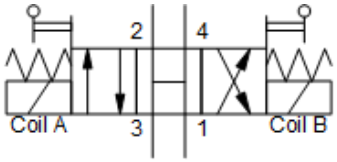
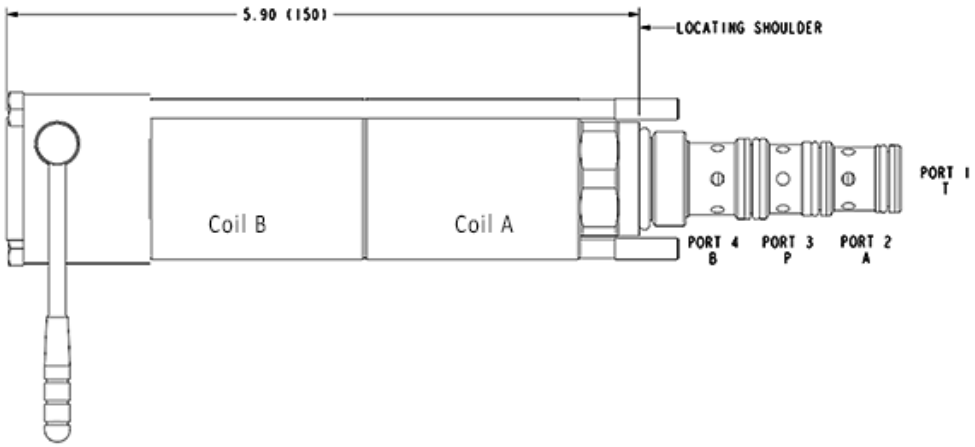
MODEL
DNUC

4-way, 3-position, solenoid-operated directional spool valve, 3600 psi (250 bar) - common cavity
SERIES 1C / CAPACITY: 28 L/min. / CAVITY: SC-10-04

sunhydraulics.com/model/DNUC



H-Spool



CONFIGURATION

T	Control	Manual Override
H	Spool Configuration	Open Center
N	Seal Material	Buna-N
924D	Coil	Deutsch DT04-2P, 24 VDC, with transient voltage suppression (TVS) diodes

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 (B) and from port 4 (A) 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 DATA

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

Cavity	SC-10-04
Series	1C
Capacity	28 L/min.
Maximum Operating Pressure	250 bar
Typical Valve Leakage at 110 SUS (24cSt)	180 cc/min.@250 bar
Response Time - Typical	50 ms
Switching Frequency	15,000 max. cycles/hr
Solenoid Tube Diameter	19 mm
Valve Hex Size	27 mm
Coil Nut Torque	4,8 - 5,3 Nm
Valve Installation Torque	38 - 43 Nm
Model Weight	1.91 kg.

NOTES

The two coils used in this assembly are interchangeable with one another, but once installed and wired, the coil closest to the hex body is considered Coil A, and the coil closest to the coil nut is Coil B.

CONFIGURATION OPTIONS

Model Code Example: DNUCArray

CONTROL (T)	SPOOL CONFIGURATION (H)	SEAL MATERIAL (N)	COIL * (924D)
T Manual Override	**H** Open Center	**N** Buna-N	**924D** Deutsch DT04-2P, 24 VDC, with transient voltage suppression (TVS) diodes
X No Manual Override	**C** Blocked Center		No coil
	T Tandem Center		
	W A and B Bleed to T Center		

