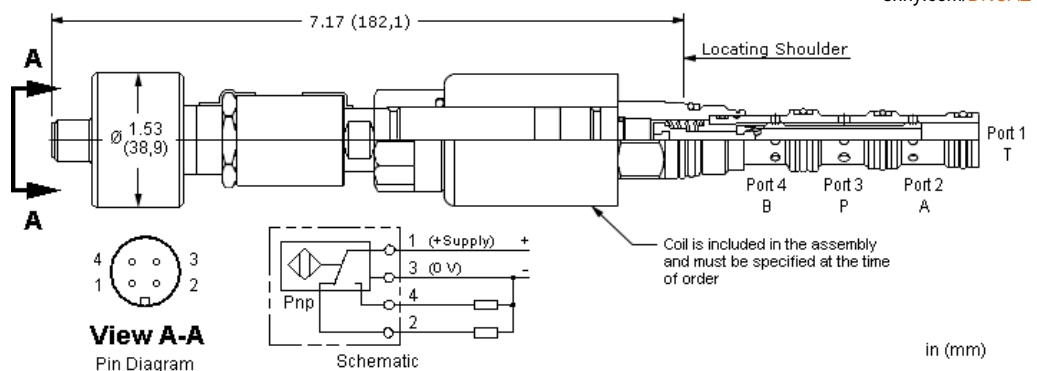
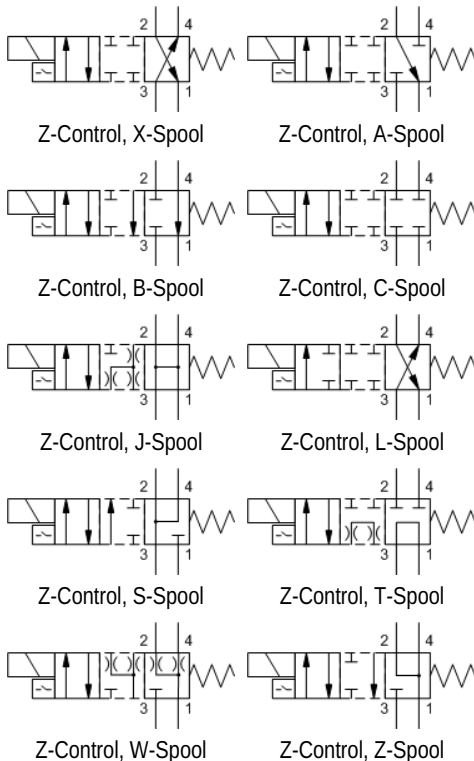




This solenoid-operated, 4-way, 2-position cartridge is a direct-acting, balanced spool directional valve. The transition between positions is closed. The closed transition greatly reduces the loss of oil when shifting which can be of particular importance in pilot control circuits.

The position switch provides confirmation that the valve is in the spring biased position.

TECHNICAL DATA

Maximum Operating Pressure	350 bar
Response Time - Typical	50 ms
Maximum Valve Leakage at 110 SUS (24 cSt)	160 cc/min.@210 bar
Switching Frequency	15000 cycles/hr
Seal kit - Cartridge	Buna: 990-431-007
Seal kit - Cartridge	Viton: 990-431-006

CONFIGURATION OPTIONS

Model Code Example: DNCAZXN224

SPOOL CONFIGURATION	(X)	SEAL MATERIAL	(N)	COIL *	(224)
X Cross, Shift to Through		N Buna-N		224 DIN 43650 3 pin (Hirschman), 24 VDC	
C Closed, Shift to Through		V Viton		212 DIN 43650 3 pin (Hirschman), 12 VDC	
A A to T, Shift to Through				912 Deutsch DT04-2P, 12 VDC	
B B to T, Shift to Through				924 Deutsch DT04-2P, 24 VDC	
J Open, Shift to Through					
L Cross, Shift to P to A, B and T Blocked					
S Regen, Shift to Through					
T Tandem, Shift to Through					
W A and B Bleed to T, Shift to Through					
Z Motor, Shift to Through					

