



OPERATION

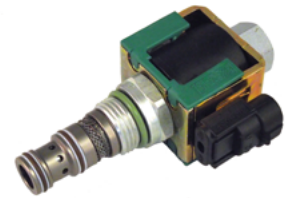
This is a direct-acting, 3-way, 2-position, spool-type solenoid valve. Recommend the following connections: port 3 to inlet, port 1 to actuator and port 2 to drain. Follow the “Operating Envelope” limits to ensure shifting of the valve during operation. The 09 Series valve uses a 10 size cavity with an 08 size tube and coil, providing an optimal product for high flow and low pressure, while minimizing pressure drop in the system.



Shown with Standard Coil and Filter

APPLICATIONS

Common applications include low-pressure on-off control of single-acting cylinders, clutches, or brakes. It is also optimal for hydraulically piloting large directional spool valves or for pilot cut-off valve of the control pressure of a valve or piston pump. Refer to example circuits. Use the optional screen to help protect the actuator from large particles. Select the robust coil for those extreme environmental conditions – voltage extremes, high temperature, shock & vibration, chemicals, and/or water ingress.



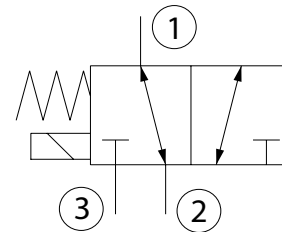
Shown with Robust Coil and Filter

SPECIFICATIONS

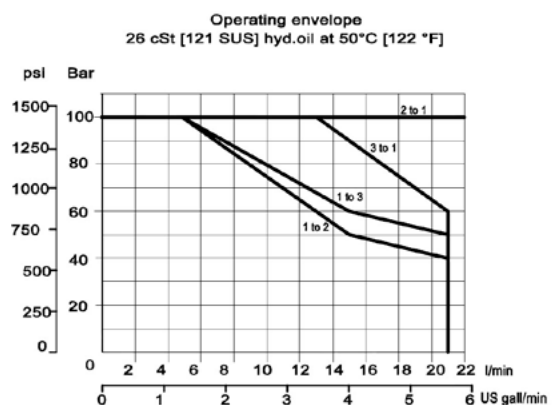
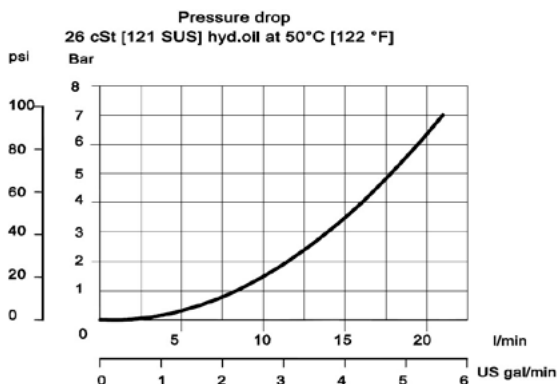
Rated pressure*	100 bar [1450 psi]
Maximum flow at 7 bar [100 psi]	21 l/min [6 US gal/min]
Leakage	20 ml/mIn [1.22 In ³ /mIn] at rated pressure
Weight	0.354 kg [0.78 lb]
Cavity	SDC10-3
Standard Coil	M13 20 Watt
Robust Coil	R13 16 Watt Robust Nut P/N 173800539 No coil O-rings needed.

