

# Proportional Valves

## PSV10-34-02

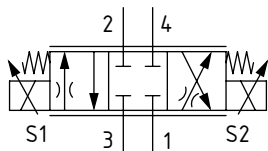
Proportional Directional Valve, 4-way, 3-position, Spool Type, Non-Compensated

250 bar [3600 psi] • 22 l/min [5.8 US gpm]

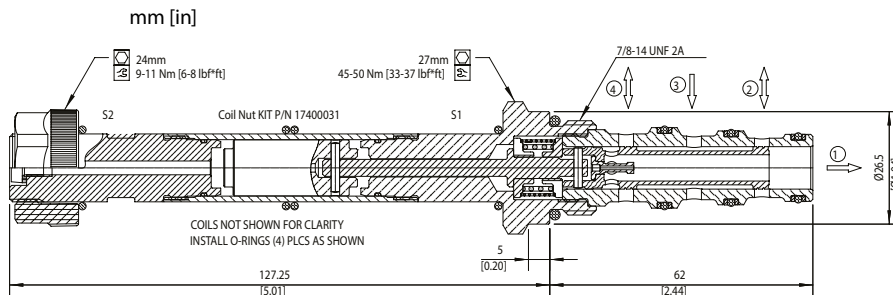
### DESCRIPTION AND OPERATION

This is a 4-way, 3-position, spool type, non-compensated proportional directional valve. In its de-energized condition, all ports are blocked. Increasing the current to the bottom coil will cause the spool to move, proportionally opening flow from port 3 to 2 with return flow passing from port 4 to 1. Increasing the current to the top coil will proportionally open flow from port 3 to 4 with return flow passing from port 2 to 1. Using this as a variable orifice in conjunction with a compensator, the valve will provide a compensated flow to an actuator in both directions. Port 1 should be used as the tank port with a maximum back pressure of 150 bar. For applications with unequal flows, the highest flow should be connected to Port 2. For optimal performance, install with the solenoid valve below the tank oil level in the horizontal or inverted position, reducing the chance for trapped air in the valve.

### SCHEMATIC



### DIMENSIONS



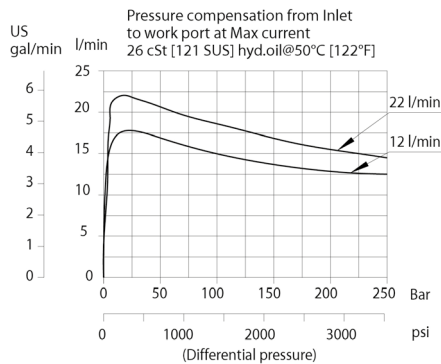
### PERFORMANCE DATA

<b>Rated pressure*</b>	<b>250 bar [3600 psi]</b>
<b>Rated flow @ 10 bar [145 psi]</b>	<b>22 l/min [5.8 US gpm]</b>
<b>Maximum Hysteresis</b>	4%
<b>Threshold current</b>	0.5 A [12 VDC coil] 0.25 A [24 VDC coil]
<b>Maximum control current</b>	1.5 A [12 VDC coil] 0.8 A [24 VDC coil]
<b>Coil Options</b>	M16, R16
<b>Weight</b>	0.77 kg [1.7 lbs]
<b>Cavity</b>	SDC10-4

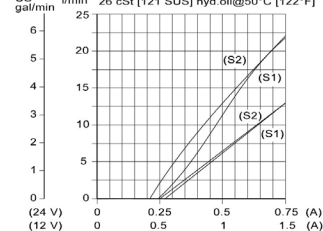
\*Rated Pressure based on NFPA fatigue test standards (at 1 Million Cycles)

### PERFORMANCE CURVES

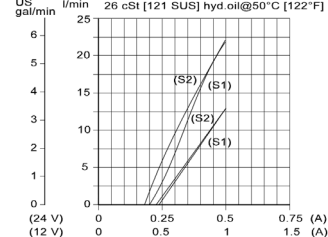
#### Pressure drop



Operating curves with M16 coil and plastic nut  
Pressure drop of circuit 10 Bar.  
26 cSt [121 SUS] hyd.oil@50°C [122°F]



Operating curves with R16 coil and steel nut  
Pressure drop of circuit 10 Bar.  
26 cSt [121 SUS] hyd.oil@50°C [122°F]



### MODEL CODE

**PSV10 - 34 - 02 - 12D - DE - 22 - PAP - B - 00**

#### Coil Voltage

Standard Coil Code	Robust Coil Code	Coil Voltage
00	R00	No Coil, nut included*
12D	R12D	12 VDC
24D	R24D	24 VDC

\*Standard Coil - Plastic coil nut and o-rings (p/n 17400031)

\*Robust Coil - Steel coil nut and no o-rings (p/n 173804910)

#### Rated Flow @ 10 bar [145 psi]

Code	Flow
12	12 l/min (3.2 US gpm)
22	22 l/min (5.8 US gpm)

#### Connector Type

Standard Coil Code	Robust Coil Code	Connector Type
00	R00	No Coil
AJ		Amp Junior
AS	AS	AMP SuperSeal 1.5
DE	DE	Deutsch
FL	FL	Flying Leads
DN		DIN 43650

#### Manual Override Option

**Omit** - No override  
**PAP** - Push and Pull

#### Housing

Code	Ports & Material	Housing Model Code
00	No Housing	
L3B	AL 3/8 BSP	SDC10-4-L3B
L4B	AL, 1/2 BSP	SDC10-4-L4B
6S	AL #6 SAE	CP10-4-6S
8S	AL, #8 SAE	CP10-4-8S

\* Aluminum bodies are to be used for pressures less than 210 bar [3000 psi].  
\* Additional housings available

#### Seal Option

Code	Seal kit
<b>B</b> - Buna - N	354001919
<b>V</b> - Viton	354002019