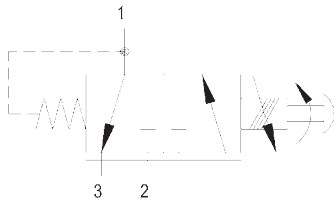
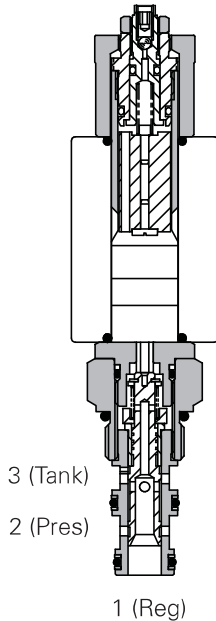


PPD22A - Proportional valve

Proportional reducing/relief, spool
20 L/min (5.4 USgpm) • 210 bar (3000 psi)



Sectional view



Description

This is a low pressure proportional direct acting pressure reducing valve with a reverse relief screw in cartridge valve. It is ideal for the control of compensators on a pump or brake and clutch systems on a transmission circuit.

Operation

In the de-energized position, pressure inlet port 2 is open to reduced pressure port 1, return port 3 is closed. As electrical current is increased, the setting of the valve increases allowing pressure at port 1 to increase. If the pressure at port 1 exceeds the setting of the valve, the spool will shift further and relieve to port 3.

Features

- High flow capacity with reduced space requirements.
- No dynamic seals.
- Standard valve bodies and common cavities.
- One-piece encapsulated coil with minimal amperage draw.
- Oil immersed armature solenoid.
- Various coil terminals and voltages.
- Coil interchangeability with valves of same series.
- Manual override, seal variations and other options available.
- Sealed coil arrangement to protect stem from corrosion.

Performance data

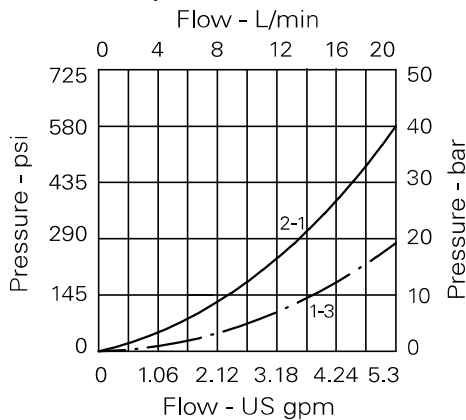
Ratings and specifications

Performance data is typical with fluid at 32 cST (150 SUS)

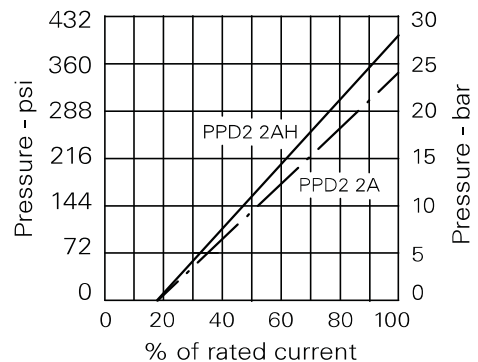
Max inlet pressure	210 bar (3000 psi)
Max regulated pressure	19 watt coil 24 bar, 29 watt coil 28 bar
Max flow	18.6 L/min (5 USgpm) 19 watt coil 20 L/min (5.4 USgpm) 29 watt coil
Hysteresis	16% max without PWM
Frequency	200 Hz
Dead band	19% approx
Response time	10 = 2-193 ms, 20 = 3-395 ms, 35 = 2-358 ms
Internal leakage	Up to 50 mL/min at 210 bar differential
Temperature range	-30° to 120°C (-22° to 248°F)
Cavity	A3531 (see Section M)
Torque cartridge into cavity	30 Nm (22 lbs ft)
Mounting position	Unrestricted
Fluids	All general purpose hydraulics fluids such as: MIL-H-5606, SAE 10, SAE 20, etc
Seal material	Standard nitrile with PTFE back up rings
Filtration	BS5540/4 Class 18/13 (25 micron or better)
Nominal viscosity range	15 to 250 cSt
Standard housing materials	Aluminium
Coil weight	.3 kg (.6 lbs)
Weight cartridge only	.25 kg (.55 lbs)
Seal kit	SK1119 (Nitrile) SK1119V (Viton®)
Coil part number	C16*-*/19 (PPD21A) C16*-*/29 (PPD21H)
Voltage available	12, 24 VDC

