



2-way, direct-acting, solenoid-operated directional poppet valve with overlap and position switch

Functional Group:

Products : Cartridges : Directional : 2 Way : Solenoid Operated Poppet with Overlap and Position Switch

Capacity:
6 gpm (23 L/min.)

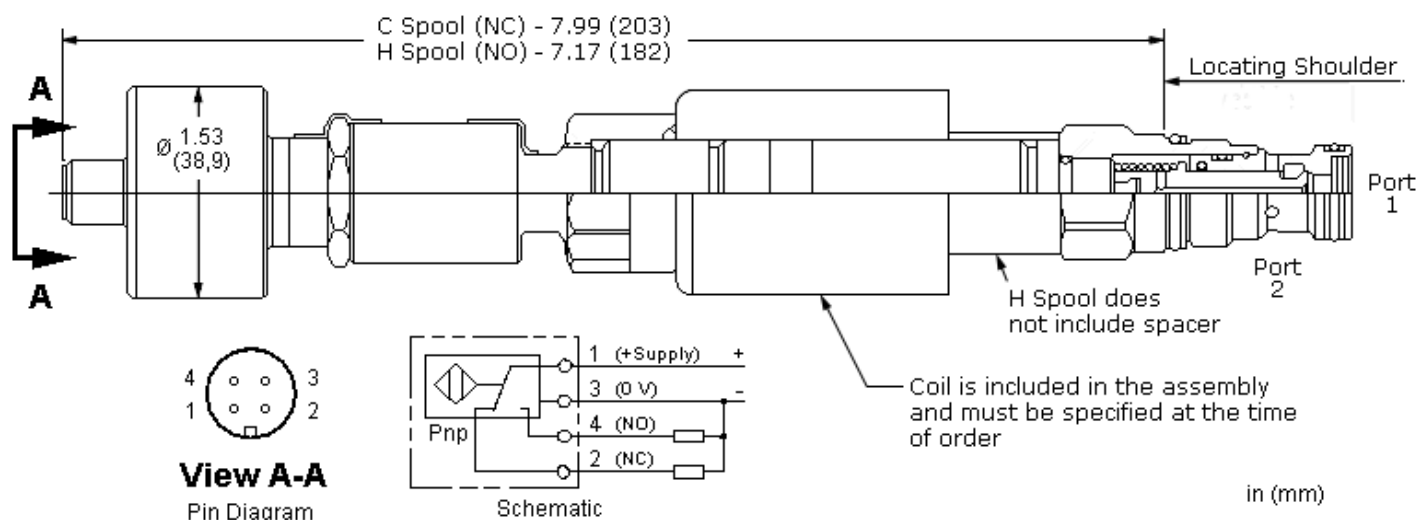
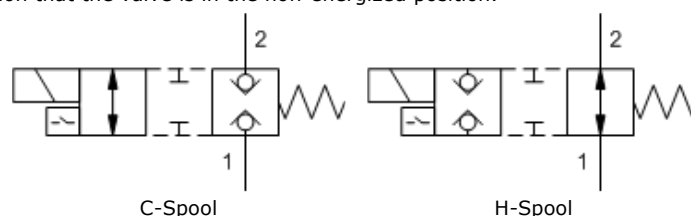
Model:
DTCAZ

Product Description

This solenoid-operated 2-way, 2-position cartridge is a direct-acting, poppet-style directional valve. The valve is well suited for load holding or load blocking applications where low leakage is a requirement.

Many poppet style directional valves pass a small amount of fluid when the pressure across them changes suddenly. This is due to the compressibility of the fluid. This valve has been designed to prevent this from happening.

The position switch provides confirmation that the valve is in the non-energized position.



Technical Features

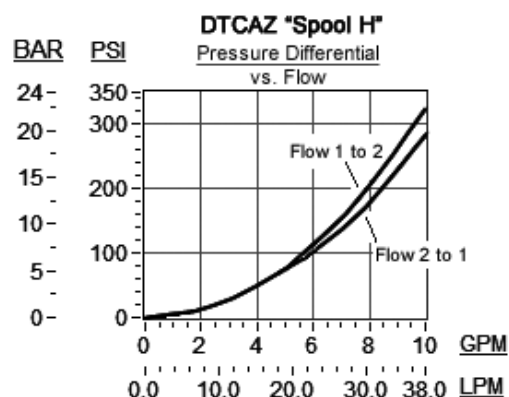
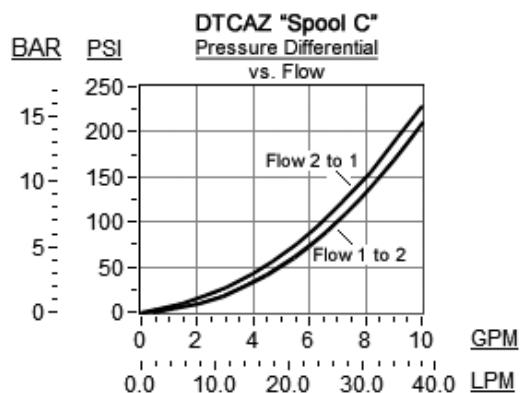
- A coil must be ordered with this cartridge. This cartridge is supplied as a sealed, factory set unit and is not field serviceable. If the assembly requires changes or service it needs to be returned to the factory.
- Any tampering will violate the product warranty.
- Position switch is CE approved.
- When torquing this cartridge into its cavity, a crow's foot wrench or similar will be required since the position switch precludes the use of a deep socket wrench.
- The solenoid tube assembly is fatigue rated for 5000 psi (350 bar) service.
- This valve is direct actuated and requires no minimum hydraulic pressure for operation.
- Suitable for load holding applications.
- This valve utilizes a wet armature design. This means that the working fluid surrounds the armature and is exposed to the heat generated by the coil. This can be a factor if the coil is energized for long periods of time. Some fluids, notably water/glycol mixtures, break down at these temperatures over time and form varnishes that will affect the function of the cartridge.
- The solenoid's unique magnetic design results in a high efficiency solenoid, yielding high spool actuating force per Watt expended, leading to reliable valve shifting.
- Incorporates the Sun floating style construction to minimize the possibility of internal parts binding due to excessive installation torque and/or cavity/cartridge machining variations.

