

4-way, 3-position, solenoid-operated directional spool valve

Capacity:
5 gpm (20 L/min.)

Functional Group:

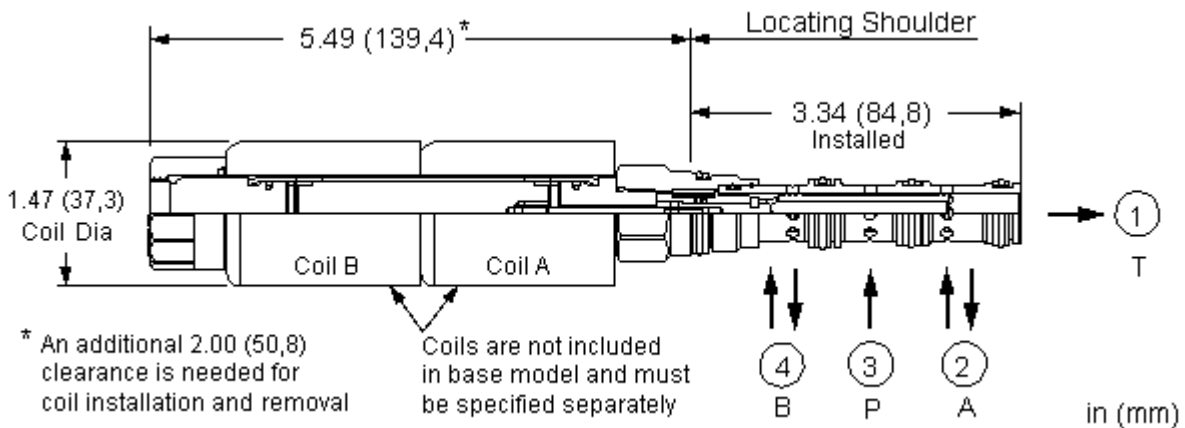
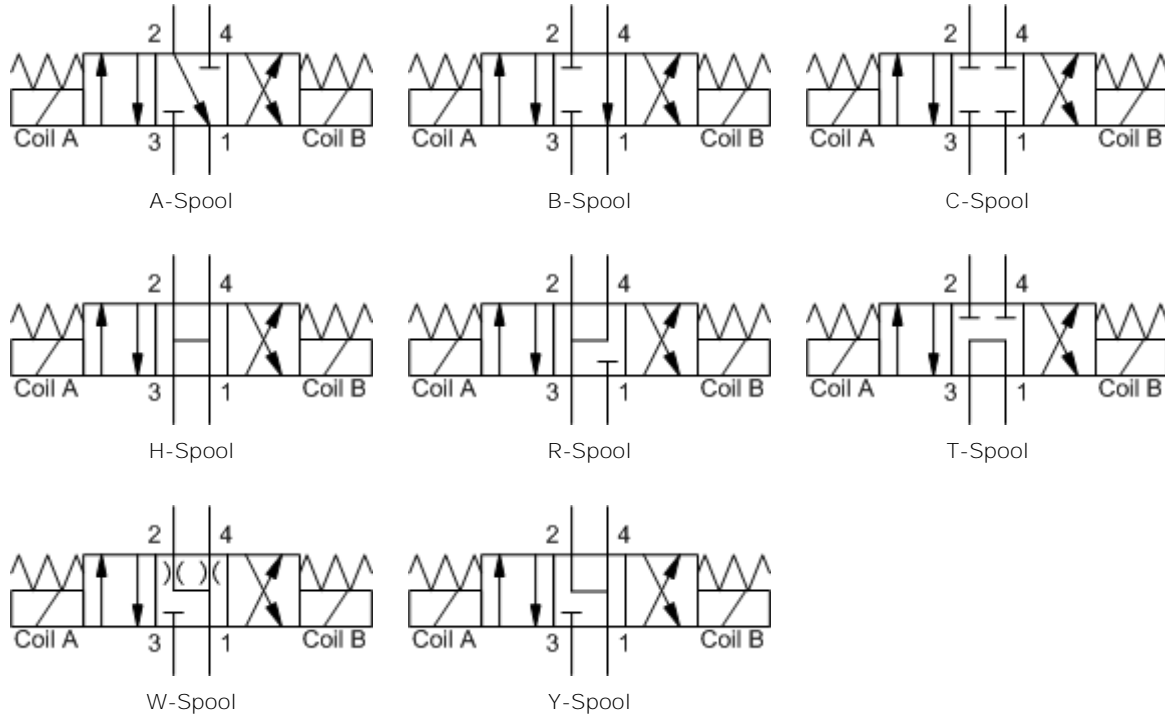
Products : Cartridges : Directional : 4 Way : 3 Position, 4 Way, Solenoid Operated

