

Directional, 6-way Cartridges

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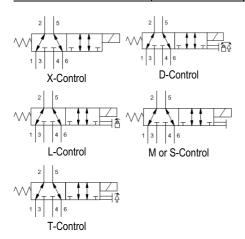


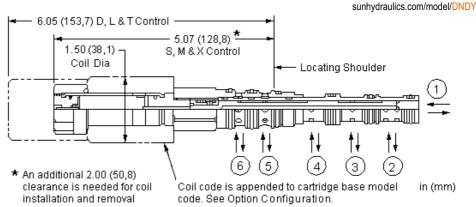
Cavity Information

22,2 mm Valve Hex Size 19-22 lbf ft Valve Installation Torque Series 0 Cartridges M16 Cartridge Thread 19,1 mm Valve Hex Size 25,4 mm Valve Hex Size 27 - 33 Nm Valve Installation Torque Series 1 Cartridges M20 Cartridge Thread 22,2 mm Valve Hex Size 41 - 47 Nm Valve Installation Torque Series 2 Cartridges Series 2 Cartridges 1"-14 UNS Cartridge Thread 28,6 mm Valve Hex Size 61 - 68 Nm Valve Installation Torque Series 3 Cartridges	2-Port 2-Port (Deep) 3-Port 2-Port (Common) 3-Port (Common) 4-Port (Common) 4-Port (Common) 2-Port (Common) 2-Port (Common) 2-Port (Common) 2-Port (Common) 2-Port (Peep) 3-Port 3-Port 4-Port	T-8A T-8DP T-9A SC-10-02 SC-10-03 SC-22-03 SC-10-04 SC-08-02 SC-08-03 T-162A T-162DP T-150A T-163A T-30A T-10A
Series P Cartridges M16 Cartridge Thread #22,2 mm Valve Hex Size #27 - 33 Nm Valve Installation Torque Series 1C Cartridges #38-14 UNF Cartridge Thread #5,4 mm Valve Hex Size #38-26 lbf ft Valve Installation Torque Series 0C Cartridges #34-16 UNF Cartridge Thread #22,2 mm Valve Hex Size #39-22 lbf ft Valve Installation Torque Series 0 Cartridges #416 Cartridge Thread #3,1 mm Valve Hex Size #5,4 mm Valve Hex Size #10 Cartridge Thread #22,2 mm Valve Hex Size #11 - 47 Nm Valve Installation Torque Series 2 Cartridges #14 UNS Cartridge Thread #8,6 mm Valve Hex Size #11 - 68 Nm Valve Installation Torque	2-Port (Deep) 3-Port 2-Port (Common) 3-Port (Common) 4-Port (Common) 2-Port (Common) 2-Port (Common) 2-Port (Common) 3-Port (Common)	T-8DP T-9A SC-10-02 SC-10-03 SC-22-03 SC-10-04 SC-08-02 SC-08-03 T-162A T-162DP T-150A T-163A T-30A
M16 Cartridge Thread 22,2 mm Valve Hex Size 27 - 33 Nm Valve Installation Torque Series 1C Cartridges 7/8-14 UNF Cartridge Thread 25,4 mm Valve Hex Size 23-26 lbf ft Valve Installation Torque Series 0C Cartridges 3/4-16 UNF Cartridge Thread 22,2 mm Valve Hex Size 19-22 lbf ft Valve Installation Torque Series 0 Cartridges M16 Cartridge Thread 19,1 mm Valve Hex Size 25,4 mm Valve Hex Size 27 - 33 Nm Valve Installation Torque Series 1 Cartridges W20 Cartridge Thread 22,2 mm Valve Hex Size 41 - 47 Nm Valve Installation Torque Series 2 Cartridges W20 Cartridge Thread 22,2 mm Valve Hex Size 41 - 47 Nm Valve Installation Torque Series 3 Cartridges W30 Cartridge Thread 28,6 mm Valve Hex Size 61 - 68 Nm Valve Installation Torque	2-Port (Deep) 3-Port 2-Port (Common) 3-Port (Common) 4-Port (Common) 2-Port (Common) 2-Port (Common) 2-Port (Common) 3-Port (Common)	T-8DP T-9A SC-10-02 SC-10-03 SC-22-03 SC-10-04 SC-08-02 SC-08-03 T-162A T-162DP T-150A T-163A T-30A
M16 Cartridge Thread 22,2 mm Valve Hex Size 27 - 33 Nm Valve Installation Torque Series 1C Cartridges 7/8-14 UNF Cartridge Thread 25,4 mm Valve Hex Size 23-26 lbf ft Valve Installation Torque Series 0C Cartridges 3/4-16 UNF Cartridge Thread 22,2 mm Valve Hex Size 19-22 lbf ft Valve Installation Torque Series 0 Cartridges M16 Cartridge Thread 19,1 mm Valve Hex Size 25,4 mm Valve Hex Size 27 - 33 Nm Valve Installation Torque Series 1 Cartridges M20 Cartridge Thread 22,2 mm Valve Hex Size 41 - 47 Nm Valve Installation Torque Series 2 Cartridges M20 Cartridge Thread 22,2 mm Valve Hex Size 41 - 47 Nm Valve Installation Torque Series 3 Cartridges M3 Cartridge Thread 28,6 mm Valve Hex Size 61 - 68 Nm Valve Installation Torque	3-Port 2-Port (Common) 3-Port (Common) 4-Port (Common) 2-Port (Common) 2-Port (Common) 2-Port (Common) 3-Port (Common)	T-9A SC-10-02 SC-10-03 SC-22-03 SC-10-04 SC-08-02 SC-08-03 T-162A T-162DP T-150A T-163A T-30A
