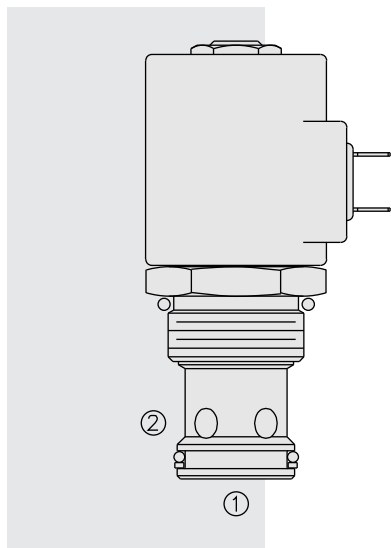


SV16-22 Poppet, 2-Way, Normally Closed



DESCRIPTION

A solenoid-operated, 2-way, normally closed, poppet-type, screw-in hydraulic cartridge valve, designed to function as a load-holding or blocking valve in applications requiring low internal leakage.

OPERATION

When de-energized, the **SV16-22** acts as a check valve, allowing flow from 1 to 2, while blocking flow from 2 to 1.

When energized, the poppet lifts to open the 2 to 1 flow path. In this mode, flow is also allowed from 1 to 2.

Operation of Manual Override Option: To override, push button in, twist counter-clockwise 180° and release. In this position, the valve will remain open.

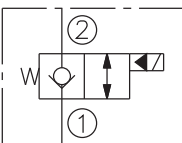
To return to normal operation, push button in, twist clockwise 180° and release. Override will be detented in this position.

FEATURES

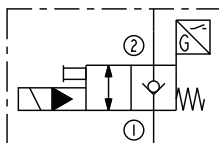
- Reverse flow when energized.
- Hardened seat for long life and low leakage.
- Optional coil voltages and terminations.
- Efficient wet-armature construction.
- Cartridges are voltage interchangeable.
- Optional waterproof E-Coils rated up to IP69K.
- Unitized, molded coil design.
- Manual override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

SYMBOLS

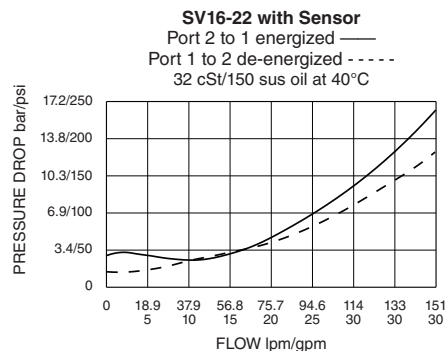
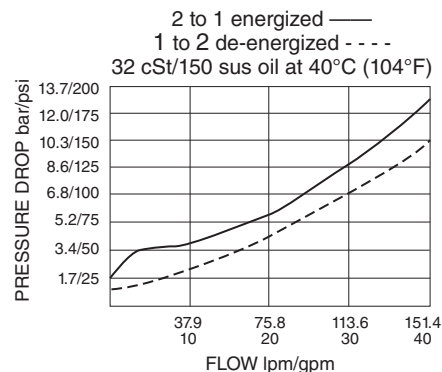
ISO:



with Sensor:



PERFORMANCE (Cartridge Only)



RATINGS

Operating Pressure: 241 bar (3500 psi)

Proof Pressure: 345 bar (5000 psi)

Burst Pressure: 827 bar (12,000 psi)

Flow Rating: See Performance Chart

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

Temperature: -40 to 100°C (-40 to 212°F) with standard Buna seals;