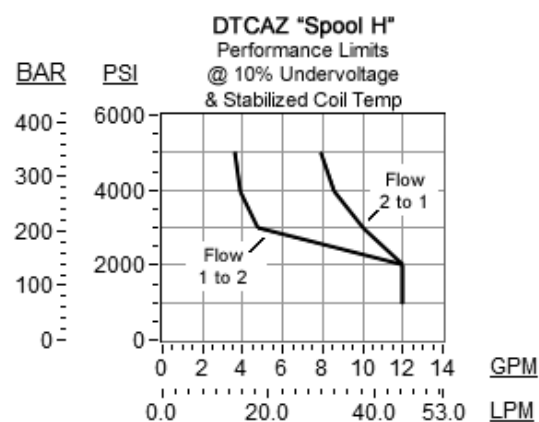
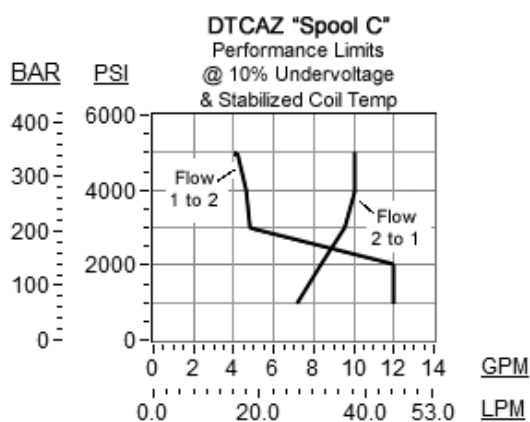
Technical Data

	U.S. Units	Metric Units
Cavity	T-13A	
Capacity	6 gpm	23 L/min.
Maximum Operating Pressure	5000 psi	350 bar
Maximum Valve Leakage at 110 SUS (24 cSt)	10 drops/min.@5000 psi	0,7 cc/min.@350 bar
Response Time - Typical	50 ms	
Series (from Cavity)	Series 1	
Switching Frequency	15000 cycles/hr	
Solenoid Tube Diameter	.75 in.	19 mm
Valve Hex Size	7/8 in.	22,2 mm
Valve Installation Torque	30 - 35 lbf ft	40 - 50 Nm
Seal Kits - Cartridge	Buna: 990-413-007	
Seal Kits - Cartridge	Viton: 990-413-006	
Model Weight	2.02 lb.	0.92 kg.

Switch Specifications

	U.S. Units	Metric Units
Supply Voltage	20-30 VDC	
Reverse Polarity Protection	Yes	
Maximum Output Load	≤ 400 mA, Duty Ratio 100%	
Short Circuit Protection	Yes, Load Short Unlimited	
Turn On Time	≤ 25 ms	
Hysteresis	≤ .002 in.	
Operating Temperature Range	-25 to 80 °C	
Thermal Shift - 0 to 80 °C ≤ ±	.004 in.	0,1 mm
EMC	DIN EN 61000-6-1/2/3/4	
Connector Environment Rating	IP65	
Vibration	≥ 50g, 0-500 impulses/sec	
Shock	>50 g, 1ms	
Connector	M12 X 1 (4) Pin	





DTCA-ZCN-224

Spool Configuration

Standard Options

- C** Normally Closed
H Normally Open

Seal Material

Standard Options

- N** Buna-N
V Viton

Coil

*** See Coil Options Below

Standard Coil Options

DIN 43650 3 pin (Hirschman)	AMP Junior Timer	Metri-Pack	Deutsch DT04-2P

- 211** DIN 43650 3 pin
(Hirschman) 115 VAC
- 212** DIN 43650 3 pin
(Hirschman) 12 VDC
- 223** DIN 43650 3 pin
(Hirschman) 230 VAC
- 224** DIN 43650 3 pin
(Hirschman) 24 VDC

- 612** AMP Junior Timer 12 VDC
- 624** AMP Junior Timer 24 VDC
- 812** Metri-Pack 12 VDC

- 824** Metri-Pack 24 VDC
- 912** Deutsch DT04-2P 12 VDC
- 924** Deutsch DT04-2P 24 VDC

Stainless options not available for this model