22,2 mm Valve Hex Size 27 - 33 Nm Valve Installation Torque Series 1C Cartridges 7/8-14 UNF Cartridge Thread 25,4 mm Valve Hex Size 23-26 lbf ft Valve Installation Torque Series 0C Cartridges 3/4-16 UNF Cartridge Thread 22,2 mm Valve Hex Size 19-22 lbf ft Valve Installation Torque Series 0 Cartridges M16 Cartridge Thread 19,1 mm Valve Hex Size 25,4 mm Valve Hex Size 27 - 33 Nm Valve Installation Torque Series 1 Cartridges M20 Cartridge Thread 22,2 mm Valve Hex Size 41 - 47 Nm Valve Installation Torque Series 2 Cartridges 1"-14 UNS Cartridge Thread 28,6 mm Valve Hex Size 61 - 68 Nm Valve Installation Torque	2-Port (Common) 3-Port (Common) 4-Port (Common) 2-Port (Common) 2-Port (Common) 2-Port (Common) 2-Port 2-Port (Deep) 3-Port 3-Port 4-Port	SC-10-02 SC-10-03 SC-22-03 SC-10-04 SC-08-02 SC-08-03 T-162A T-162DP T-150A T-163A T-30A
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7/8-14 UNF Cartridge Thread 25,4 mm Valve Hex Size 23-26 lbf ft Valve Installation Torque Series OC Cartridges 3/4-16 UNF Cartridge Thread 22,2 mm Valve Hex Size 19-22 lbf ft Valve Installation Torque Series O Cartridges 4/16 Cartridge Thread 19,1 mm Valve Hex Size 25,4 mm Valve Hex Size 27 - 33 Nm Valve Installation Torque Series 1 Cartridges 4/20 Cartridge Thread 22,2 mm Valve Hex Size 4/11 - 47 Nm Valve Installation Torque Series 2 Cartridges 4/11 - 47 Nm Valve Installation Torque Series 3 Cartridge Thread 28,6 mm Valve Hex Size 3/11 - 68 Nm Valve Installation Torque	3-Port (Common) 3-Port (Common) 4-Port (Common) 2-Port (Common) 2-Port (Common) 2-Port 2-Port (Deep) 3-Port 3-Port 4-Port	SC-10-03 SC-22-03 SC-10-04 SC-08-02 SC-08-03 T-162A T-162DP T-150A T-163A T-30A
7/8-14 UNF Cartridge Thread 25,4 mm Valve Hex Size 23-26 lbf ft Valve Installation Torque Series OC Cartridges 3/4-16 UNF Cartridge Thread 22,2 mm Valve Hex Size 19-22 lbf ft Valve Installation Torque Series O Cartridges W16 Cartridges W16 Cartridge Thread 19,1 mm Valve Hex Size 25,4 mm Valve Hex Size 27 - 33 Nm Valve Installation Torque Series 1 Cartridges W20 Cartridge Thread 22,2 mm Valve Hex Size 41 - 47 Nm Valve Installation Torque Series 2 Cartridges Series 2 Cartridges 1"-14 UNS Cartridge Thread 28,6 mm Valve Hex Size 61 - 68 Nm Valve Installation Torque	3-Port (Common) 4-Port (Common) 2-Port (Common) 3-Port (Common) 2-Port 2-Port 2-Port (Deep) 3-Port 3-Port 4-Port	SC-22-03 SC-10-04 SC-08-02 SC-08-03 T-162A T-162DP T-150A T-163A T-30A