Model:

DNDC

Product Description

This direct acting, solenoid-operated, 4-way, 3-position spool valve is spring centered to the neutral position. When coil A is energized, the flow is from port 3 (P) to port 2 (A) and from port 4 (B) to port 1 (T). When coil B is energized, the flow is from port 3 to port 4 and from port 2 to port 1.



Technical Features

- The solenoid tube assembly is fatigue rated for 5000
- The solenoid's unique magnetic design results in a

psi (350 bar) service.

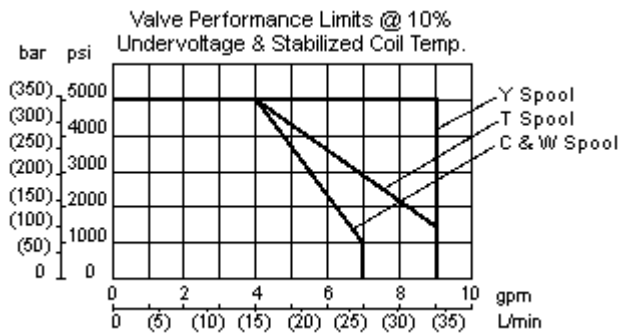
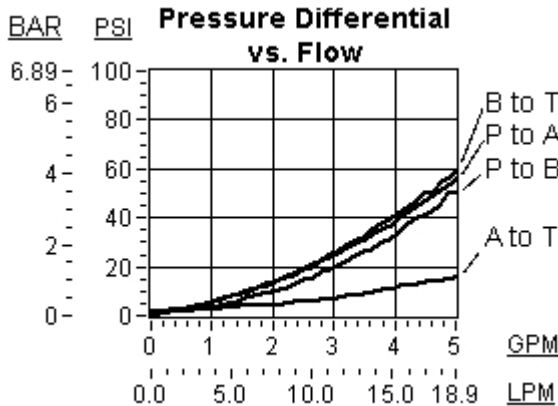
- This valve is direct actuated and requires no minimum hydraulic pressure for operation.
- In differential flow circuits, the higher return flow should be directed through port 2 (A) to port 1 (T).
- This valve utilizes a wet armature design. This means that the working fluid surrounds the armature 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.

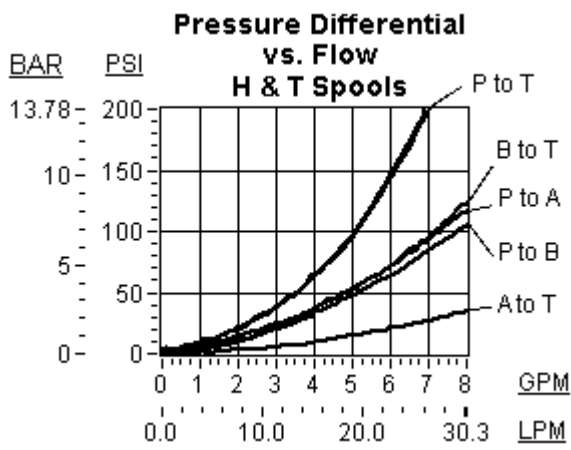
high efficiency solenoid, yielding high spool actuating force per Watt expended, leading to reliable valve shifting.

- Coils are interchangeable with other Sun Series 1 solenoid products and can be mounted on the tube in either direction.
- Depending on the connector, coils are rated up to IP69 thereby eliminating the need for an additional weatherization kit. See "Coil Technical Information" for more details.
- 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.

