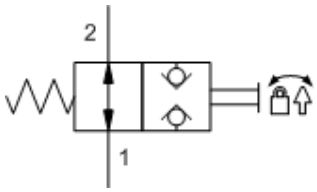
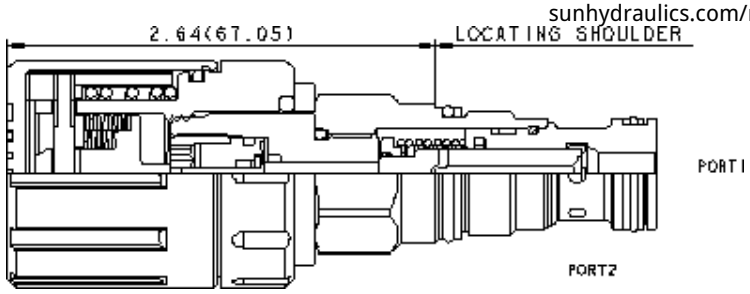
MODEL
DTDM

2-way, manually operated, directional poppet valve
SERIES 1 / CAPACITY: 40 L/min. / CAVITY: T-13A

sunhydraulics.com/model/DTDM



D-Control, H-Poppet



CONFIGURATION

D	Control	Twist/Lock (Dual) Manual Override
H	Poppet Configuration	Normally Open
N	Seal Material	Buna-N

This manually operated, 2-position, 2-way directional 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. Manual operation is achieved via Sun's Twist/Lock manual override mechanism and is designed for intermittent (infrequent) use only. Due to the poppet-style construction, this valve has extremely low leakage.

TECHNICAL DATA

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Cavity	T-13A
Series	1
Capacity	40 L/min.
Maximum Operating Pressure	350 bar
Maximum Valve Leakage at 110 SUS (24 cSt)	0,7 cc/min.@350 bar
Operating Torque	1,2 Nm
Valve Hex Size	22,2 mm
Valve Installation Torque	41 - 47 Nm
Seal kit - Cartridge	Buna: 990413007
Seal kit - Cartridge	Polyurethane: 990413002
Seal kit - Cartridge	Viton: 990413006
Model Weight	0.23 kg.

CONFIGURATION OPTIONS

Model Code Example: DTDMArray

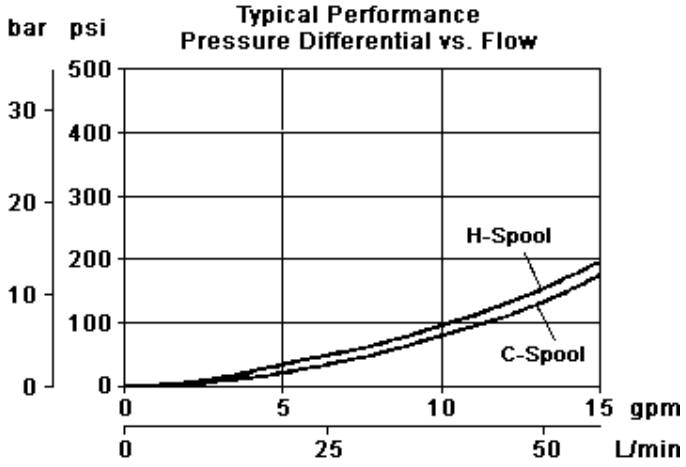
CONTROL (D)	POPPET CONFIGURATION (H)	SEAL MATERIAL (N)
D Twist/Lock (Dual) Manual Override	**H** Normally Open	**N** Buna-N
L Twist/Lock (Detent) Manual Override	**C** Normally Closed	**E** EPDM
T Twist (Momentary) Manual Override		**V** Viton

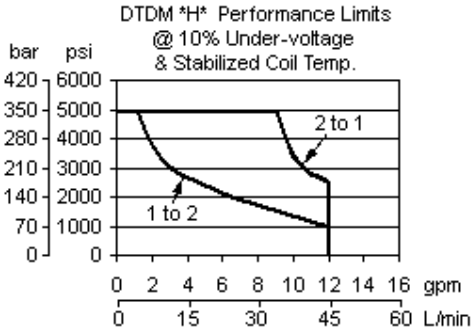
© 2026 Sun Hydraulics

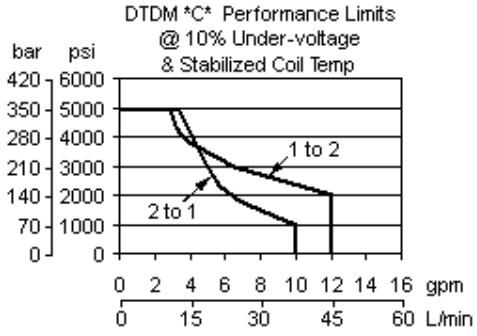
TECHNICAL FEATURES

- This valve is designed for intermittent use such as a manual override. The manual control assembly has a mechanical life expectancy of approximately 7,000 cycles.
- The momentary/twist control option "T" allows the operator to momentarily shift the valve by twisting the knob clockwise and releasing. Once released, the valve returns to its normal position.
- The detent/lock control option "L" allows the operator to shift the valve into a mechanically detented position by twisting the knob counter-clockwise. This detented position will be maintained until the operator twists the knob clockwise and allows the valve to return to its normal position. Please note that the detented position is for temporary shifting only and not intended to be a permanent detent.
- The dual-operation control option "D" allows the operator to either shift the valve momentarily by twisting the knob clockwise or shift it into a mechanically detented postion by twisting counter-clockwise. Please note that the detented position is for temporary shifting only and not intended to be a permanent detent.
- The control on this valve is meant to be operated by a person's hand. The control should not be modified, for instance fastening a lever to the knob. Under no circumstances should the control be operated by other mechanical devices.
- Valves exhibit extremely low leakage rates; less than 10 drops/min. @ 5000 psi (0,7 cc/min @350 bar).
- This valve is suitable for load holding applications when using the Normally Closed option. The detent mechanism in the manual override is meant for temporary actuation.
- Cartridges configured with EPDM seals are for use in systems with phosphate ester fluids. Exposure to petroleum based fluids, greases and lubricants will damage the seals.
- 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.

PERFORMANCE CURVES







© 2026 Sun Hydraulics