OPERATION

This is an 08-size, 3-Position, 4-Way, spool type solenoid valve. When de-energized, the SV08-34-02 is closed center, blocking all flow. When coil S1 is energized, the spool shifts to allow flow from port 3 to port 4, and from port 2 to 1. When coil S2 is energized, the spool shifts to allow flow from port 3 to port 2, and from port 4 to port 1. Follow the "Operating Envelope" limits to ensure shifting of the valve during operation. The HSV08-34-02 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 Robust Coils,
Metri-Pack Type 2 Connectors

APPLICATIONS

These valves are primarily used in mobile and industrial applications for controlling the direction of the flow in a circuit. Solenoid spool-type valves are direct acting and respond quickly to coil voltage input. Spool valves will have some leakage due to spool clearance, so if your application requires no leakage at the working port(s), apply a low leakage poppet valve(s), like PO check valve, counterbalance valve, etc., in addition to this solenoid valve. This valve comes standard with a manual override (one-direction, push-pin style). This valve can operate with an inlet pressure of 315 bar on port 3 for 500,000 cycles. Port 1 is not intended for use as inlet (Tank only).
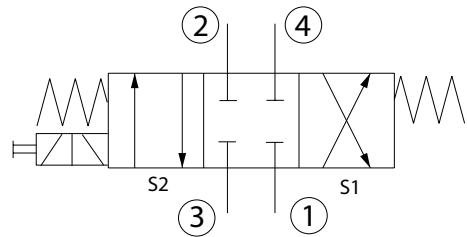
SPECIFICATIONS

Rated pressure*	230 bar [3300 psi]**
Rated flow at 7 bar [100 psi]	10 l/min [3 US gal/min]
Weight	0.55 kg [1.21 lb]
Cavity	**SDC08-4**
Standard Coil	**M13** 20 Watt
Robust Coil	**R13** 16 Watt Robust Nut P/N **173800539** (no coil O-rings needed)

* Rated Pressure based on NFPA fatigue test standards (at 1 Million Cycles).
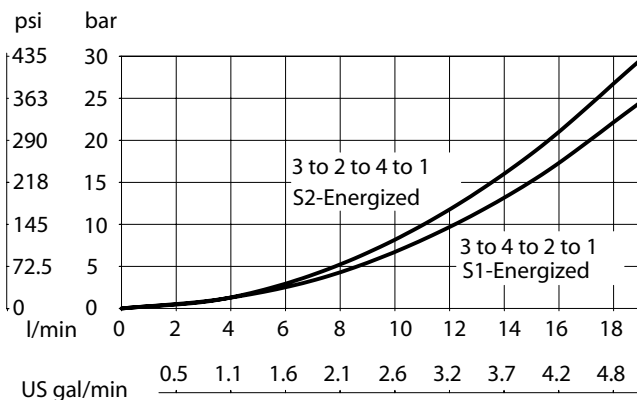
** See 315 bar pressure rating note on page 10.

SCHEMATIC

PERFORMANCE CURVES
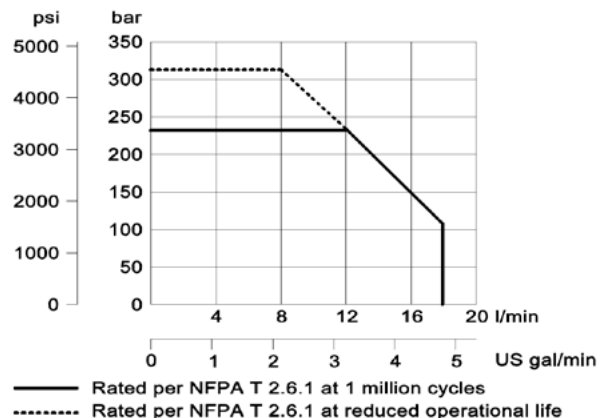
Pressure drop
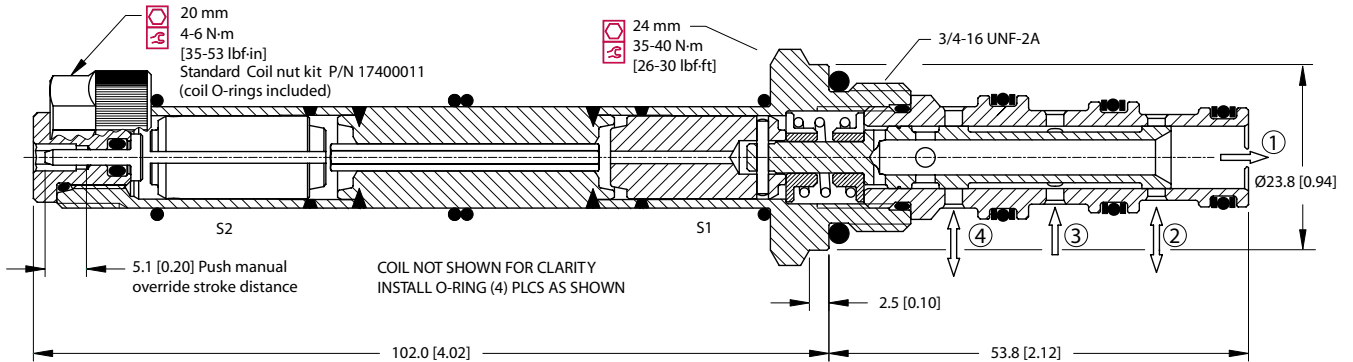33 cSt [154 SUS] hyd.oil @ 38°C [100° F]