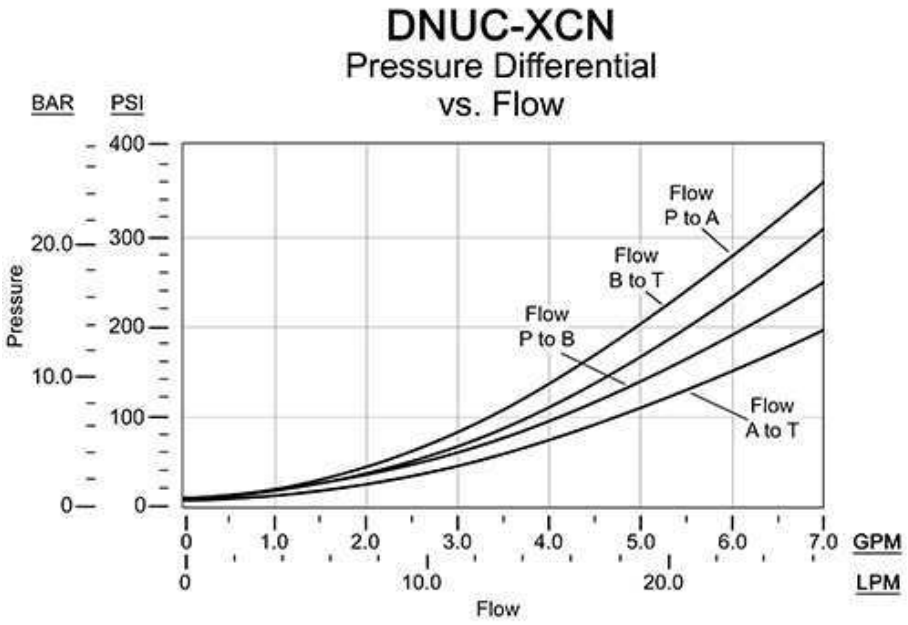
* Additional coil options are available

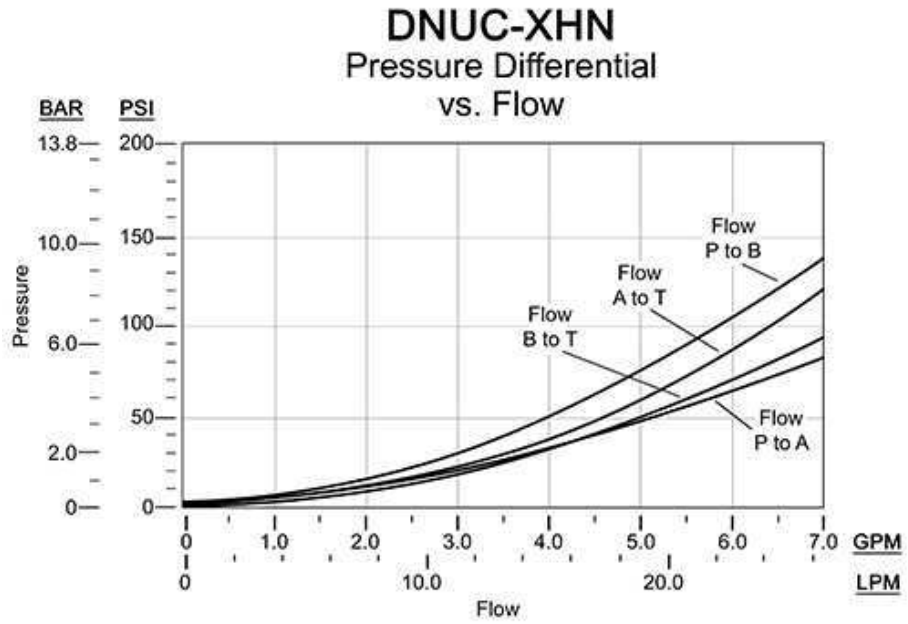
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TECHNICAL FEATURES

- Maximum working pressure at Port 1 is 1000 psi (70 bar). Max working pressure on all other ports is 3600 psi (250 bar).
- This valve is direct actuated and requires no minimum hydraulic pressure for operation.
- The valve is available with a manual override option (T control). This hand-actuated lever option is also rated to a maximum of 1000 psi (70 bar) at Port 1 and can be actuated under pressure. Rotating the lever away from the manifold block will connect port 3 to port 4 and port 2 to port 1. Rotating the lever towards the manifold block will connect port 3 to port 2 and port 4 to port 1.
- The manual override option includes two mounting bolts which fasten the mechanism onto the valve via mounting holes on the manifold. For details on the mounting holes, refer to the product page of any Sun manifold configured with an SC-10-04 cavity (i.e. model code: JPA).
- Coil connector options offer ratings up to IP67. See individual coil product pages for details.
- The cartridge installation torque of 30 lbf ft (40 Nm) is required for best performance.
- 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.
- Coils can be mounted on the tube in either direction.

