ENGINEERING TOMORROW

Solenoid Valves Technical Information

4-Way, 3-Position Spool

HSV10-34-05

OPERATION

Solenoid Valve, Spool Type, 3-Position, 4-Way, 10-size. When de-energized, the SV10-34-05 is float-center, allowing flow between ports 1, 2 and 4, while port 3 is blocked. 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. The HSV10-34-05 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. Follow the "Operating Envelope" limits to ensure shifting of the valve during operation.



Shown with High Pressure Coils, Deutsch Connectors

APPLICATIONS

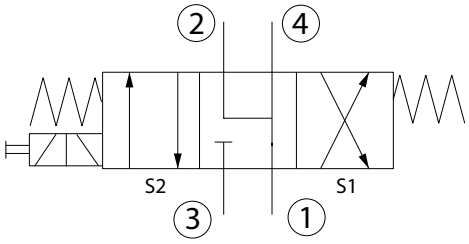
These spool-type valves are primarily used in mobile and industrial applications for controlling the direction of the flow in a circuit. Solenoid spool-type valves are direct acting and respond quickly to coil voltage input. Spool valves will have some leakage due to spool clearance, so if your application 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. Port 1 is not intended as inlet (Tank only).

SPECIFICATIONS

Rated pressure*	350 bar [5075 psi]*
Rated flow at 7 bar [100 psi]	25 l/min [6.6 US gal/min]
Weight	0.85 kg [1.85 lb]
Cavity	**SDC10-4**
Standard Coil	**H16** 29Watt

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

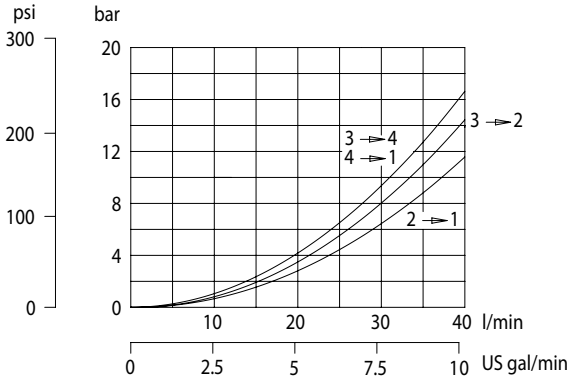
SCHEMATIC



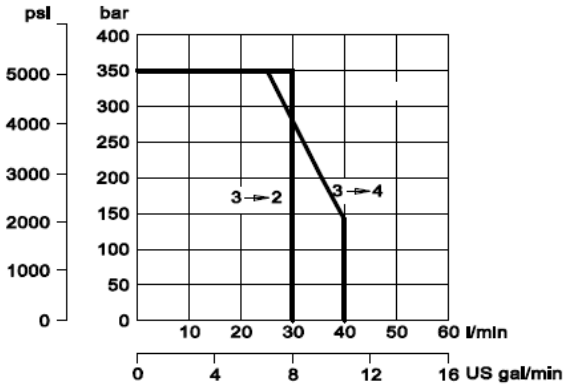
PERFORMANCE CURVES

Pressure drop

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



Operating envelope



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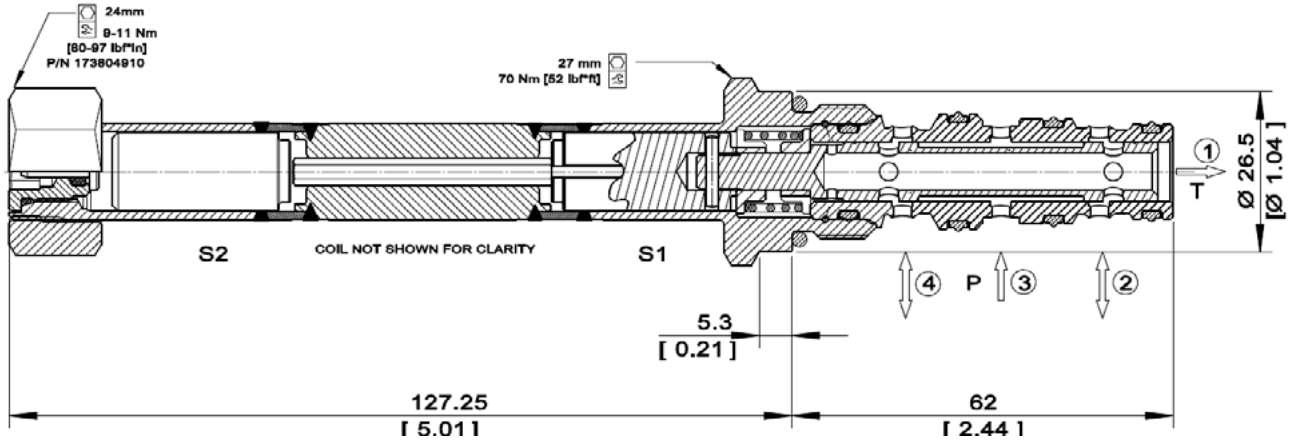
4-Way, 3-Position Spool

HSV10-34-05

DIMENSIONS

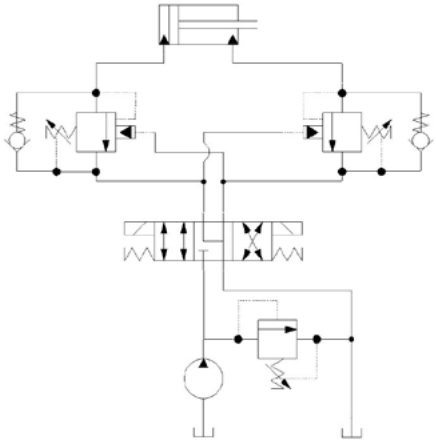
mm [in]

Cross-sectional view



EXAMPLE CIRCUITS

Double-acting cylinder control with dual counterbalance



ORDERING INFORMATION

HSV10 - 34 - 05 - H12D - DE - PN - P - 00

High Pressure Solenoid Valve,
This is a direct-acting, 2-position,
4-way, spool-type solenoid valve.

Coil Voltage

Code	Description
H00	No Coil
H12D	12 VDC
H24D	24 VDC

Coil Termination

Code	Description	IP Rating
00	No Coil	-
FL	Flying Lead	IP 69k
DE	Deutsch	IP 69k
AS	AMP SuperSeal 1.5 and Metri-Pack 150 type 1	IP 69k
ASDB	AMP Super Seal with Diode Bidirectional	IP 69k
DEDB	Deutsch with Diode Bidirectional	IP 69k
FLDB	Flying Lead with Diode Bidirectional	IP 69k

Bodies

Code	Port & Material	Body Nomenclature
00	Cartridge only	No Body
S3B	3/8 BSP, Ductile	SDC10-4-S3B
S4B	1/2 BSP, Ductile	SDC10-4-S4B
S6S	#6 SAE, Ductile	SDC10-4-S6S
S8S	#8 SAE, Ductile	SDC10-4-S8S

*** Aluminum bodies available for lower pressure application. Please consult factory for details.

Seal Option

Code	Seal Material	Seal kit
P	Polyurethane Single Seal	11143824

Manual Override

Code	Description
PN	Push Pin
OPS	Push Pin M/O Nut for Protection & Actuation
PAT	Push and Twist