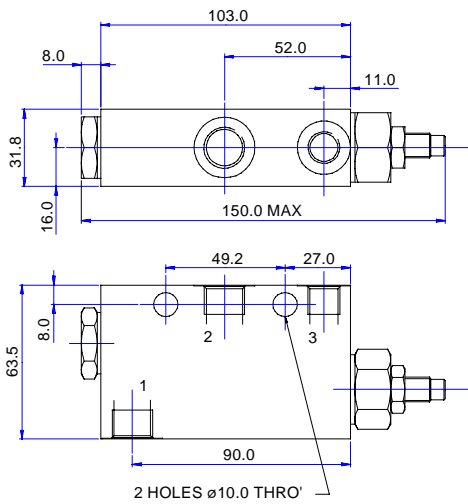
BASIC CODE: 1PS145 (WITHOUT BUILT-IN CHECK)



COMPLETE VALVE

3/8" PORTS

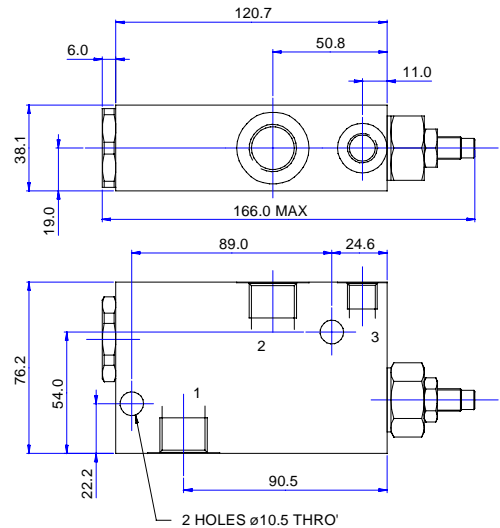
BASIC CODE: 1PS150 (WITH BUILT-IN CHECK)



COMPLETE VALVE

1/2" 3/4" PORTS

BASIC CODE: 1PS155 (WITH BUILT-IN CHECK)



Where measurements are critical request certified drawings

ORDERING CODE EXAMPLE

1PS* P 3W 35 S**

Basic Code

Adjustment Means

- P = Leakproof Screw Adjustment
 - R = Handknob Adjustment
 - G = Tamperproof Cap
- (See page 4-102 for dimensions)

Port Sizes - Bodied Valves Only

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

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

- 20 = 10-200 bar. Std setting 100 bar
 - 35 = 30-350 bar. Std setting 280 bar
- Std setting made at 14 litres/min

We reserve the right to change specifications without notice

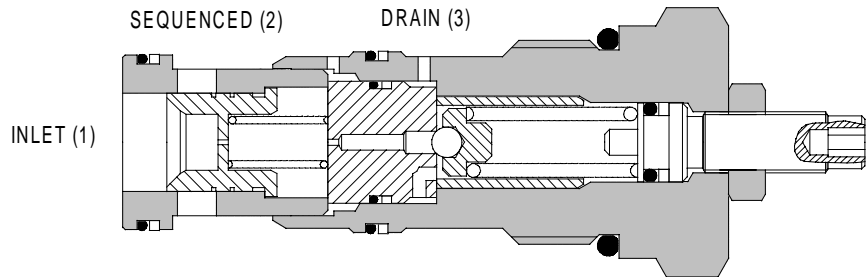
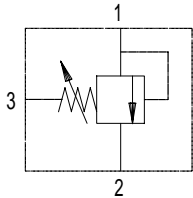


1PS SERIES SEQUENCE VALVE

PILOT OPERATED

1PS200

SLIDING SPOOL TYPE



4

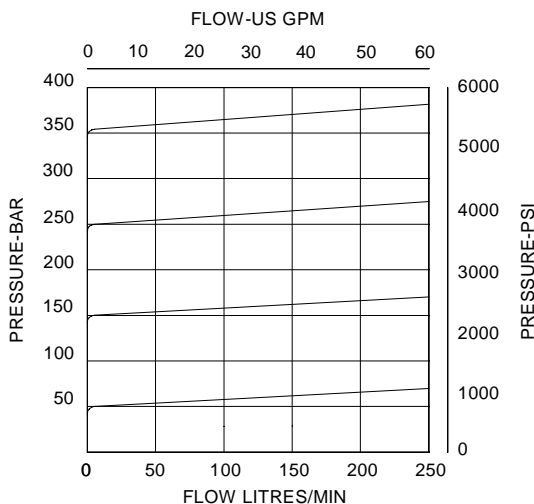
APPLICATION

Pilot operated sequence valves are ideal for systems where flows vary or the sequencing pressure is high. They provide ordered sequencing of two or more operations as with clamp and drill circuits. They can also be used as relief valves where the downstream pressure is high or changes during operation. By taking the drain line directly to tank, back pressure effects are negated.