25,4 mm Valve Hex Size 23-26 lbf ft Valve Installation Torque Series OC Cartridges 3/4-16 UNF Cartridge Thread 22,2 mm Valve Hex Size 19-22 lbf ft Valve Installation Torque Series O Cartridges W16 Cartridge Thread 19,1 mm Valve Hex Size 25,4 mm Valve Hex Size 27 - 33 Nm Valve Installation Torque Series 1 Cartridges W20 Cartridge Thread 22,2 mm Valve Hex Size 41 - 47 Nm Valve Installation Torque Series 2 Cartridges W20 Cartridge Thread 22,6 mm Valve Installation Torque Series 3 Cartridges W30 Cartridge Thread W31 - 48 Nm Valve Installation Torque	4-Port (Common) 2-Port (Common) 3-Port (Common) 2-Port 2-Port 2-Port (Deep) 3-Port 3-Port 4-Port	SC-10-04 SC-08-02 SC-08-03 T-162A T-162DP T-150A T-163A T-30A
Series 0C Cartridges 3/4-16 UNF Cartridge Thread 22,2 mm Valve Hex Size 19-22 lbf ft Valve Installation Torque Series 0 Cartridges W16 Cartridge Thread 19,1 mm Valve Hex Size 25,4 mm Valve Hex Size 27 - 33 Nm Valve Installation Torque Series 1 Cartridges W20 Cartridge Thread 22,2 mm Valve Hex Size 41 - 47 Nm Valve Installation Torque Series 2 Cartridges 1"-14 UNS Cartridge Thread 28,6 mm Valve Hex Size 61 - 68 Nm Valve Installation Torque	2-Port (Common) 3-Port (Common) 2-Port 2-Port (Deep) 3-Port 3-Port 4-Port	SC-08-02 SC-08-03 T-162A T-162DP T-150A T-163A T-30A
3/4-16 UNF Cartridge Thread 22,2 mm Valve Hex Size 19-22 lbf ft Valve Installation Torque Series 0 Cartridges M16 Cartridge Thread 19,1 mm Valve Hex Size 25,4 mm Valve Hex Size 27 - 33 Nm Valve Installation Torque Series 1 Cartridges M20 Cartridge Thread 22,2 mm Valve Hex Size 41 - 47 Nm Valve Installation Torque Series 2 Cartridges Series 2 Cartridges 1"-14 UNS Cartridge Thread 28,6 mm Valve Hex Size 61 - 68 Nm Valve Installation Torque Series 3 Cartridges	2-Port (Common) 2-Port (Deep) 3-Port 3-Port 4-Port	T-162A T-162DP T-150A T-163A T-30A
3/4-16 UNF Cartridge Thread 22,2 mm Valve Hex Size 19-22 lbf ft Valve Installation Torque Series 0 Cartridges M16 Cartridge Thread 19,1 mm Valve Hex Size 25,4 mm Valve Hex Size 27 - 33 Nm Valve Installation Torque Series 1 Cartridges M20 Cartridge Thread 22,2 mm Valve Hex Size 41 - 47 Nm Valve Installation Torque Series 2 Cartridges 1"-14 UNS Cartridge Thread 28,6 mm Valve Hex Size 61 - 68 Nm Valve Installation Torque Series 3 Cartridges M36 Cartridge Thread	2-Port 2-Port (Deep) 3-Port 3-Port 4-Port	T-162A T-162DP T-150A T-163A T-30A
22,2 mm Valve Hex Size 19-22 lbf ft Valve Installation Torque Series 0 Cartridges M16 Cartridge Thread 19,1 mm Valve Hex Size 25,4 mm Valve Hex Size 27 - 33 Nm Valve Installation Torque Series 1 Cartridges M20 Cartridge Thread 22,2 mm Valve Hex Size 41 - 47 Nm Valve Installation Torque Series 2 Cartridges 1"-14 UNS Cartridge Thread 28,6 mm Valve Hex Size 61 - 68 Nm Valve Installation Torque Series 3 Cartridges	2-Port (Deep) 3-Port 3-Port 4-Port	T-162DP T-150A T-163A T-30A
Series 0 Cartridges M16 Cartridge Thread 19,1 mm Valve Hex Size 25,4 mm Valve Hex Size 227 - 33 Nm Valve Installation Torque Series 1 Cartridges M20 Cartridge Thread 22,2 mm Valve Hex Size 41 - 47 Nm Valve Installation Torque Series 2 Cartridges 1"-14 UNS Cartridge Thread 28,6 mm Valve Hex Size 61 - 68 Nm Valve Installation Torque Series 3 Cartridges	2-Port (Deep) 3-Port 3-Port 4-Port	T-162DP T-150A T-163A T-30A
M16 Cartridge Thread 19,1 mm Valve Hex Size 25,4 mm Valve Hex Size 27 - 33 Nm Valve Installation Torque Series 1 Cartridges M20 Cartridge Thread 22,2 mm Valve Hex Size 41 - 47 Nm Valve Installation Torque Series 2 Cartridges 1"-14 UNS Cartridge Thread 28,6 mm Valve Hex Size 61 - 68 Nm Valve Installation Torque Series 3 Cartridges	2-Port (Deep) 3-Port 3-Port 4-Port	T-162DP T-150A T-163A T-30A
