



Solenoid Valves Technical Information

4 Way, 3 Position Spool

SV10-35-05



OPERATION

This is a direct acting, 3-position, 5-way spool type solenoid valve. When de-energized, the SV10-35-05 blocks flow at ports 5 and 1, while allowing flow from ports 2 and 4 to port 3. When coil S1 is energized, the spool shifts to allow flow from port 5 to port 4 (with load sense reference to port 1) and port 2 to port 3. When coil S2 is energized, the spool shifts to allow flow from port 5 to port 2 (with load sense reference to port 1), and from port 4 to port 3. The SV10-35-05 comes standard with a one-direction, push-pin manual override. When the manual override is pushed, the spool shifts following the logic of energizing S2.



Shown with Standard Coils,
Deutsch Connectors

APPLICATIONS

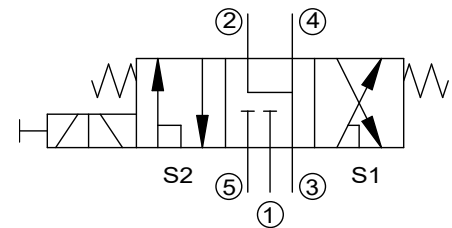
The SV10-35 family is designed to control the direction of flow in load sensing systems. Having the load sense port integrated into the spool eliminates the need for check and/or shuttle valves between the SV10-35 and the work function. It is recommended to apply an orifice or flow regulator to bleed down the signal, if this feature is not included in the pump. Apply a check or shuttle valve at port 1 for your load sense signal. The 05-spool center provides a path to tank. In load holding applications, pilot to open check or counter balance valves are recommended. When controlling a cylinder, the base or cap end can be connected to either ports 2 or 4, providing symmetrical metering. For use with the PAP override, load sense pressure must be limited to 150 bar.

SPECIFICATIONS

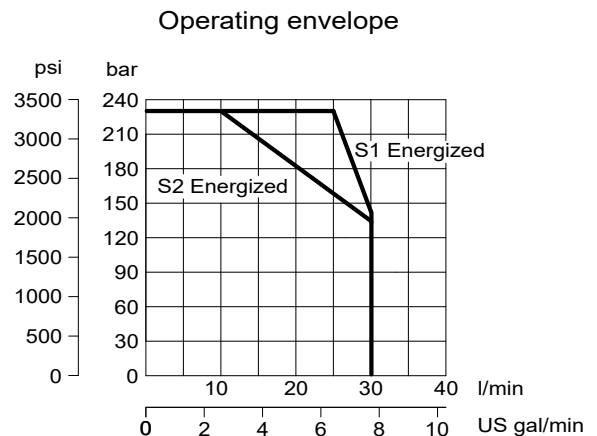
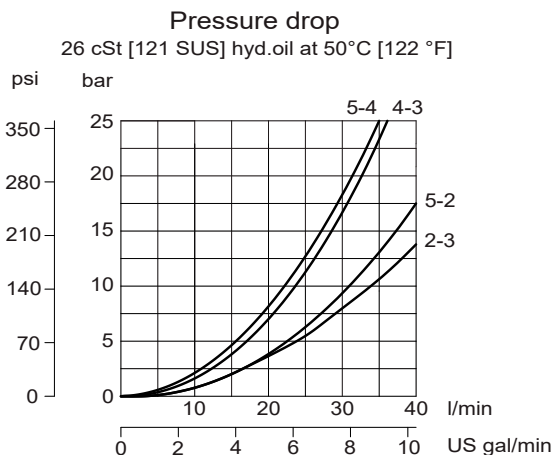
Rated Pressure*	230 bar [3330 psi]
Maximum Rated Flow at 7 bar [100 psi]	18 l/min [4.8 US gal/min]
Weight including coil	0.9 kg [1.98 lbs]
Cavity	SDC10-5
Standard Coil	M16 26 Watt
Robust Coil	R16 20 Watt Robust Nut P/N 173804910 (no coil O-rings needed)

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

SCHEMATIC



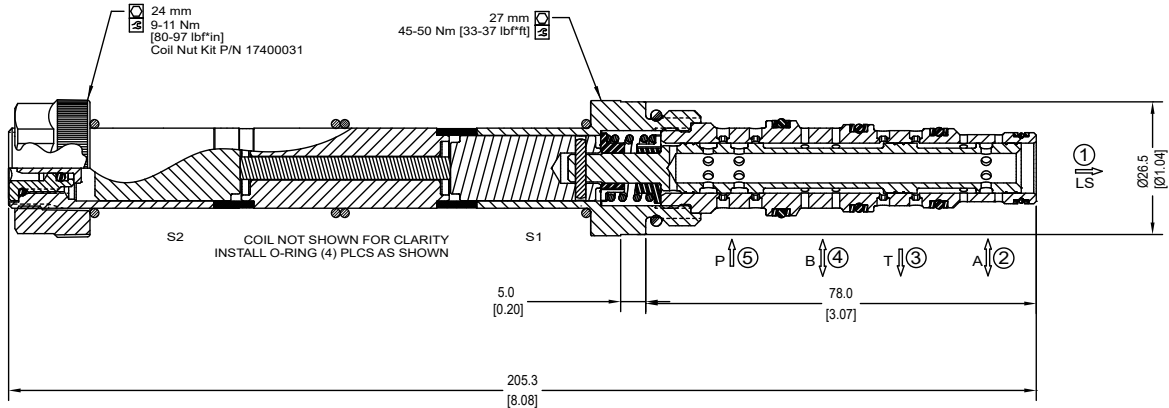
PERFORMANCE CURVES



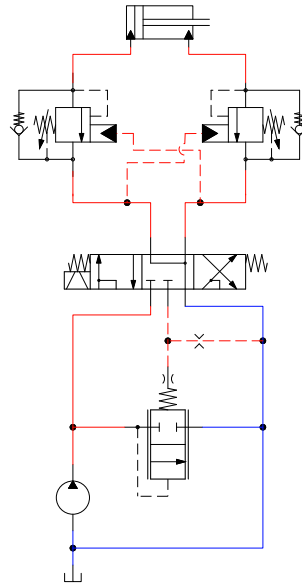
DIMENSIONS

mm [in]

Cross-sectional view



EXAMPLE CIRCUITS



ORDERING INFORMATION

SV10-35-05-12D-DE-PB-B-00

Solenoid Valve
3 position, 5 way, 10-Size.

Coil voltage	Standard Coil	Robust Coil
00 = No Coil	00	00
12 VDC	12D	R12D
24 VDC	24D	R24D

Coil termination

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

Housings

Code	Ports & Material	Body Nomenclature
00	Cartridge Only	No Body
6S	#6 SAE, AL	SDC10-5-6S
8S	#8 SAE, AL	SDC10-5-8S
S8S	#8 SAE, Steel	SDC10-5-S8S
L3B	3/8 BSP, AL	SDC10-5-L3B
L4B	1/2 BSP, AL	SDC10-5-L4B
S4B	1/2 BSP, Steel	SDC10-5-S4B

Seals

Code	Material	Seal kit
B	Buna-N	11192395
V	Viton	11192396

Manual Override

Code	Manual Override
Omit	Push Pin (Standard)
PB	Push Button
SPS	Screw Style (Push-Type Valve)
OPS	Push Pin Nut for Protection & Actuation
PAT	Push and Twist
PAP	Push and Pull