-30 to 205°C (-20 to 400°F) with fluorocarbon seals

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

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: VC16-2; See page 9.116.1

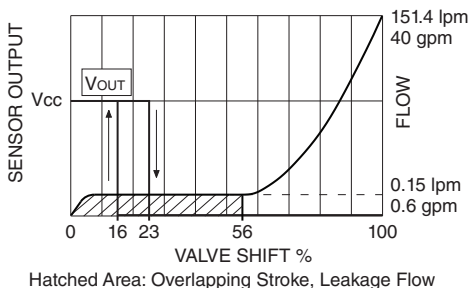
Cavity Tool: CT16-2XX; See page 8.600.1

Seal Kit: SK16-2X-T; See page 8.650.1

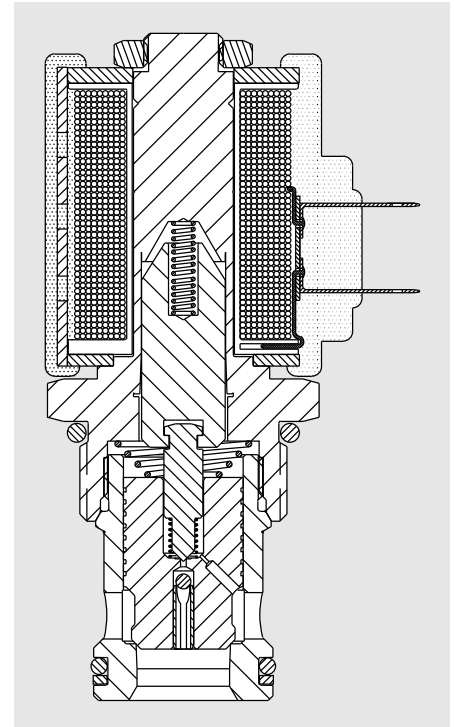
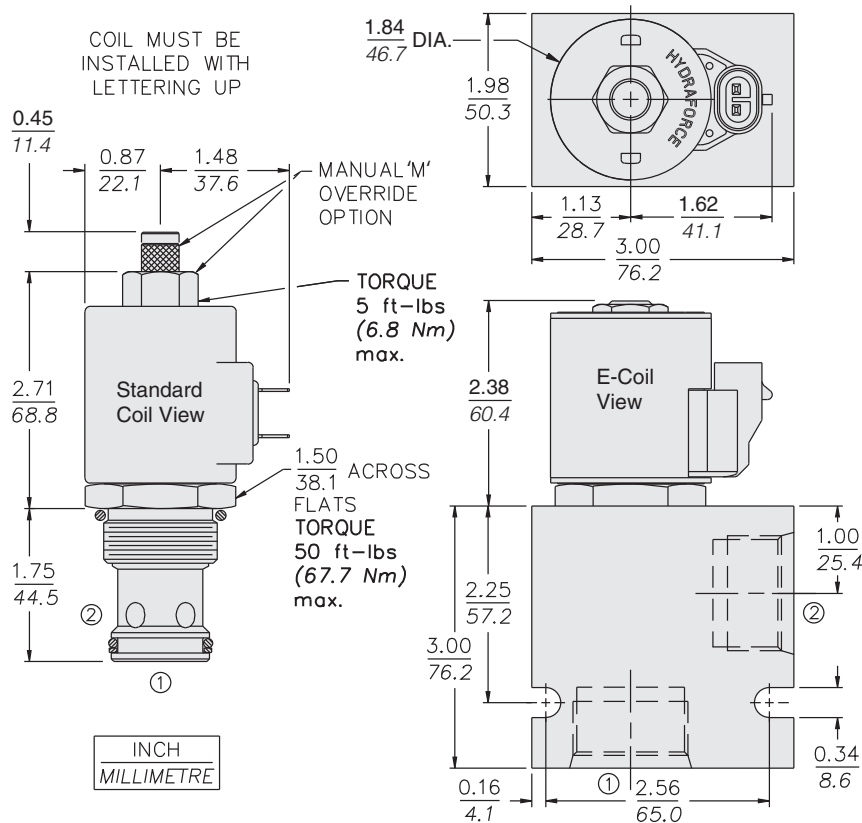
Coil Nut: Part No. 7004400;

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

Typical Sensor Output & Flow vs. Valve Shift



DIMENSIONS



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

MATERIALS

Cartridge: Weight: 0.31 kg. (0.69 lbs.); Steel with hardened work surfaces. Zinc-plated exposed surfaces. Buna N O-rings and polyester elastomer back-up standard.

Standard Ported Body: Weight: 0.57 kg. (1.25 lbs.); Anodized high-strength aluminum alloy, rated to 207 bar (3000 psi). Ductile iron bodies available; dimensions may differ. See page 8.016.1.

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. Rated up to IP69K with integral connectors.

Note: See page 3.400.1 for all E-Coil retrofit applications.

TO ORDER

SV16-(P)22(A) - - - - - Sensor Option: See page 3.010.1

Position Indicator None (Blank) Switch P Restricted Flow A with sensor, valve is rated 3000 psi (207 bar) Option None (Blank) Manual Override M Manual Override Y Manual Override J For Manual Override options see page 1.001.1 Porting Cartridge Only 0 SAE 16 16T	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 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
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Coil Termination Deutsch DT04-2P Metri-Pack® 150 Dual Lead Wires Amp Jr. Timer DIN 43650 Dual Spades	E-Coil ER (IP69K) EY (IP69K) EL (IP69K) EJ (IP67) EG (IP65) —	D-Coil DR (IP65) DY (IP65) DL (IP65) — DG (IP65) DS (IP65)
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For Coils with Zener Diode, add "Z" to option code. For example: "ER/Z". Not available on all models. See coil option info. on pages 3.200.1 & 3.400.1