

## 2-way, direct-acting, solenoid-operated directional poppet valve

Capacity:  
10 gpm (40  
L/min.)

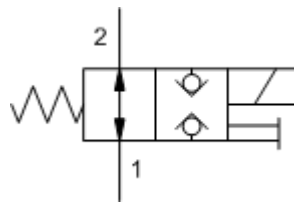
Functional Group:

Products : Cartridges : Directional : 2 Way : Poppet, Solenoid Operated

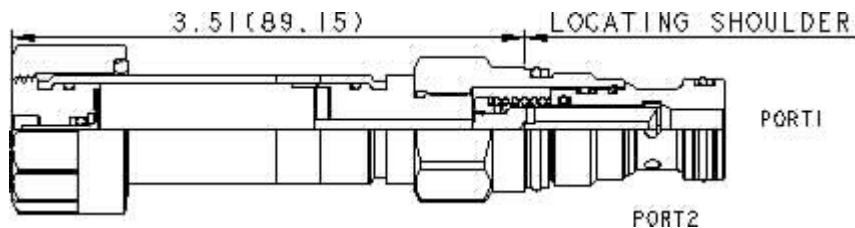
Model:  
DTDA-MHN

### Product Description

This solenoid-operated, 2-position, 2-way cartridge is a direct-acting, poppet-style valve used to control the direction of flow in a hydraulic circuit. The valve is available in either a normally open or normally closed configuration and is well suited for load holding or load blocking applications where low leakage is a requirement.



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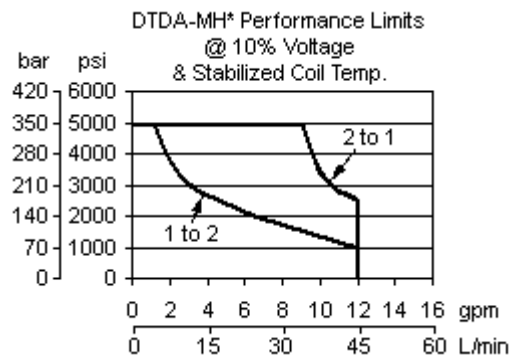
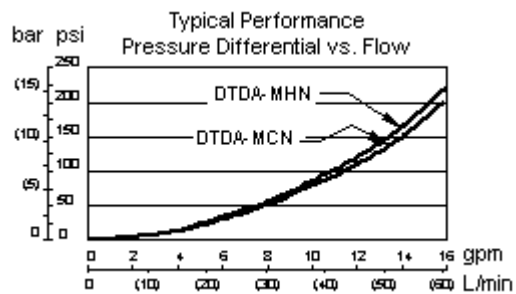
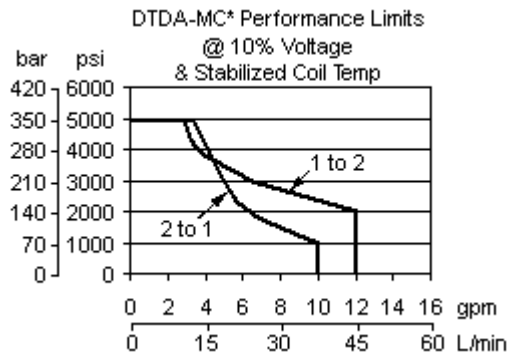


### Technical Features

- The solenoid tube assembly is fatigue rated for 5000 psi (350 bar) service.
- Valves exhibit extremely low leakage rates; less than 10 drops/min. @ 5000 psi (350 bar).
- This cartridge is not equipped with a manual override; a manual override plus additional override options are available. See Option Selection below.
- A wide variety of coil termination and voltage options are available.
- Coils are interchangeable with other Sun Series 1 solenoid products and can be mounted on the tube in either direction.
- 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.
- 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.
- Depending on the connector, coils are rated up to IP69 thereby eliminating the need for an additional weatherization kit. See "Coil Technical Information" for more details.

Technical Data

	U.S. Units	Metric Units
Cavity	T-13A	
Capacity	10 gpm	40 L/min.
Manual Override Force Requirement	22 lb@5000 psi	10 kg@350 bar
Manual Override Stroke	.10 in.	2,5 mm
Maximum Operating Pressure	5000 psi	350 bar
Maximum Valve Leakage at 110 SUS (24 cSt)	10 drops/min.@5000 psi	10 drops/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	45 - 50 Nm
Model Weight	.50 lb	0,25 kg
Seal Kits	Buna: 990-413-007	
Seal Kits	Viton: 990-413-006	



DTDA-MHN

Control

Spool Configuration

External Material/Seal  
Material

M Manual Override +5.00

H Normally Open +0.00

N Buna-N +0.00

Stainless material/seal options not available for this model

Related Models

DTDAS

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