Solenoid Valves Technical Information

2-Way Poppet

SVP12-NCR

OPERATION

This is a normally-closed, pilot-operated, poppet-type 12-size solenoid valve with free reverse flow. When de-energized, the valve acts as a check valve, allowing flow from port 1 to port 2, and blocking flow from port 2 to port 1. When energized, the valve's poppet is shifted and allows flow from port 2 to port 1, and from port 1 to port 2.



Shown with Robust Coil, Deutsch Connector

APPLICATIONS

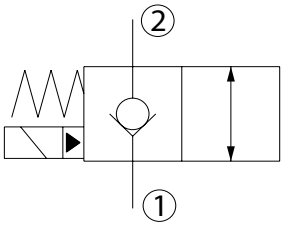
This valve is designed for low leakage applications and can be used in a circuit with a single acting cylinder to control motion, provide load holding or as a general purpose diverter or dump valve. This solenoid valve is a technical replacement for CP501-3.

SPECIFICATIONS

Rated pressure*	230 bar [3300 psi]*
Rated flow at 7 bar [100 psi]	114 l/min [30 US gal/min]
Leakage	6 drops/min @ Rated pressure
Weight	0.43 kg [0.95 lb]
Cavity	**CP12-2**
Standard Coil	**M16** 26 Watt
Robust Coil	**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).

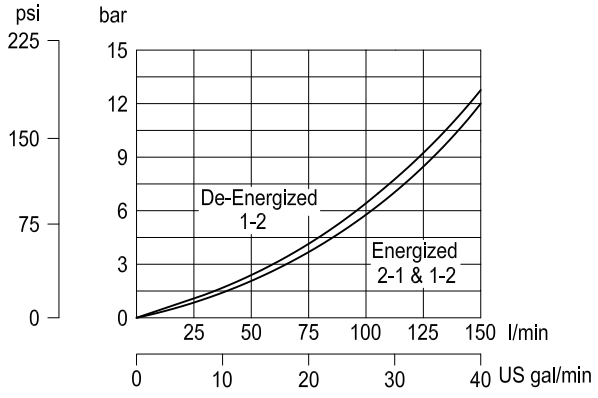
SCHEMATIC



PERFORMANCE CURVES

Pressure Drop

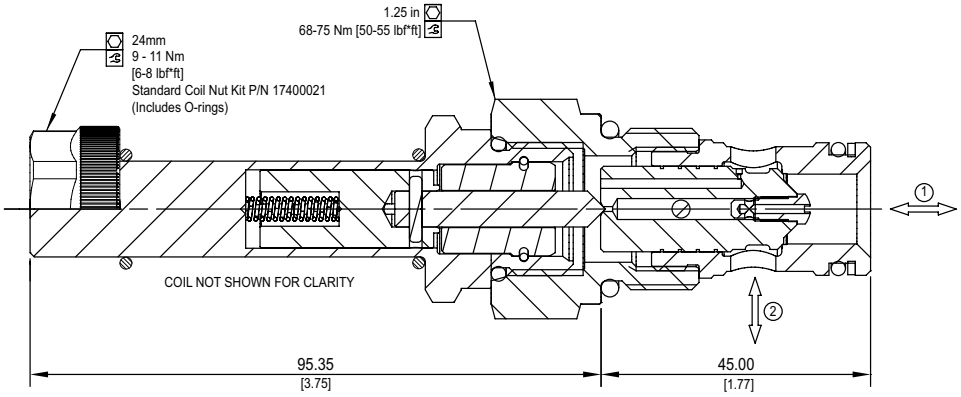
26 cSt [121 SUS] hyd.oil at 50C [122F]



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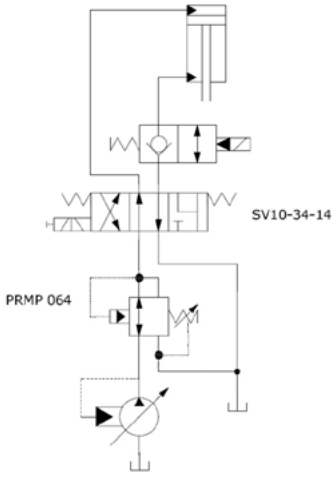
DIMENSIONS
mm [in]

Cross-sectional view

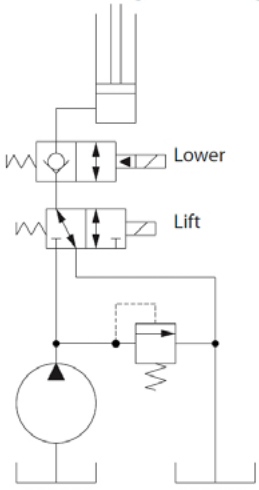


EXAMPLE CIRCUITS

Height Control with Float Option



Lift, hold, & lower single acting cylinder



P103 102E

ORDERING INFORMATION

SVP12 - NCR - 12D - DE - XC - B - 00

Solenoid Valve
Normally-Closed, Pilot Operated,
Free Reverse Flow, 12 Size,
Poppet Type

Coil Voltage

Description	Standard Coil Code	Robust Coil Code
No Coil, with nut*	00	R00
10 VDC	10D	R10D
12 VDC	12D	R12D
20 VDC	20D	R20D
24 VDC	24D	R24D
110 VAC**	110A	-
220 VAC**	220A	-

*Standard coil - plastic nut and O-rings
R-coil -- steel nut P/N 173804910
(no coil O-rings needed)
**DIN only - external rectifier needed

Coil Termination

Type	Standard Coil Code	IP Rating	Robust Coil Code	IP Rating
No Coil	00	-	R00	-
Amp Junior	AJ	IP67	-	-
Amp Junior with Diode	AJD	IP67	-	-
AMP SuperSeal 1.5	AS	IP67	AS	IP69K
AMP SuperSeal with Diode	ASD	IP67	ASDB	IP69K
Deutsch	DE	IP69K	DE	IP69K
Desutch with Diode	DED	IP69K	DEDB	IP69K
Flying Leads	FL	IP65	FL	IP69K
Flying Leads with Diode	FLD	IP65	FLDB	IP69K
DIN 43650	DN	IP65	-	-
Metri-Pack 150 Type 2	-	-	M3	IP69K
Metri-Pack 150 with Diode	-	-	M3DB	IP69K

Bodies

Code	Ports & Material	Body Nomenclature
00	Cartridge Only	No Body
10S	#10 SAE, AL	CP12-2-10S
S10S	#10 SAE, DUCTILE	CP12-2-S10S
12S	#12 SAE, AL	CP12-2-12S
S12S	#12 SAE, DUCTILE	CP12-2-S12S
4B	1/2 BSP, AL	CP12-2-4B
S4B	1/2 BSP, DUCTILE	CP12-2-S4B
6B	3/4 BSP, AL	CP12-2-6B
S6B	3/4 BSP, DUCTILE	CP12-2-S6B

**Aluminum bodies are to be used for pressures less than 210 bar (3,000 PSI)

Seal Option

Code	Material	Seal Kits
B	Buna	120017
V	Viton	120018

Manual Override

Code	Description
XC	No Override