OPERATION

As in the pilot operated relief valves, when the inlet pressure exceeds the valve setting, the pilot section opens causing a flow across the main spool orifice unbalancing it and subsequently moving it back against a light spring opening up the inlet to the outlet.

PRESSURE DROP



FEATURES

Match ground and honed hardened working parts give long, trouble-free life. Consistent stable operation providing low pressure rise due to increasing flow. Cartridge construction gives maximum flexibility in mounting. Available in bodies with or without free flow checks. Steel valve bodies available on request.

SPECIFICATIONS

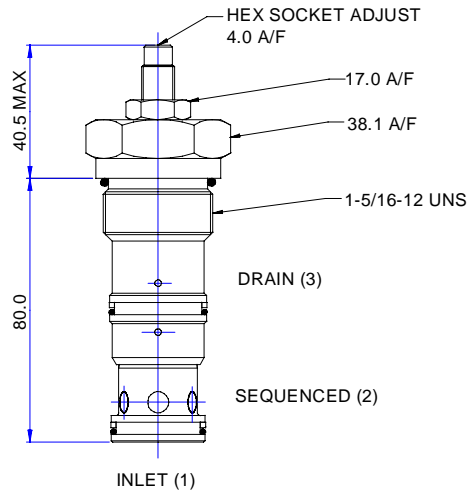
Figures based on: Oil Temp = 40°C Viscosity = 40 cSt

Rated Flow	250 litres/min (60 US GPM)
Max Setting	350 bar (5000 psi)
Cartridge Material	Working parts hardened and ground steel. External surfaces zinc plated
Body Material	Standard aluminium Add Suffix '377' for steel option
Mounting Position	Unrestricted
Cavity Number	A3145 (See Section 17)
Torque Cartridge into Cavity	100 Nm (76 lbs ft)
Weight	1PS200 0.72 kg (1.60 lbs) 1PS250 1.62 kg (3.60 lbs)
Seal Kit Number	SK173 (Nitrile) SK173V (Viton)
Filtration	BS5540/4 Class 18/13 (25 micron nominal)
Operating Temp	-20°C to +90°C
Leakage	35 millilitres/min @ 280 bar
Nominal Viscosity Range	5 to 500 cSt

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CARTRIDGE ONLY

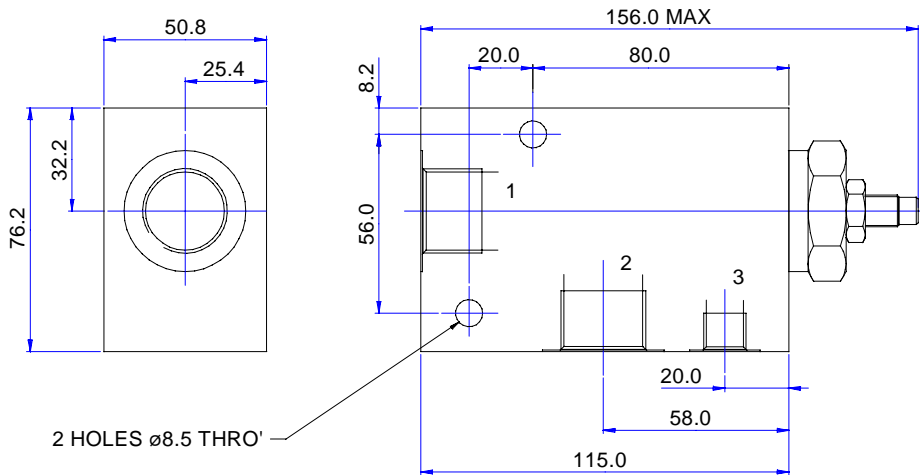
BASIC CODE: 1PS200



COMPLETE VALVE

3/4" 1" PORTS

BASIC CODE: 1PS250



Where measurements are critical request certified drawings

ORDERING CODE EXAMPLE

1PS* P 6W 35 S**

Basic Code

Adjustment Means

P = Leakproof Screw Adjustment
R = Handknob Adjustment
G = Tamperproof Cap
(See page 4-102 for dimensions)

Port Sizes - Bodied Valves Only

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

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

20 = 10-200 bar. Std setting 100 bar
35 = 30-350 bar. Std setting 210 bar
Std setting made at 14 litres/min

We reserve the right to change specifications without notice