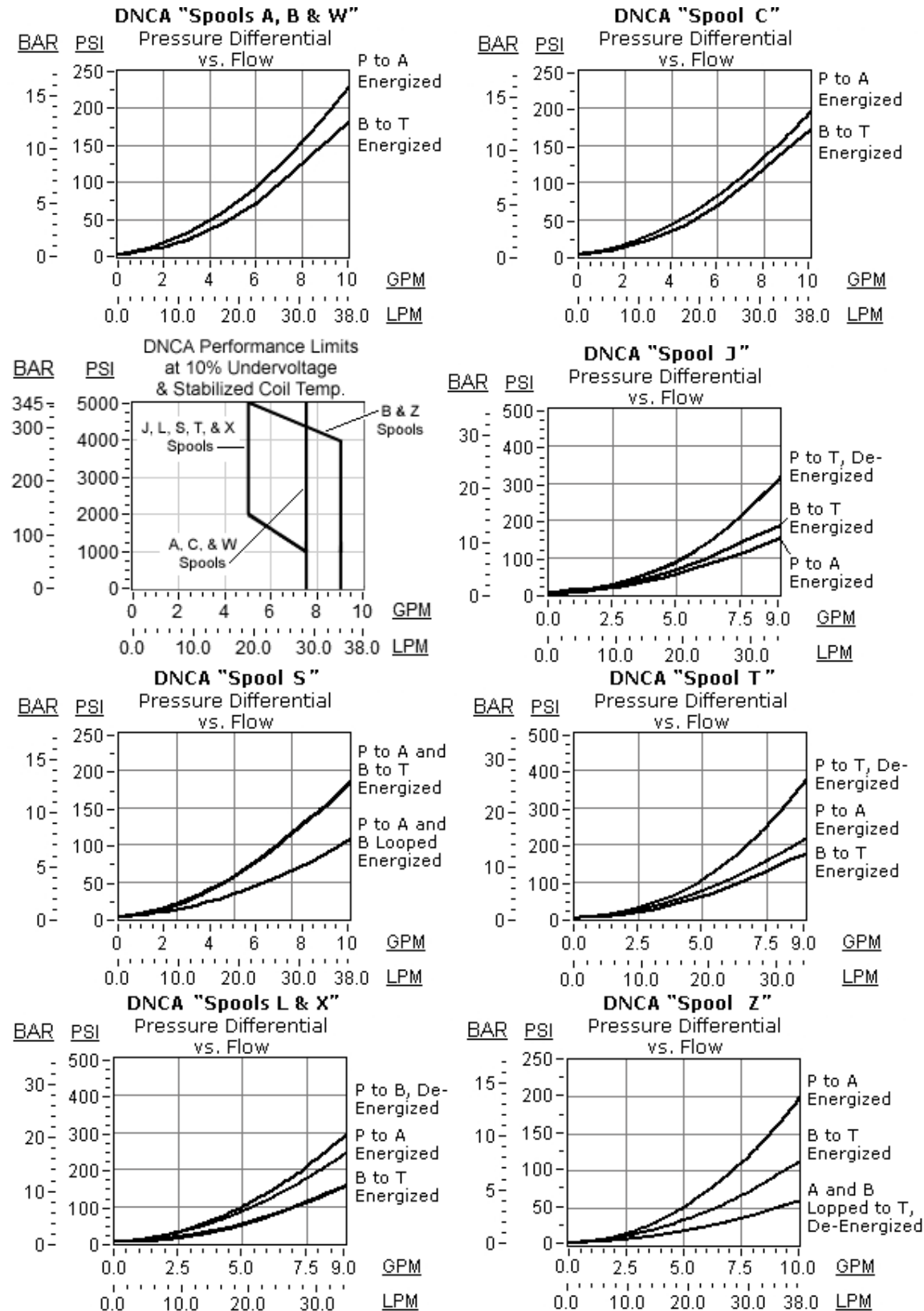
* Additional coil options are available

TECHNICAL FEATURES

- A coil must be ordered with this cartridge. This cartridge is supplied as a sealed, factory set unit and is not field serviceable. If the assembly requires changes or service it needs to be returned to the factory. Any tampering will violate the product warranty.
- Position switch is CE approved.
- When torquing this cartridge into its cavity, a crow's foot wrench or similar will be required since the position switch precludes the use of a deep socket wrench.
- Valve capacity is based on port 3 as the inlet and port 1 as the tank. Although reverse flow is possible, the same performance cannot be guaranteed and is not recommended.
- 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.
- 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.
- 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



RELATED MODELS

- [DNCA](#) 4-way, 2-position, solenoid-operated directional spool valve with closed transition