



## OPERATION

This is a proportional, non-compensated, 3 position 4 way, directional flow control solenoid valve, with closed-center spool.

## APPLICATIONS

This is an electro-proportional directional control using a 3-Position, 4-Way design for directional control of hydraulic cylinders and motors. For load-independent flow control, apply with a pressure compensator, like CP700-4 (see Example Circuit). Port 1 should be used as the tank port, with a maximum back-pressure of 150 bar. The highest return flow coming from a cylinder should be connected to Port 2.

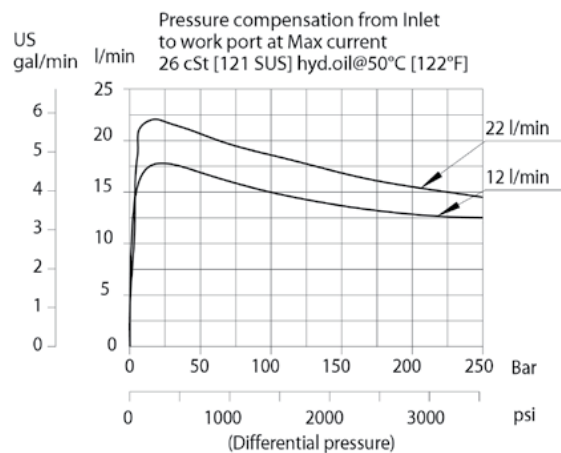
Use the available Comatrol Adapter Block (SDC10-4-D03 or SC10-4-D03-PC) to help test and replace proportional CETOP D03 - available in compensated or non-compensated. Select the robust coil for those extreme environmental conditions - voltage extremes, high temperature, shock & vibration, chemicals, and/or water ingress.

Note: For optimal performance install with the solenoid valve below the tank oil level in the horizontal position, reducing the chance for trapped air in the valve.

## SPECIFICATIONS

<b>Rated Pressure*</b>	250 bar [3600 psi]
<b>Maximum Rated Flow at 10 bar [145 psi]</b>	22 l/min [6 US gal/min]
<b>Weight including coil</b>	0.77 kg [1.7 lbs]
<b>Hysteresis</b>	4% maximum
<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>Cavity</b>	SDC10-4
<b>Standard Coil</b>	M16 26 Watt
<b>Robust Coil</b>	R16 20 Watt Robust Nut P/N 173804910 (no coil O-rings needed)

