

Part number:

HYDROMA

HYDRAULICKÉ SYSTÉMY

HIDROMA
SYSTEMS

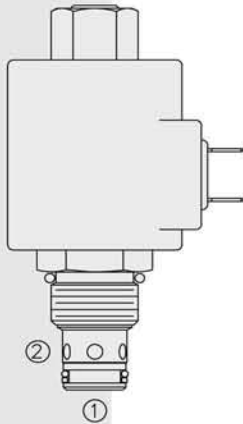
UKŁADY HYDRAULICZNE

HYDROMA

ГИДРАВЛИЧЕСКИЕ СИСТЕМЫ

SOLENOID VALVES

SV10-21 Poppet, 2-Way, Normally Open



DESCRIPTION

A solenoid-operated, 2-way, piloted, poppet-type, normally open, screw-in, hydraulic cartridge valve designed for low leakage in load-holding applications.

OPERATION

When de-energized, the **SV10-21** allows flow from 2 to 1. Flow from 1 to 2 is severely restricted in this mode. If the 1 to 2 path is required, see model SV10-23, page 1.053.1.

When energized, the valve's poppet closes on its seat, blocking flow in the 2 to 1 direction. In this mode the cartridge will allow 1 to 2 flow after overcoming the solenoid force (requires 3.4 to 10.3 bar / 50 to 150 psi).

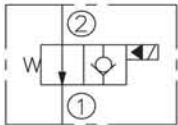
Operation of Manual Override Option: To override, push and hold override button.

FEATURES

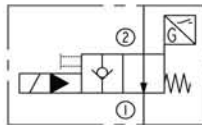
- Continuous duty-rated solenoid.
- Hardened seat for long life and low leakage.
- Optional coil voltages and terminations.
- Efficient wet-armature construction.
- Cartridges are voltage interchangeable.
- Unitized, molded coil design.
- Industry common cavity.
- Manual override option.
- Optional waterproof E-Coils rated up to IP69K.

SYMBOLS

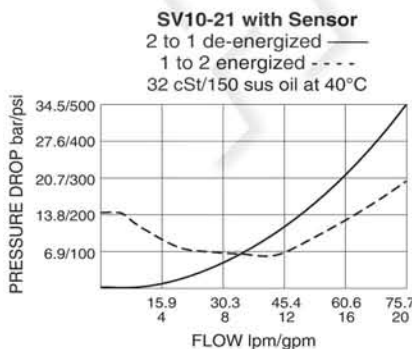
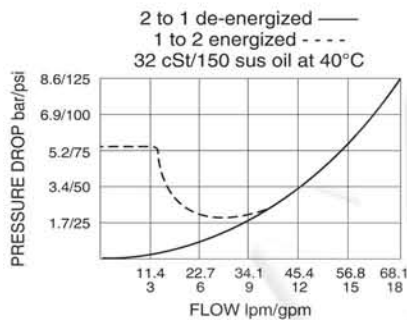
ISO:



with Sensor:



PERFORMANCE (Cartridge Only)



RATINGS

Operating Pressure: 207 bar (3000 psi)

Proof Pressure: 345 bar (5000 psi)

Flow: 68.1 lpm (18 gpm); see performance chart

Internal Leakage: 0.15 cc/minute (3 drops/minute) max. at 207 bar (3000 psi)

Temperature: -40 to 120°C with standard Buna seals

Coil Duty Rating: Continuous from 85% to 115% of nominal voltage

Response Time: First indication of change of state with 100% voltage supplied at 80% of nominal flow rating: Energized: 80 msec.; De-energized: 30 msec.

Initial Coil Current Draw at 20°C: Standard Coil: 1.67 amps at 12 VDC; 0.18 amps at 115 VAC (full wave rectified).

E-Coil: 1.7 amps at 12 VDC; 0.85 amps at 24 VDC

Minimum Pull-in Voltage: 85% of nominal at 207 bar (3000 psi)

Filtration: See page 9.010.1

Fluids: Mineral-based or synthetics with lubricating properties at viscosities of 7.4 to 420 cSt (50 to 2000 sus); See Temperature and Oil Viscosity, page 9.060.1