Technical Data

	U.S. Units	Metric Units
Model Weight	0.98 lb.	0.44 kg.
Cavity	T-31A	
Capacity	5 gpm	20 L/min.
Maximum Operating Pressure	5000 psi	350 bar
Maximum Valve Leakage at 110 SUS (24 cSt)	10 in ³ /min.@3000 psi	160 cc/min.@210 bar
Response Time - Typical	50 ms	
Series (from Cavity)	Series 1	
Switching Frequency	15000 cycles/hr	
Solenoid Tube Diameter	.75 in.	19 mm
Valve Hex Size	7/8 in.	22.2 mm
Valve Installation Torque	30 - 35 lbf ft	45 - 50 Nm
Seal Kits - Cartridge	Buna: 990-431-007	
Seal Kits - Cartridge	Viton: 990-431-006	
Seal Kits - Coil	Viton: 990-770-006	





DNDC-XCN

Control

Spool Configuration

External Material/Seal Material

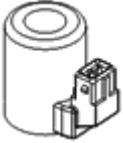
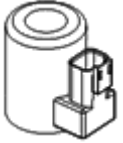
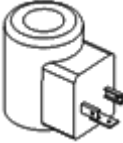
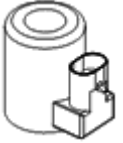
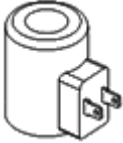

Standard Options

X No Manual Override

A A to T Center
 B B to T Center
 C Blocked Center
 H Open Center
 R Regen Center
 T Tandem Center
 W A and B Bleed to T Center
 Y A and B to T Center

N Buna-N
 V Viton

Standard Coil Options (View All)

					
AMP Junior Timer	Deutsch DT04-2P	DIN 43650 4 pin (Hirschman)	Metri-Pack	SAE J858A	Twin Lead

*** no coil

524	SAE J858A 24 VDC	812	Metri-Pack 12 VDC
211	DIN 43650 4 pin (Hirschman) 115 VAC	528	SAE J858A 28 VDC
814	Metri-Pack 14 VDC		
212	DIN 43650 4 pin (Hirschman) 12 VDC	536	SAE J858A 36 VDC
824	Metri-Pack 24 VDC		
214	DIN 43650 4 pin (Hirschman) 14 VDC	612	AMP Junior Timer 12 VDC
828	Metri-Pack 28 VDC		
223	DIN 43650 4 pin (Hirschman) 230 VAC	614	AMP Junior Timer 14 VDC
836	Metri-Pack 36 VDC		

224	DIN 43650 4 pin (Hirschman) 24 VDC	624	AMP Junior Timer 24 VDC	848	Metri-Pack 48 VDC
228	DIN 43650 4 pin (Hirschman) 28 VDC	628	AMP Junior Timer 28 VDC	912	Deutsch DT04-2P 12 VDC
236	DIN 43650 4 pin (Hirschman) 36 VDC	636	AMP Junior Timer 36 VDC	914	Deutsch DT04-2P 14 VDC
248	DIN 43650 4 pin (Hirschman) 48 VDC	712	Twin Lead 12 VDC	924	Deutsch DT04-2P 24 VDC
297	DIN 43650 4 pin (Hirschman) 24 VAC	724	Twin Lead 24 VDC	928	Deutsch DT04-2P 28 VDC
298	DIN 43650 4 pin (Hirschman) 220 VDC	728	Twin Lead 28 VDC	936	Deutsch DT04-2P 36 VDC
299	DIN 43650 4 pin (Hirschman) 127 VDC	736	Twin Lead 36 VDC	948	Deutsch DT04-2P 48 VDC
514	SAE J858A 14 VDC				

Embedded Coil Options (Click Here)

2E12V	DIN 43650 4 pin (Hirschman) programmable via IR link coil/power saver 12 VDC 0-10V	4E12V	Deutsch DT04-6P programmable via IR link coil/power saver 12 VDC 0-10V	4E24V	Deutsch DT04-6P programmable via IR link coil/power saver 24 VDC 0-10V
2E24V	DIN 43650 4 pin (Hirschman) programmable via IR link coil/power saver 24 VDC 0-10V				

Additional Options(Click Here)

Additional Coils

512	SAE J858A 12 VDC	71219	Twin Lead to Delphi Weather-Pack Connector, 9 inch lead length, 12 VDC	72419	Twin Lead to Delphi Weather-Pack Connector, 9 inch lead length 24 VDC
548	SAE J858A 48 VDC	714	Twin Lead 14 VDC	748	Twin Lead 48 VDC
648	AMP Junior Timer 48 VDC				

Stainless material/seal options not available for this model

