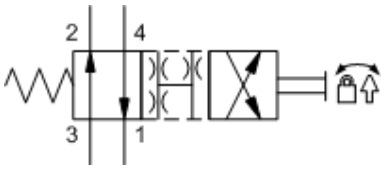
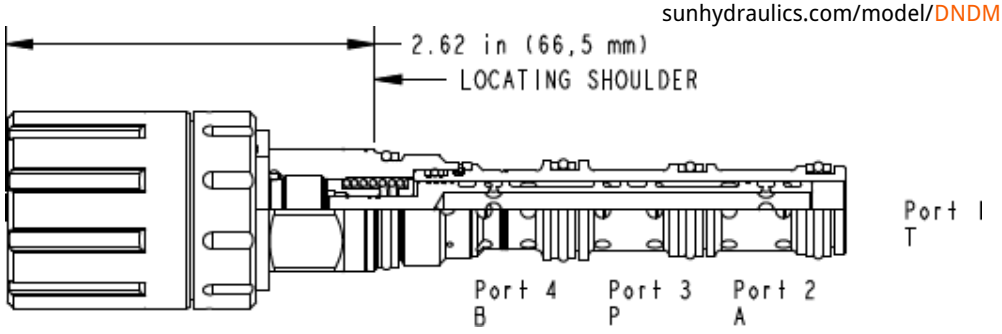
MODEL
DNDM

4-way, manually operated, directional spool valve
SERIES 1 / CAPACITY: 40 L/min. / CAVITY: T-31A

sunhydraulics.com/model/DNDM



D-Control, N-Spool



CONFIGURATION

D	Control	Twist/Lock (Dual) Manual Override
N	Spool Configuration	Through, Shift to Cross
N	Seal Material	Buna-N

This manually operated, 2-position, 4-way directional cartridge is a direct-acting, balanced spool valve used to control the direction of flow in a hydraulic circuit. Manual operation is achieved via Sun's Twist/Lock manual override mechanism and is designed for intermittent (infrequent) use only.

TECHNICAL DATA

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

Cavity	T-31A
Series	1
Capacity	40 L/min.
Maximum Operating Pressure	350 bar
Maximum Valve Leakage at 110 SUS (24 cSt)	160 cc/min.@210 bar
Operating Torque	1,2 Nm
Valve Hex Size	22,2 mm
Valve Installation Torque	41 - 47 Nm
Seal kit - Cartridge	Buna: 990431007
Seal kit - Cartridge	EPDM: 990431014
Seal kit - Cartridge	Viton: 990431006
Model Weight	0.27 kg.

CONFIGURATION OPTIONS

Model Code Example: DNDMArray

CONTROL (D)

- **D** Twist/Lock (Dual) Manual Override
- **L** Twist/Lock (Detent) Manual Override
- **T** Twist (Momentary) Manual Override

SPOOL CONFIGURATION (N)

- **N** Through, Shift to Cross
- **C** Closed, Shift to Through
- **D** Closed, Shift to Cross
- **E** Cross, Shift to Closed
- **H** Open, Shift to Cross
- **L** Cross, Shift to P to A, B and T Blocked
- **R** Regen, Shift to Cross
- **T** Tandem, Shift to Through
- **U** Through, Shift to Tandem
- **Y** Motor, Shift to Cross

SEAL MATERIAL (N)

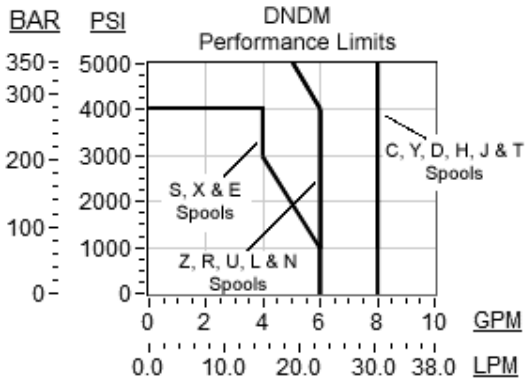
- **N** Buna-N
- **E** EPDM
- **V** Viton

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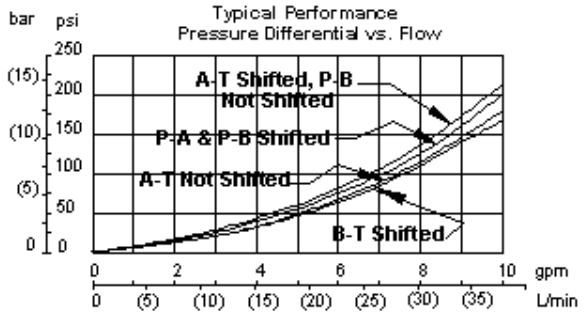
TECHNICAL FEATURES

- 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.
- 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



Note: Performance limits are derived with 4-way operation and symmetrical flow. For valve applications where either asymmetrical flow or 3-way operation is present, these performance limits may be reduced.



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