



This valve is a 4-way, 3-position proportional directional valve. Work ports 2 and 4 are drained to 5 in the center position and port 3 is closed. Pilot pressure at port 1 opposes the spring and creates a variable metering orifice between ports 3 and 4 that is proportional to the pressure at 1. Piloting 6 opens 3 to 2. The force balance of the flow forces, spring and pilot pressure results in a degree of partial self-compensation as the load pressure changes. Pressure at ports 1 and 6 directly oppose each other.

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

Cavity	T-52A
Series	2
Capacity	18 gpm
Maximum Operating Pressure	5000 psi
Pilot Pressure Required to Shift Valve	50 - 120 psi
Pilot Pressure Required for Full Shift at Rated Flow	290 - 340 psi
Maximum Valve Leakage at 110 SUS (24 cSt)	2.7 in <sup>3</sup> /min. @500 psi
Pilot Volume Displacement	.04 in <sup>3</sup>
Hysteresis at 50% command	±35%
Compensated Flow (using LPJCXHN)	17 - 21 gpm
Valve Hex Size	1 1/8 in.
Valve Installation Torque	45 - 50 lbf ft
Model Weight	1.06 lb.
Seal kit - Cartridge	Buna: 990-052-007
Seal kit - Cartridge	Viton: 990-052-006

# OPTION SELECTION EXAMPLE: FTDCXYN

CONTROL	(X) SPOOL CONFIGURATION	(Y) SEAL MATERIAL	(N) MATERIAL/COATING
X Not Adjustable	Y A and B to T Center W A and B Bleed to T Center	N Buna-N V Viton	Standard Material/Coating IAP Stainless Steel, Passivated

## TECHNICAL FEATURES

- Pilot ports 1 and 6 will accept 5000 psi (350 bar), however, pressures over 500 psi (35 bar) do not increase flow since at this point the spool will be fully shifted.
- These valves may be pressure compensated by an external, modulating, logic element. Use LR\_C-XHN for a bypass circuit or LP\_C-XHN for a restrictive circuit.
- The valve provides a degree of self-compensation and may be used as a flow control. To increase the accuracy of flow control, an external, modulating, logic element can be used to maintain a constant flow over a wider range of flows and pressures. See performance curves for additional information.
- Pressure at ports 1 and 6 directly oppose each other.
- 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

