



# Solenoid Valves Technical Information

## 3-Way, 2-Position Spool

### HSV08-23-02



#### OPERATION

This is a direct-acting, 3-way, 2-position, spool-type solenoid valve. Recommend the following connections: port 3 to inlet, port 1 to actuator and port 2 to drain. When de-energized, the HSV08-23-02 allows flow from port 1 to port 2, while port 3 is blocked. When energized, flow is allowed from port 3 to port 1, while port 2 is blocked. Follow the "Operating Envelope" limits to ensure shifting of the valve during operation.

#### APPLICATIONS

Common applications include on-off control of single-acting cylinders, clutches, or motors. 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.



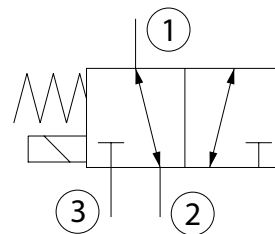
Shown with Standard Coil,  
Deutsch Connector

#### SPECIFICATIONS

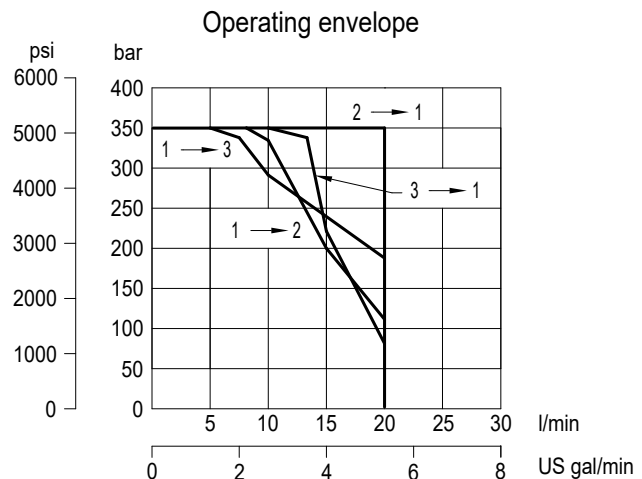
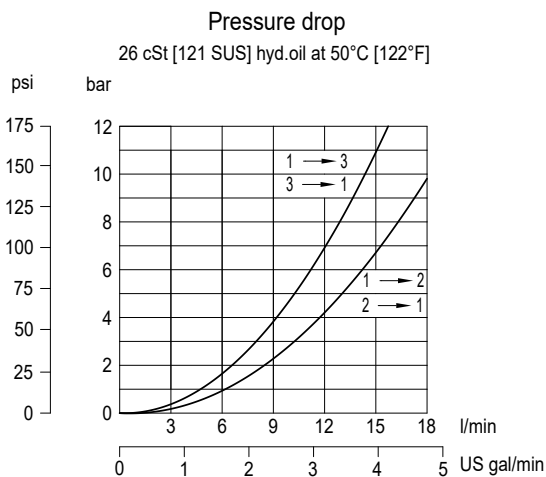
Rated pressure*	350 bar [5075 psi]
Rated flow at 7 bar [100 psi]	16 l/min [4.2 US gal/min]
Weight	0.35 kg [0.77 lb]
Cavity	<b>SDC08-3</b>
Standard Coil	<b>M13</b> 20 Watt
Robust Coil	<b>R13</b> 16 Watt Robust Nut P/N <b>173800539</b> (no coil O-rings needed)

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

#### SCHEMATIC



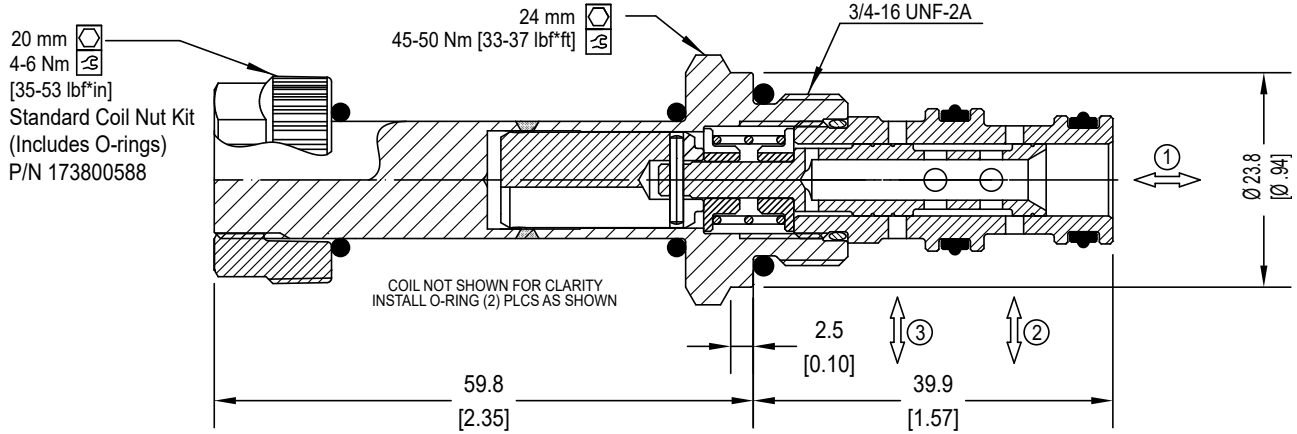
#### PERFORMANCE CURVES



### DIMENSIONS

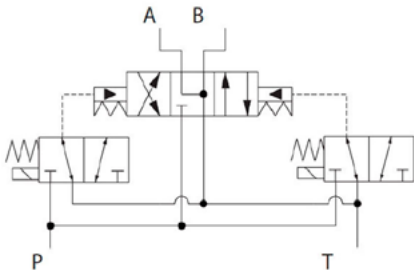
mm [in]

### Cross-sectional view

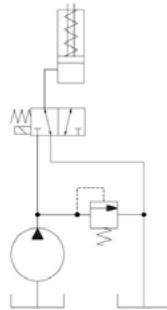


### EXAMPLE CIRCUITS

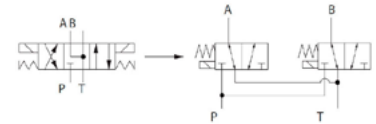
*On/Off Pilot Control for Directional Spool Valve*



*On/Off Pilot Control for Single-Acting Cylinder, Clutch or Brake*



*Create a Low Pressure 4-Way, 3-Position Directional Control Valve*



### ORDERING INFORMATION

## HSV08 - 23 - 02 - 12D - DE - XC - P - 00

High Pressure Solenoid Valve  
2 position, 3 way, 08-Size.

Coil Voltage

Description	Standard Coil Code	Robust Coil Code
No Coil	00	R00
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 SuperSeal with Diode	ASD	IP67	ASDB	IP69K
Deutsch with Diode	DED	IP69K	DEDB	IP69K
Flying Lead with Diode	FLD	IP65	FLDB	IP69K
DIN 43650	DN	IP65	-	-

Housings

Code	Ports & Material	Body Nomenclature
00	Cartridge only	No Body
S3B	3/8 BSP, Steel	CP08-3-S3B
S4S	#4 SAE, Steel	CP08-3-S4S
S6S	#6 SAE, Steel	CP08-3-S6S

\*\*\* Aluminum bodies available for lower pressure applications [less than 210 bar (3000 psi)]. Please consult factory for details.

Seal Option

Code	Seal Material	Seal kit
P	Polyurethane Single Seal	11167282

Manual Overrides

Code	Description
XC	No manual override