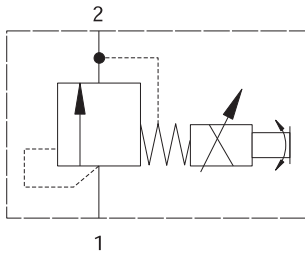


PDR21A - Proportional valve

Proportional relief
1.5 L/min (.3 USgpm) • 350 bar (5000 psi)



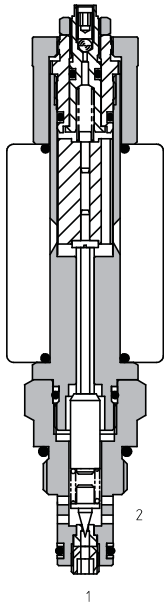
Operation

The poppet is held on the seat by a light spring. The force is increased by the application of magnetic force due to the increase in current. This increases the pressure required to lift the poppet of the seat thus controlling the pressure.

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

Sectional view



Performance data

Ratings and specifications

Performance data is typical with fluid at 21,8 cST (105 SUS) and 49°C (120°F)

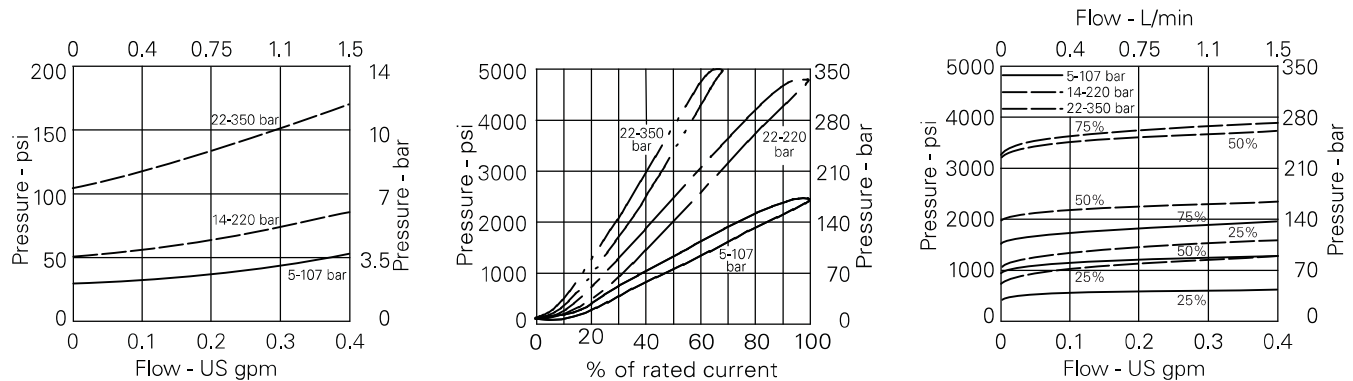
Max inlet pressure	350 bar (5000 psi)
Pressure range	10 = 5-107 bar (72-1550 psi), 20 = 14-220 bar (200-3200 psi), 35 = 22-350 bar (320-5000 psi)
Max press port 2	100 bar (1450 psi)
Max flow	1.5 L/min (.3 US GPM)
Hysteresis	<12.5% without PWM
Dead band	10% approx
Response time	10 = 2-193 ms, 20 = 3-395 ms, 35 = 2-358 ms
Internal leakage	<5 ml/min
Temperature range	-30° to 120°C (-22° to 248°F)
Cavity	A879 (see Section M)
Electrical data	See coil data sheet
Torque cartridge into cavity	40 Nm (29.5 lbs ft)
Mounting position	For best results mount below reservoir oil level. If this is not feasible mount horizontally
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 Model Code	C16-*/*/19
Coil Weight	.3 kg (.6 lbs)
Weight	.25 kg (.55 lbs)
Voltage available	12/24 VDC
Seal kit	SK1119 (Nitrile) SK1119V (Viton®)

Viton is a registered trademark of E.I. DuPont

Description

This is a proportional poppet style pilot relief cartridge. The pressure setting is directly proportional to changes in DC current input. The valve is ideal for the control of larger valves for the control of a pressure within a system.

Performance curves

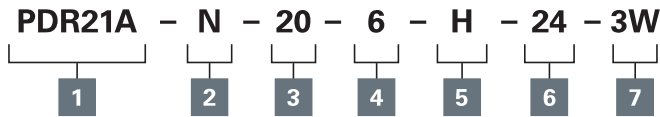


Where measurements are critical request certified drawings. We reserve the right to change specifications without notice.

PDR21A - Proportional valve

Proportional relief
1.5 L/min (.3 USgpm) • 350 bar (5000 psi)

Model code



1 Function

PDR21A - Normally open

2 Seal material

N - Nitrile
V - Viton

3 Pressure range

10 - 5 to 120 bar
20 - 10 to 240 bar

4 Manual override

6 - Screw

5 Coil termination

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

6 Voltage

12 - 12 VDC
24 - 24 VDC

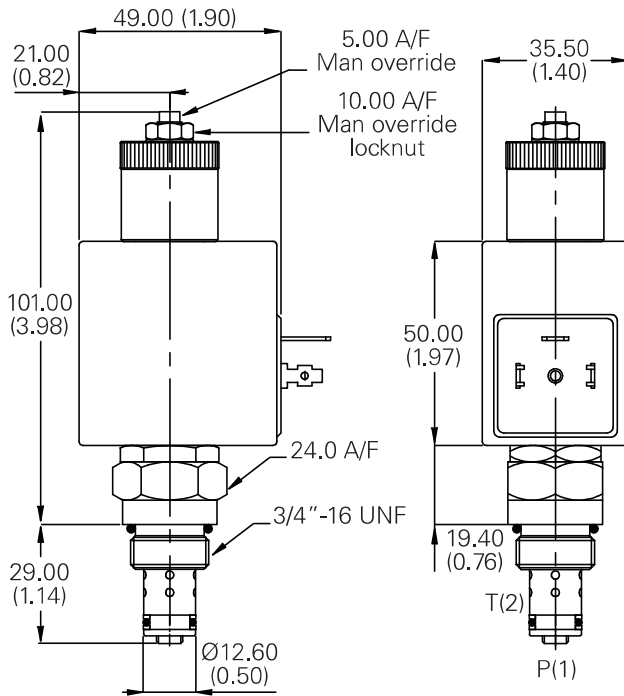
7 Port size

Code	Port size	Housing number	
		Aluminum	Steel
0	Cartridge only		
2W	1/4" BSP	A1485	A14128
3W	3/8" BSP	A1043	A14175
4T	1/4" SAE	A14842	-
6T	3/8" SAE	A15676	A14843

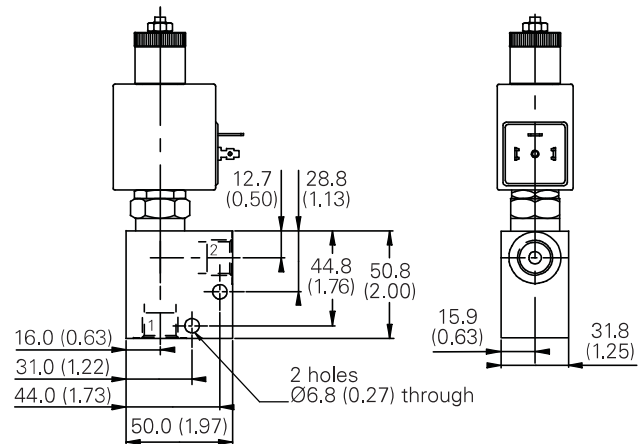
Dimensions

mm (inch)

Cartridge only



Installation drawing



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