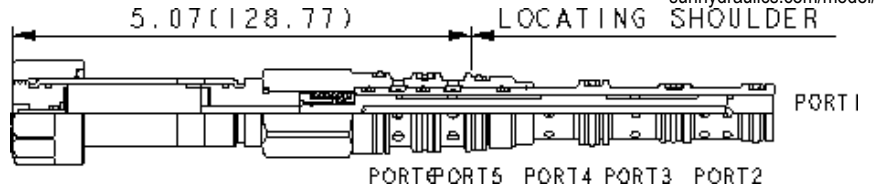


M or S-Control



This solenoid-operated 6-way, 2-position cartridge is a direct-acting, balanced spool valve. The typical use for this valve is to select between two separate circuits. The de-energized condition connects P and T to the first circuit and when energized connects P and T to the second circuit.

CONFIGURATION

M	Control	Manual Override
X	Spool Configuration	-
N	Seal Material	Buna-N
(none)	Coil	No coil

TECHNICAL DATA

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

Cavity	T-61A
Series	1
Capacity	20 L/min.
Maximum Operating Pressure	350 bar
Maximum Valve Leakage at 110 SUS (24 cSt)	80 cc/min.@210 bar
Manual Override Force Requirement	33 N/100 bar @ Port 1
Manual Override Stroke	2,5 mm
Response Time - Typical	50 ms
Switching Frequency	15,000 max. cycles/hr
Solenoid Tube Diameter	19 mm
Valve Hex Size	22,2 mm
Valve Installation Torque	41 - 47 Nm
Seal kit - Cartridge	Buna: 990461007
Seal kit - Cartridge	EPDM: 990461014
Seal kit - Cartridge	Viton: 990461006
Seal and nut kit - Coil	Viton: 990770006
Model Weight	0.37 kg.

NOTES

- Please verify cartridge clearance requirements when choosing a Sun manifold. Different valve controls and coils require different clearances.
- An additional 2.00 inches (50,8 mm) beyond the valve extension is needed for coil installation and removal.

CONFIGURATION OPTIONS

Model Code Example: DNDYMXN

CONTROL	(M)	SPOOL CONFIGURATION	(X)	SEAL MATERIAL	(N)	COIL *
M Manual Override		X -		N Buna-N		No coil
D Twist/Lock (Dual) Manual Override				E EPDM		212 DIN 43650-Form A, 12 VDC
L Twist/Lock (Detent) Manual Override				V Viton		224 DIN 43650-Form A, 24 VDC
T Twist (Momentary) Manual Override						912 Deutsch DT04-2P, 12 VDC
X No Manual Override						924 Deutsch DT04-2P, 24 VDC

* Additional coil options are available

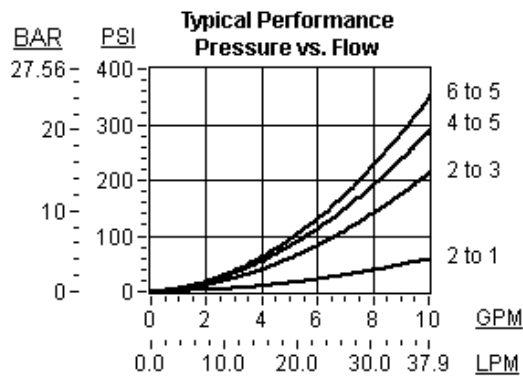
TECHNICAL FEATURES

- 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.
- 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.
- This cartridge has several manual override choices, including no manual override. See the CONFIGURATION section. Please note: Manual override functionality is not compatible with weatherized coils.
- On models equipped with the D or L control, the detent mechanism in the manual override is meant for temporary actuation. The D, L and T manual control assemblies have a mechanical life expectancy of approximately 7,000 cycles.
- 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.
- A wide variety of coil termination and voltage options are available, with and without surge protection. See the CONFIGURATION section.
- 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.
- Coils are interchangeable with other Sun Series 1 solenoid products and can be mounted on the tube in either direction.
- Coil connector options offer ratings up to IP69K. See individual coil product pages for details. Additional weatherized coils and kits are available for more complete environmental protection.
- 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

Typical Performance Limits with Ports Looped

	5 to 6 to 1 to 2 (4 blocked)	5 to 4 to 3 to 2 (6 blocked)	2 to 1 to 6 to 5 (3 blocked)	2 to 3 to 4 to 5 (1 blocked)
5000 psi (350 bar)	2.2 gpm (8 l/min)	2.0 gpm (7,5 l/min)	2.2 gpm (8 l/min)	4.5 gpm (17 l/min)
4000 psi (280 bar)	2.5 gpm (9 l/min)	2.5 gpm (9 l/min)	3.0 gpm (11 l/min)	5.0 gpm (19 l/min)
3000 psi (210 bar)	3.4 gpm (13 l/min)	3.5 gpm (13 l/min)	3.4 gpm (13 l/min)	6.5 gpm (24,5 l/min)
2000 psi (140 bar)	4.8 gpm (18 l/min)	4.5 gpm (17 l/min)	4.0 gpm (15 l/min)	9.0 gpm (34 l/min)
1000 psi (70 bar)	8.5 gpm (32 l/min)	6.5 gpm (24,5 l/min)	5.4 gpm (20 l/min)	10+ gpm (38 l/min)



RELATED MODELS

- [DNDYS](#) 2-position, 6-way, soft shift, solenoid-operated directional spool valve