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

SCHEMATIC



PERFORMANCE CURVES

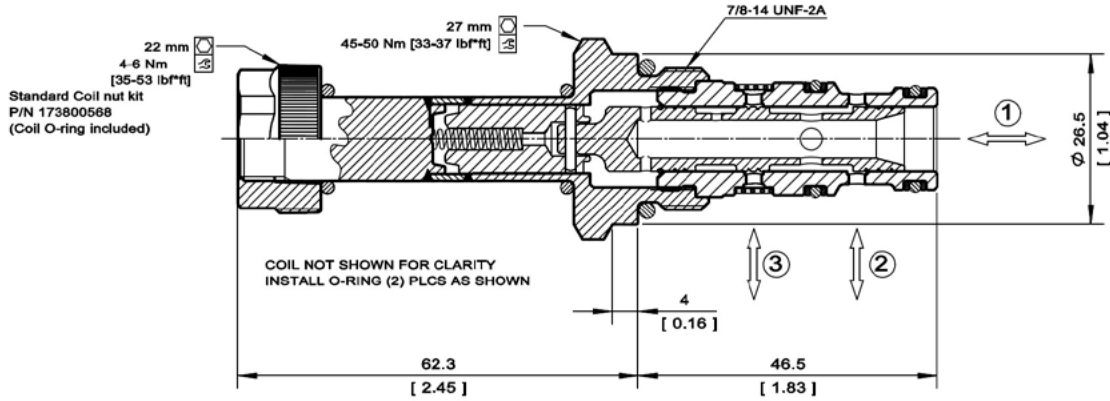




DIMENSIONS

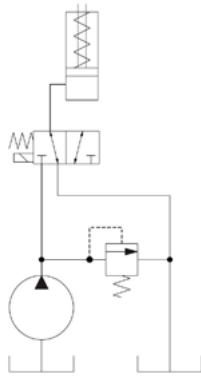
mm [in]

Cross-sectional view



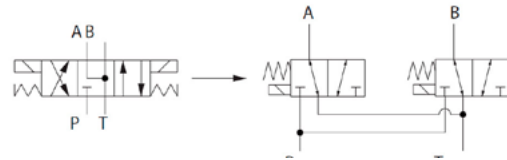
EXAMPLE CIRCUITS

On/Off Pilot Control for Single-Acting Cylinder,
Clutch or Brake
Single acting cylinder, clutch, or brake

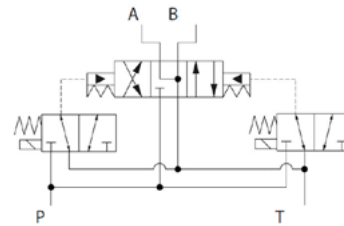


P103 109

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



On/Off Pilot Control for
Directional Spool Valve



P103 111

ORDERING INFORMATION

SV09 - 23 - 02 - 12D - DE - B - F - 00

Solenoid Valve, Spool Type, 10 Size Cavity		Code		Body and Ports	Body Nomenclature	
23:	2 Position, 3 Way	00	00	Cartridge Only	No Body	
02:	Schematic type	45	45	#4 SAE, AL	CP08-3-45	
		65	65	#6 SAE, AL	CP08-3-65	
		SE2B	SE2B	1/4 BSP, AL	SDC08-3-SE2B	
		SE3B	SE3B	3/8 BSP, AL	SDC08-3-SE3B	
				Seal Code	Material	Seal Kits
				B	Buna-N	354004210
				V	Viton	354003719

Coil Voltage	Standard Coil Code	Robust Coil Code	Coil Termination	Standard Coil Code	IP Rating	Robust Coil Code	IP Rating
No Coil, with nut*	00	R00	No Coil	00	-	00	-
10 VDC	10D	R10D	Amp Junior	AJ	IP67	-	-
12 VDC	12D	R12D	Amp Junior with Diode	AJD	IP67	-	-
20 VDC	20D	R20D	AMP SuperSeal 1.5	AS	IP67	AS	IP69K
24 VDC	24D	R24D	AMP SuperSeal with Diode	ASD	IP67	ASDB	IP69K
110 VAC**	110A	-	Deutsch	DE	IP67	DE	IP69K
220 VAC**	220A	-	Deutsch with Diode	DED	IP67	DEDB	IP69K
			Flying Leads	FL	IP65	FL	IP65
			Flying Leads with Diode	FLD	IP65	Fldb	IP65
			DIN 43650	DN	IP65	-	-
			Metri-Pack 150, Type 2	-	-	M3	IP69K
			Metri-Pack 150 with Diode	-	-	M3DB	IP69K

* Standard coil – plastic nut and O-rings
R-coil – steel nut P/N 173800539
(no coil O-rings needed)
** DIN only - external rectifier needed