M16 Cartridge Thread 19,1 mm Valve Hex Size 25,4 mm Valve Hex Size 27 - 33 Nm Valve Installation Torque Series 1 Cartridges M20 Cartridge Thread 22,2 mm Valve Hex Size 41 - 47 Nm Valve Installation Torque Series 2 Cartridges 1"-14 UNS Cartridge Thread 28,6 mm Valve Hex Size 61 - 68 Nm Valve Installation Torque Series 3 Cartridges	3-Port 3-Port 4-Port	T-150A T-163A T-30A
19,1 mm Valve Hex Size 25,4 mm Valve Hex Size 27 - 33 Nm Valve Installation Torque Series 1 Cartridges M20 Cartridge Thread 22,2 mm Valve Hex Size 41 - 47 Nm Valve Installation Torque Series 2 Cartridges 1"-14 UNS Cartridge Thread 28,6 mm Valve Hex Size 61 - 68 Nm Valve Installation Torque Series 3 Cartridges	3-Port 4-Port	T-163A T-30A
25,4 mm Valve Hex Size 27 - 33 Nm Valve Installation Torque Series 1 Cartridges M20 Cartridge Thread 22,2 mm Valve Hex Size 41 - 47 Nm Valve Installation Torque Series 2 Cartridges 1"-14 UNS Cartridge Thread 28,6 mm Valve Hex Size 61 - 68 Nm Valve Installation Torque Series 3 Cartridges	4-Port	T-30A
Series 1 Cartridges M20 Cartridge Thread 22,2 mm Valve Hex Size 41 - 47 Nm Valve Installation Torque Series 2 Cartridges 1"-14 UNS Cartridge Thread 28,6 mm Valve Hex Size 61 - 68 Nm Valve Installation Torque Series 3 Cartridges		
M20 Cartridge Thread 22,2 mm Valve Hex Size 41 - 47 Nm Valve Installation Torque Series 2 Cartridges 1"-14 UNS Cartridge Thread 28,6 mm Valve Hex Size 61 - 68 Nm Valve Installation Torque Series 3 Cartridges	2-Port	T-10A
M20 Cartridge Thread 22,2 mm Valve Hex Size 41 - 47 Nm Valve Installation Torque Series 2 Cartridges 1"-14 UNS Cartridge Thread 28,6 mm Valve Hex Size 61 - 68 Nm Valve Installation Torque Series 3 Cartridges		
22,2 mm Valve Hex Size 41 - 47 Nm Valve Installation Torque Series 2 Cartridges 1"-14 UNS Cartridge Thread 28,6 mm Valve Hex Size 61 - 68 Nm Valve Installation Torque Series 3 Cartridges	2-Port	T-13A
Series 2 Cartridges 1"-14 UNS Cartridge Thread 28,6 mm Valve Hex Size 61 - 68 Nm Valve Installation Torque Series 3 Cartridges	3-Port 4-Port	T-11A T-21A
1"-14 UNS Cartridge Thread 28,6 mm Valve Hex Size 61 - 68 Nm Valve Installation Torque Series 3 Cartridges	4-Port	T-31A
1"-14 UNS Cartridge Thread 28,6 mm Valve Hex Size 61 - 68 Nm Valve Installation Torque Series 3 Cartridges	6-Port	T-61A
1"-14 UNS Cartridge Thread 28,6 mm Valve Hex Size 61 - 68 Nm Valve Installation Torque Series 3 Cartridges	2-Port	T-3A
28,6 mm Valve Hex Size 61 - 68 Nm Valve Installation Torque Series 3 Cartridges	2-Port	T-5A
Series 3 Cartridges	3-Port	T-2A
•	4-Port 4-Port	T-22A T-32A
•	4-Port (Dual path)	T-52AD
•	6-Port	T-52A
•	6-Port	T-62A
•	2-Port	T-16A
	3-Port	T-17A
31,8 mm Valve Hex Size	4-Port	T-23A
203 - 217 Nm Valve Installation Torque	4-Port 4-Port (Dual path)	T-33A T-53AD
	6-Port	T-53AD
		T-63A
Covice 4 Contriduce	6-Port	T-18A
Series 4 Cartridges		T-18AU
M48 Cartridge Thread	2-Port	1 10/10
41,3 mm Valve Hex Size 474 - 508 Nm Valve Installation Torque		T-19A
TIT JOO IVIII VAIVE IIISIAIIAIIOII TOIYUE	2-Port 2-Port (Undercut)	
	2-Port 2-Port (Undercut) 3-Port 3-Port (Undercut) 4-Port	T-19A T-19AU T-24A
	2-Port 2-Port (Undercut) 3-Port 3-Port (Undercut)	T-19A T-19AU

