

# Directional, 6-way Cartridges

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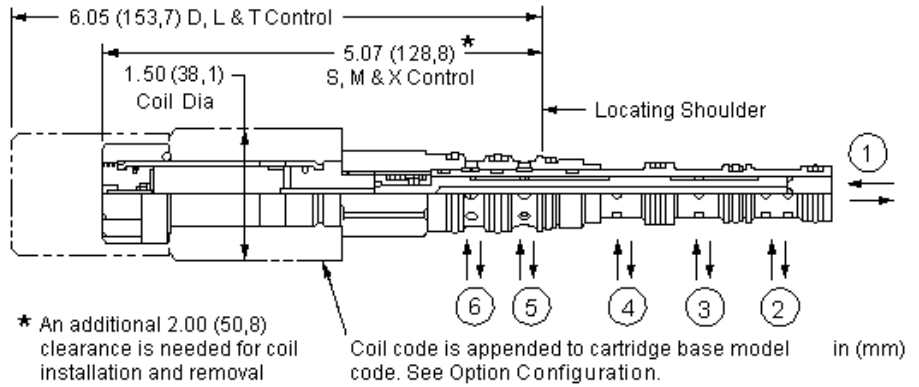
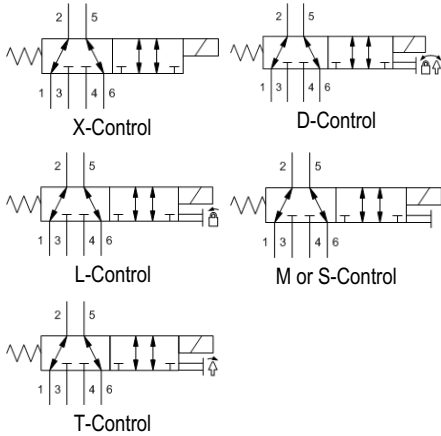
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DNDY	2-position, 6-way, solenoid-operated directional spool valve	.....1
DNDYS	2-position, 6-way, soft shift, solenoid-operated directional spool valve	.....2

Series	Ports	Cavities
<b>Series Z Cartridges</b> 3/8-24 UNF Cartridge Thread 5 mm Valve Hex Size 11 - 14 Nm Valve Installation Torque	3-Port	T-382A
<b>Series P Cartridges</b> M16 Cartridge Thread 22,2 mm Valve Hex Size 27 - 33 Nm Valve Installation Torque	2-Port 2-Port (Deep) 3-Port	T-8A T-8DP T-9A
<b>Series 1C Cartridges</b> 7/8-14 UNF Cartridge Thread 25,4 mm Valve Hex Size 23-26 lbf ft Valve Installation Torque	2-Port (Common) 3-Port (Common) 3-Port (Common) 4-Port (Common)	SC-10-02 SC-10-03 SC-22-03 SC-10-04
<b>Series 0C Cartridges</b> 3/4-16 UNF Cartridge Thread 22,2 mm Valve Hex Size 19-22 lbf ft Valve Installation Torque	2-Port (Common) 3-Port (Common)	SC-08-02 SC-08-03
<b>Series 0 Cartridges</b> M16 Cartridge Thread 19,1 mm Valve Hex Size 25,4 mm Valve Hex Size 27 - 33 Nm Valve Installation Torque	2-Port 2-Port (Deep) 3-Port 3-Port 4-Port	T-162A T-162DP T-150A T-163A T-30A
<b>Series 1 Cartridges</b> M20 Cartridge Thread 22,2 mm Valve Hex Size 41 - 47 Nm Valve Installation Torque	2-Port 2-Port 3-Port 4-Port 4-Port 6-Port	T-10A T-13A T-11A T-21A T-31A T-61A
<b>Series 2 Cartridges</b> 1"-14 UNS Cartridge Thread 28,6 mm Valve Hex Size 61 - 68 Nm Valve Installation Torque	2-Port 2-Port 3-Port 4-Port 4-Port 4-Port (Dual path) 6-Port 6-Port	T-3A T-5A T-2A T-22A T-32A T-52AD T-52A T-62A
<b>Series 3 Cartridges</b> M36 Cartridge Thread 31,8 mm Valve Hex Size 203 - 217 Nm Valve Installation Torque	2-Port 3-Port 4-Port 4-Port 4-Port (Dual path)  6-Port 6-Port	T-16A T-17A T-23A T-33A T-53AD  T-53A T-63A
<b>Series 4 Cartridges</b> M48 Cartridge Thread 41,3 mm Valve Hex Size 474 - 508 Nm Valve Installation Torque	2-Port 2-Port (Undercut) 3-Port 3-Port (Undercut) 4-Port 4-Port (Undercut) 4-Port 4-Port (Dual path)	T-18A T-18AU T-19A T-19AU T-24A T-24AU T-34A T-54AD

6-Port  
6-Port

T-54A  
T-64A



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.

**TECHNICAL DATA**

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

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
Seal kit - Cartridge	Buna: 990461007
Seal kit - Cartridge	EPDM: 990461014
Seal kit - Cartridge	Viton: 990461006

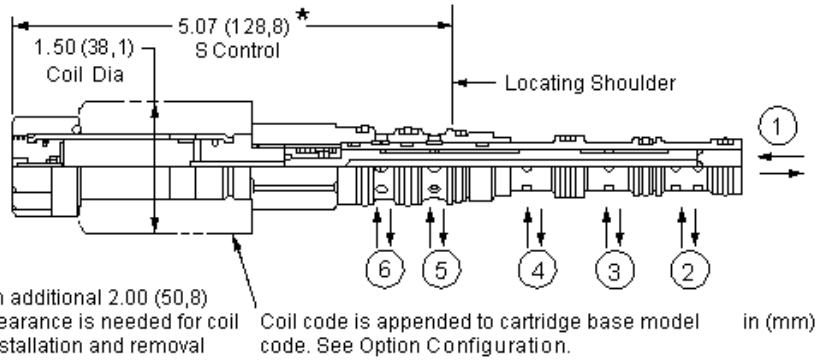
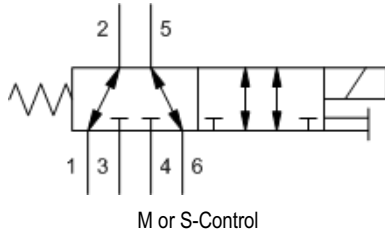
- NOTES**
- Please verify cartridge clearance requirements when choosing a Sun manifold. Different valve controls and coils require different clearances.
  - An additional 2.00 inches (50,8 mm) beyond the valve extension is needed for coil installation and removal.

**CONFIGURATION OPTIONS**

**Model Code Example: DNDYXXN**

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

\* Additional coil options are available



This solenoid-operated 6-way, 2-position cartridge is a direct-acting, balanced spool valve with a soft shift feature. The soft shift feature greatly reduces system shock due to valve actuation. 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.

**TECHNICAL DATA**

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

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
Seal kit - Cartridge	Buna: 990461007
Seal kit - Cartridge	Viton: 990461006

- 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: DNDYSXN**

SPOOL CONFIGURATION	(X) SEAL MATERIAL	(N) COIL *
<b>X -</b>	<b>N</b> Buna-N	<b>No coil</b>
	<b>E</b> EPDM	<b>212</b> DIN 43650-Form A, 12 VDC
	<b>V</b> Viton	<b>224</b> DIN 43650-Form A, 24 VDC
		<b>912</b> Deutsch DT04-2P, 12 VDC
		<b>924</b> Deutsch DT04-2P, 24 VDC

\* Additional coil options are available

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