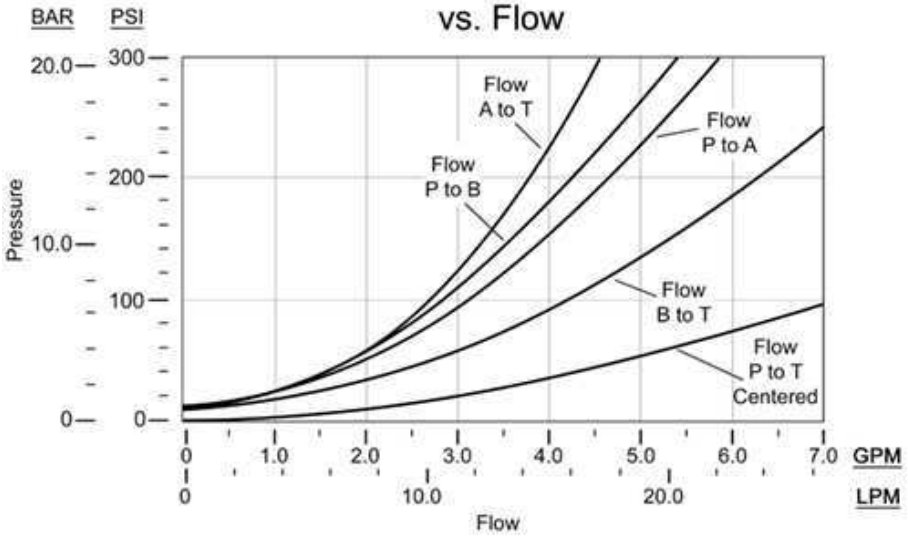
PERFORMANCE CURVES



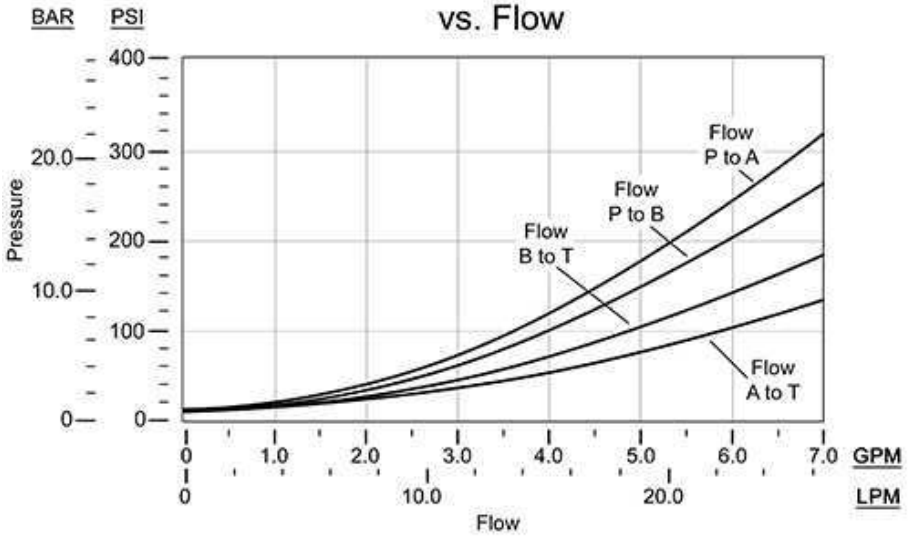


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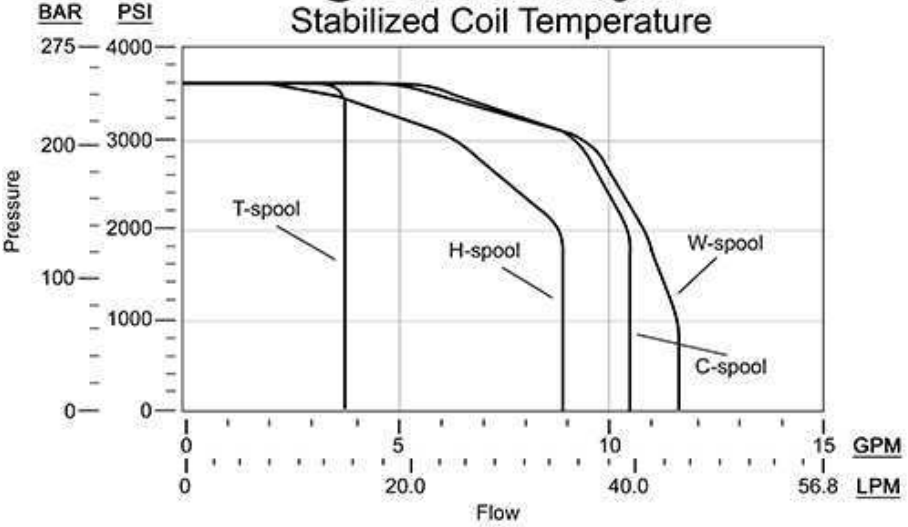
DNUC-XTN
Pressure Differential
vs. Flow



DNUC-XWN
Pressure Differential
vs. Flow

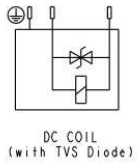


DNUC
Performance Limits
@ 10% Undervoltage &
Stabilized Coil Temperature

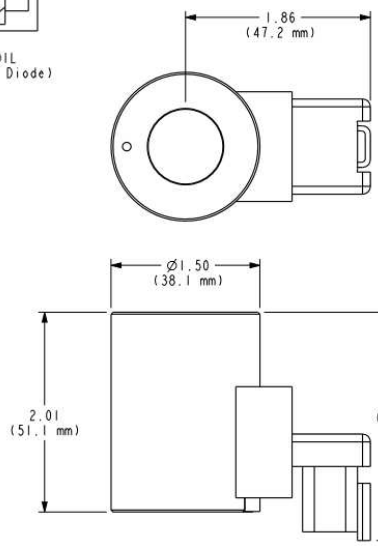


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CONFIGURATION



TECHNICAL DATA

Operating Temperature Range	-4 to 215 °F
Arc Suppression (TVS)	Included
Power Consumption (cold) - at rated voltage	24 Watts
Maximum Ambient Temperature	40 °C
Voltage/Frequency	24 VDC
Operating Voltage Range	+/- 10% nominal
Duty Cycle Rating	100 %
Connector	Deutsch DT04-2P
Solenoid Tube Diameter	19 mm
Coil Nut Torque	44 lbf in.
Model Weight	0.28 kg.

PROPORTIONAL PERFORMANCE DATA

Resistance at 20° C	24.0 ohms ±10%
Maximum Current (100% Duty Cycle at Maximum Ambient Temperature)	600 mA

USED WITH

DNUC

TECHNICAL FEATURES

- Power cable with mating connector is required and is not included with product.
- This coil includes a transient voltage suppression (TVS) diode.
- Coil windings utilize Class F, (311° F [155 °C] rated) magnet wire.
- IP rating for this coil is IP67.
- The coil is magnetically symmetrical and can be mounted in either direction on the solenoid tube without affecting performance.

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