Solenoid Valves Technical Information
2-Way Poppet
SVP20-NCR

OPERATION
This is a normally-closed, pilot-operated, poppet-type 20-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

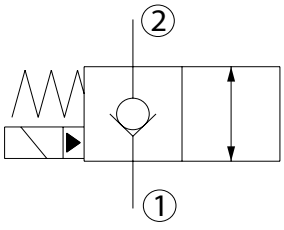
APPLICATIONS
This valve is designed for low leakage applications and can be used in a circuit with a single acting cylinder to control motion, provide load holding or as a general purpose diverter or dump valve. This solenoid valve is a technical replacement for CP503-3.

SPECIFICATIONS

Rated pressure*	230 bar [3300 psi]*
Rated flow at 7 bar [100 psi]	227 l/min [60 US gal/min]
Leakage	6 drops/min @ Rated pressure
Weight	1.04 kg [2.29 lb]
Cavity	**SDC20-2**
Standard Coil	**M16** 26 Watt
Robust Coil	**R16** 20 Watt Robust Nut P/N **173804910** (no coil O-rings needed)

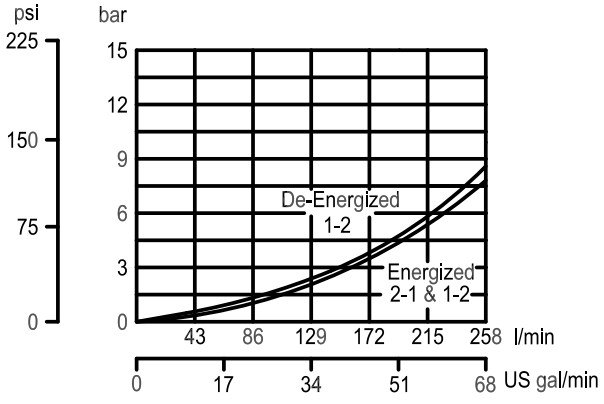
* Rated Pressure based on NFPA fatigue test standards (at 1 Million Cycles).

SCHEMATIC



PERFORMANCE CURVES

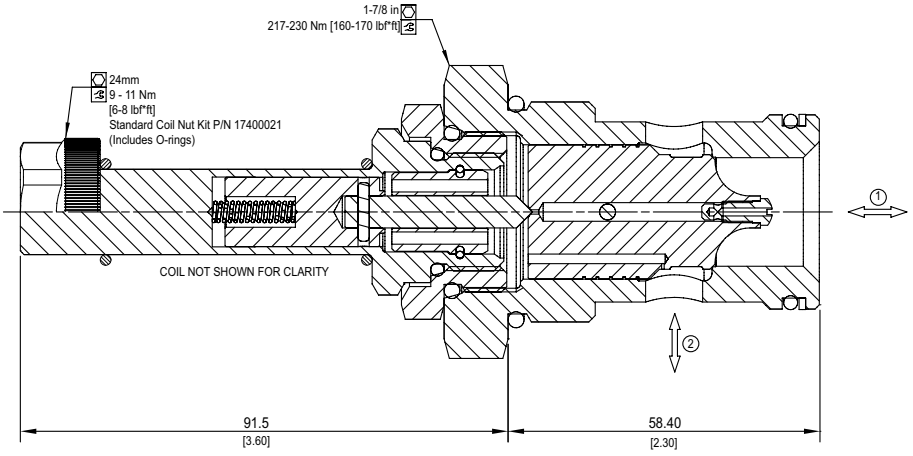
Pressure Drop
26 cSt [121 SUS] hyd.oil at 50□C [122 □F]



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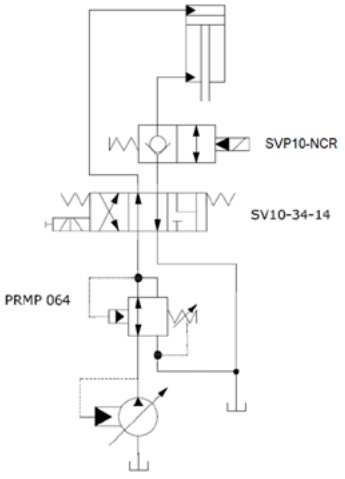
DIMENSIONS
mm [in]

Cross-sectional view

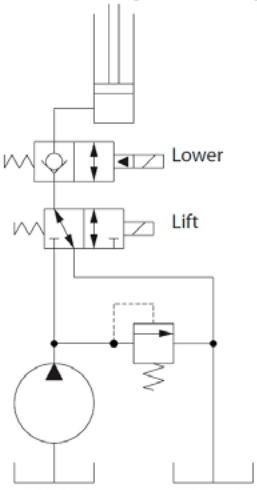


EXAMPLE CIRCUITS

Height Control with Float Option



Lift, hold, & lower single acting cylinder



P103 102E

ORDERING INFORMATION

SVP20 - NCR - 12D - DE - XC - B - 00

Solenoid Valve
Normally-Closed, Pilot Operated,
Free Reverse Flow, 20 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
16S	#16 SAE, AL	SCD20-2-16S
S16S	#16 SAE, DUCTILE	SDC20-2-S16S
20S	#20 SAE, AL	SDC20-2-6B
S20S	#20 SAE, DUCTILE	SDC20-2-S6B
8B	1 BSP, AL	SDC20-2-8B
S8B	1 BSP, DUCTILE	SDC20-2-S8B
10B	1 1/4 BSP, AL	SDC20-2-10B
S10B	1 1/4 BSP, DUCTILE	SDC20-2-S10B

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

Seal Option

Code	Material	Seal Kits
B	Buna	120011
V	Viton	120012

Manual Override

Code	Description
XC	No Override