3 to 2 to 4 to 1
S2-Energized

3 to 4 to 2 to 1
S1-Energized

Operating envelope

Rated per NFPA T 2.6.1 at 1 million cycles
Rated per NFPA T 2.6.1 at reduced operational life

DIMENSIONS

mm [in]

Cross-sectional view

20 mm
4-6 N·m
[35-53 lbf·in]
Standard Coil nut kit P/N 17400011
(coil O-rings included)

24 mm
35-40 N·m
[26-30 lbf·ft]

3/4-16 UNF-2A

Ø23.8 [0.94]

S2

S1

5.1 [0.20] Push manual
override stroke distance

COIL NOT SHOWN FOR CLARITY
INSTALL O-RING (4) PLCS AS SHOWN

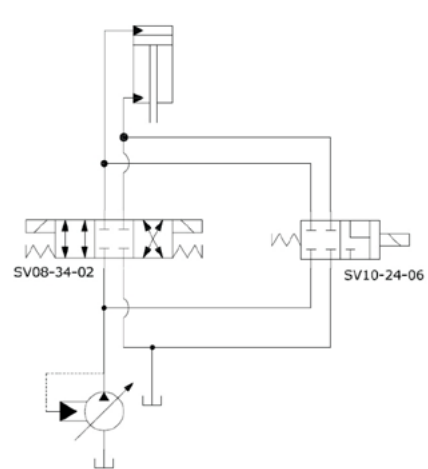2.5 [0.10]

102.0 [4.02]

53.8 [2.12]

EXAMPLE CIRCUITS

Double Acting Cylinder with Unloading Valve
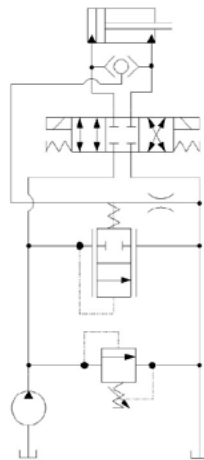
Fourth Position Float

SV08-34-02

SV10-24-06

ORDERING INFORMATION

SV08 - 34 - 02 - 12D - DE - PB - B - 00

**Solenoid Valve, 08
Size Cavity**

34:
3 Position, 4 Way, Spool Type

02:
**Schematic: Closed
Center**

Code	Body and Ports	Body Nomenclature
00	Cartridge Only	No Body
4S	#4 SAE, AL	CP08-4-4S
6S	#6 SAE, AL	CP08-4-6S
S6S	#6 SAE, Steel	CP08-4-S6S
L2B	1/4 BSP, AL	SDC08-4-L2B
S3B	3/8 BPS, Steel	CP08-4-S3B

Seal Code	Material	Seal Kits
B	Buna-N	354003319
V	Viton	354003919

Code	Manual Override
Omit	Push Pin (Standard)
PB	Push Button
SPS	Screw Style (Push-Type Valve)
PAP	Push and Pull

Coil Voltage	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 173800539
(no coil O-rings needed)
** DIN Only - external rectifier needed

Coil Termination	Standard Coil Code	IP Rating	Robust Coil Code	IP Rating
No Coil	00	-	00	-
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	IP67	DE	IP69K
Deutsch with Diode	DED	IP67	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