Viton is a registered trademark of E.I. DuPont

Pressure Drop



Performance curve

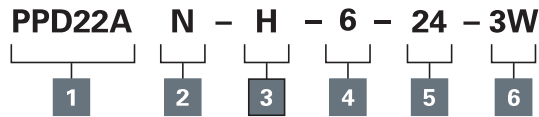


Where measurements are critical request certified drawings. We reserve the right to change specifications without notice.

PPD22A - Proportional valve

Proportional Reducing/Relief, Spool
20 L/min (5.4 USgpm) • 210 bar (3000 psi)

Model code



1 Function

PPD22A - Standard
PPD22H - Heavy duty

2 Seal material

N - Nitrile
V - Viton®

3 Coil termination

H - DIN43650
F - Flying Lead
DM - Deutsch moulded
Other terminations available on request.

4 Manual override

6 - Screw Type Manual Override

5 Voltage

12 - 12 VDC
24 - 24 VDC

6 Port size

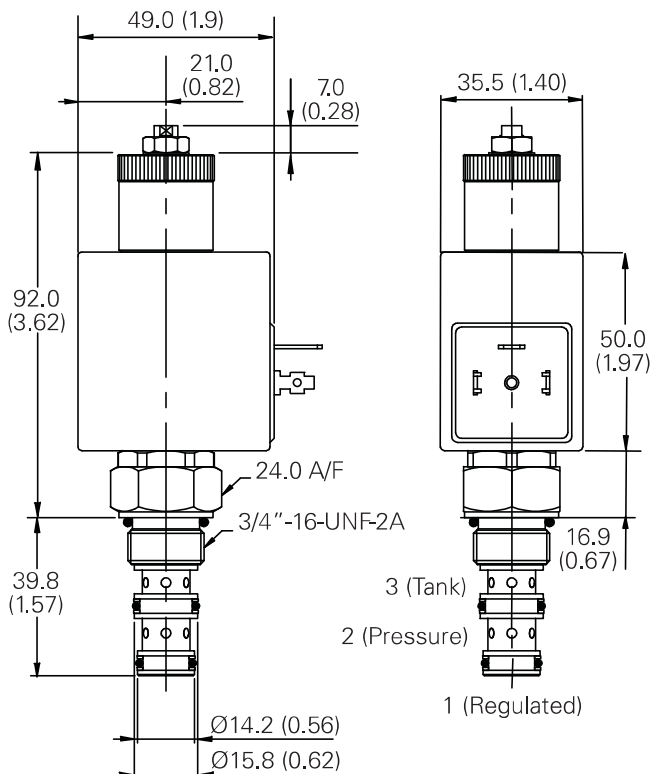
Code	Port size	Housing number
Aluminum single		
0	Cartridge only	
2W	1/4" BSP	A7724
3W	3/8" BSP	A6684
6T	3/8" SAE	B6516

See section J for housing details.

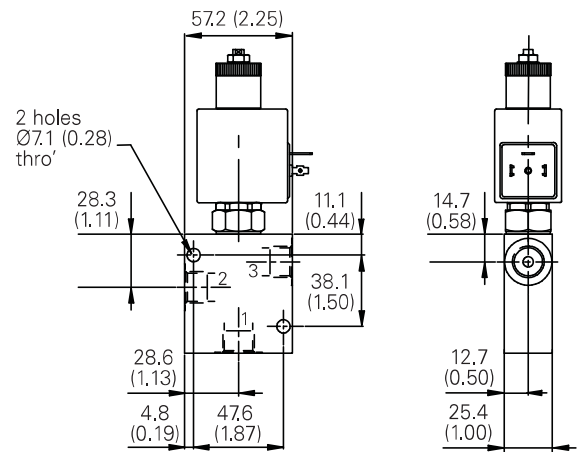
Dimensions

mm (inch)

Cartridge only



Installation drawing



Where measurements are critical request certified drawings. We reserve the right to change specifications without notice.