Installation: No restrictions; See page 9.020.1

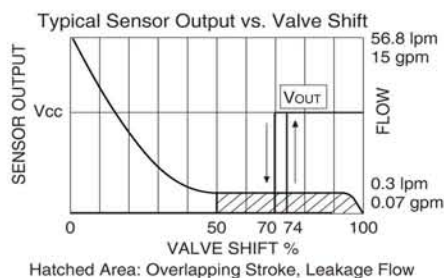
Cavity: VC10-2; See page 9.110.1

Cavity Tool: CT10-2XX; See page 8.600.1

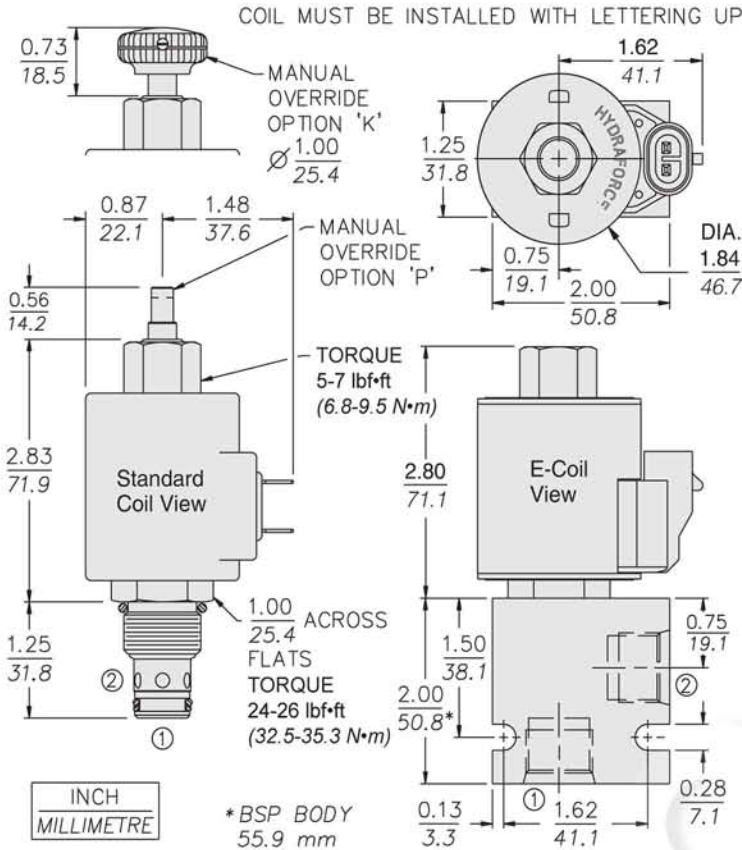
Seal Kit: SK10-2X-T; See page 8.650.1

Coil Nut: Part No. 7004420;

For E-coils manufactured prior to 1-1-04, see page 3.400.1 for coil nut info.



DIMENSIONS



Dimensions will differ significantly with Sensor Option; see page 3.010.1.

MATERIALS

Cartridge: Weight: 0.16 kg. (0.35 lbs.) Weight with Sensor option: 0.52 kg. (1.14 lbs.); Steel with hardened work surfaces. Zinc-plated exposed surfaces. Buna N O-rings and polyester elastomer back-up standard.

Standard Ported Body: Weight: 0.16 kg. (0.35 lbs.) Anodized high-strength 6061 T6 aluminum alloy, rated to 207 bar (3000 psi). Ductile iron bodies available; dimensions may differ. See page 8.010.1

Standard Coil: Weight: 0.27 kg. (0.60 lbs.) Unitized thermoplastic encapsulated, Class H high temperature magnetwire. See page 3.200.1

E-Coil: Weight: 0.41 kg. (0.9 lbs.) Fully encapsulated with rugged external metal shell. Flated up to IP69K with integral connectors. See page 3.400.1.

TO ORDER

SV10-(P)21(A)

Position Indicator	None (Blank)
	Switch P
	Restricted Flow A
Option	None (Blank)
	152µ Screen S
	Manual Override P
	Manual Override K
For Manual Override options see page 1.001.1	
Porting	
	Cartridge Only 0
	SAE 8 8T
	3/8 in. BSP* 3B
*BSP Body; U.K. Mfr. Only	

Voltage Std. Coil	
0	Less Coil**
10	10 VDC†
12	12 VDC
24	24 VDC
36	36 VDC
48	48 VDC
24	24 VAC
115	115 VAC
230	230 VAC

**Includes Coil Nut

† DS, DW or DL terminations only

E-Coils: 10, 12, 20 or 24 VDC only.

Seals	
N	Buna N (Std.)
V	Fluorocarbon

- Sensor Option: See page 3.010.1

Sensor Type	
(Blank)	None
3	Dual Output, N.C./N.O.

Sensor/Connector	
(Blank)	None
N	Neutral Sense/DT04-4P
M	Neutral Sense/M12-4P

Mating Connectors:
DT06-4S: Part No. 4001953
M12-4S: available at www.turck.com or www.binder-usa.com

Coil Termination	E-Coil	D-Coil
Deutsch DT04-2P	ER (IP69K)	DR (IP65)
Metri-Pack® 150	EY (IP69K)	DY (IP65)
Dual Lead Wires	EL (IP69K)	DL (IP65)
Amp Jr. Timer	EJ (IP67)	—
DIN 43650	EG (IP65)	DG (IP65)
Dual Spades	—	DS (IP65)

For Coils with Zener Diode, add 'Z' to option code. For example: "ERZ". Not available on all models. See coil option info. on pages 3.200.1 & 3.400.1