6-Port T-54A 6-Port 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 *
X No Manual Override		Χ -		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 Overrid	е			V Viton		224 DIN 43650-Form A, 24 VDC
M Manual Override						912 Deutsch DT04-2P, 12 VDC
T Twist (Momentary) Manual Override	Э					924 Deutsch DT04-2P, 24 VDC
						* Additional coil options are available

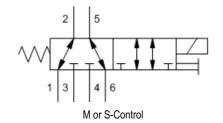
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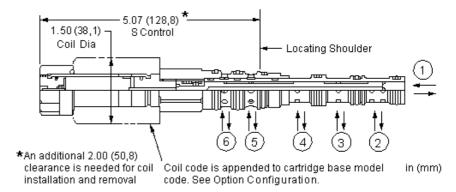
2-position, 6-way, soft shift, solenoid-operated directional spool valve

SERIES 1 / CAPACITY: 20 L/min. / CAVITY: T-61A



sunhydraulics.com/model/DNDYS





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

SP	00	L CO	NFIG	URA	TION

(X) SEAL MATERIAL

(N) COIL*

N	Buna-N
 Е	EPDM
٧	Viton

No coil
212 DIN 43650-Form A, 12 VDC
224 DIN 43650-Form A, 24 VDC
912 Deutsch DT04-2P, 12 VDC
924 Deutsch DT04-2P, 24 VDC
* Additional coil options are available

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