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

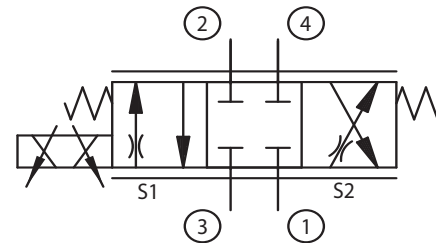


Shown with standard coils,  
DIN connectors



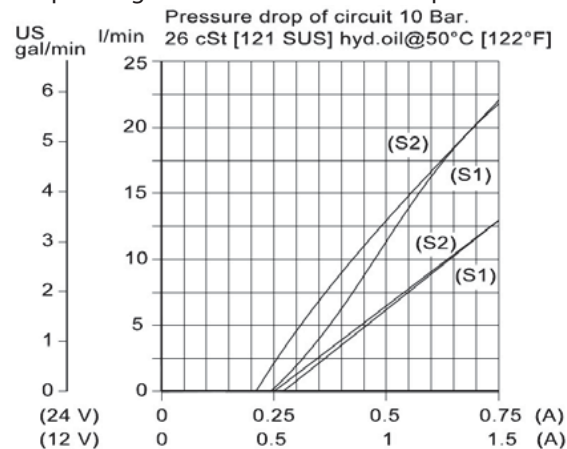
Shown with Robust Coil

## Schematic

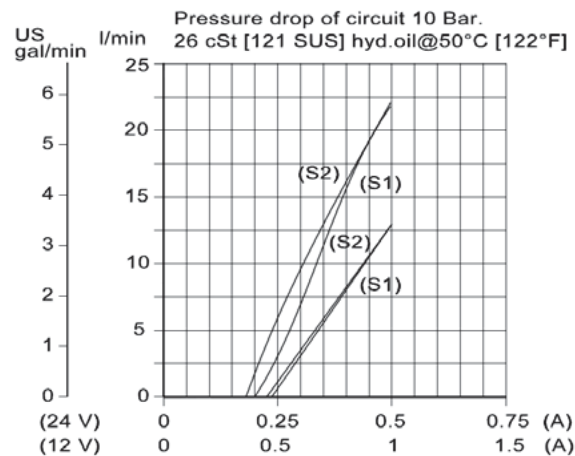


## Performance Curves

Operating curves with M16 coil and plastic nut



Operating curves with R16 coil and steel nut





# Proportional Valves Catalog

## Proportional Directional

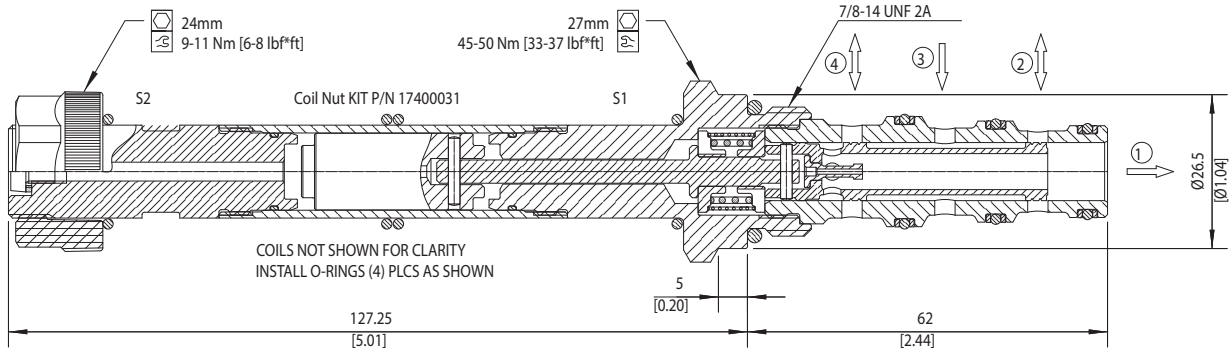
### PSV10-34-02



### DIMENSIONS

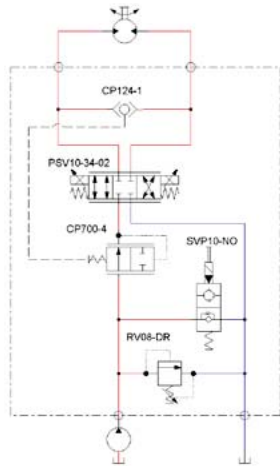
mm [in]

Cross-sectional view

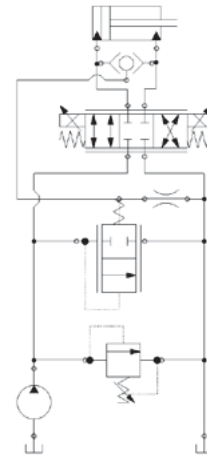


### EXAMPLE CIRCUITS

Compensated Bi-directional Proportional Flow Control



Double Acting Cylinder with Proportional Speed Control, Unloading Valve and Circuit Relief



### ORDERING INFORMATION

## PSV 10 - 34 - 02 - 12D - DE - 22 - B - 00

<p><b>Proportional Solenoid Valve, Non-compensated Flow Control</b></p> <p><b>Cavity Size:</b> 10 = Size 10</p> <p><b>Type:</b> 34 = 3 Position, 4 Way</p> <p><b>Schematic:</b> 02 = Closed Center Spool</p>	<p><b>Coil Voltage:</b> 00 = No Coil 12D = 12 VDC 24D = 24 VDC R12D = 12 VDC R-Coil R24D = 24 VDC R-Coil</p>	<p><b>Coil Termination</b> 00 = No coil, with Nut AJ = AMP Junior* AS = AMP SuperSeal 1.5 DE = Deutsch DN = DIN 46650* FL = Flying Leads <small>*These terminations are not available on robust coil (R12D, R24D)</small></p>	<p><b>Housing and Ports:</b> 00 = No Housing L3B = AL 3/8 BSP L4B = AL, 1/2 BSP 6S = AL #6 SAE 8S = AL, #8 SAE Other housings available</p> <p><b>Seals:</b> B = Buna-N V = Viton</p>	<p><b>Housing P/N:</b> No Housing SDC10-4-L-3B SDC10-4-L-4B CP10-4-6S CP10-4-8S</p> <p><b>Seal Kit</b> 354001919 354002019</p> <p><b>Max Regulated Flow:</b> 12 = 12 LPM (3 GPM) 22 = 22 LPM (6 GPM)</p>
--	--	---	---	--

Proportional Valves  
PSV10-34-02