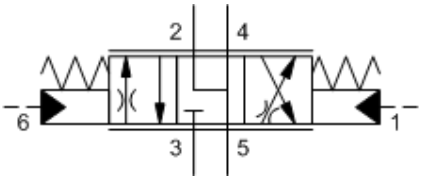
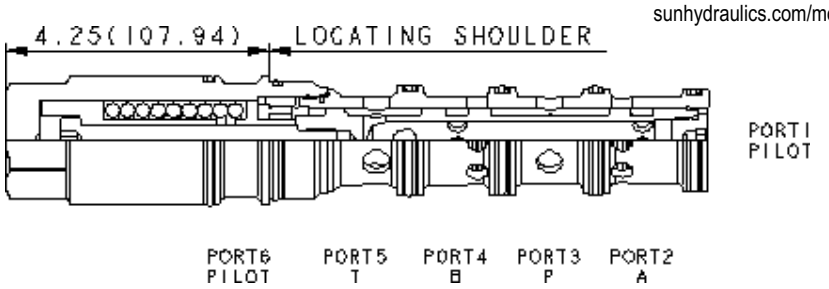
MODEL
FTHC

4-way, 3-position, meter in proportional directional valve
SERIES 4 / CAPACITY: 80 gpm / CAVITY: T-54A

sunhydraulics.com/model/FTHC



Y-Spool



CONFIGURATION

X	Control	Not Adjustable
Y	Spool Configuration	A and B to T Center
N	Seal Material	Buna-N
(none)	Material/Coating	

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-54A
Series	4
Capacity	80 gpm
Maximum Operating Pressure	5000 psi
Pilot Pressure Required to Shift Valve	50 - 120 psi
Maximum Valve Leakage at 110 SUS (24 cSt)	14 in³/min.@1000 psi
Pilot Volume Displacement	.26 in³
Maximum Pilot Pressure	500 psi
Hysteresis at 50% command	±35%
Valve Hex Size	1 5/8 in.
Valve Installation Torque	350 - 375 lbf ft
Seal kit - Cartridge	Buna: 990054007
Seal kit - Cartridge	Polyurethane: 990054002
Seal kit - Cartridge	Viton: 990054006
Model Weight	5.67 lb.

CONFIGURATION OPTIONS

Model Code Example: FTHCXYN

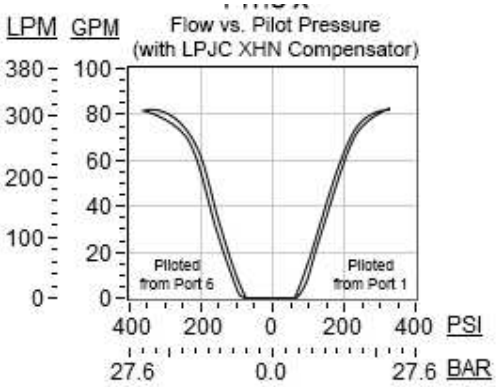
CONTROL (X)	SPOOL CONFIGURATION (Y)	SEAL MATERIAL (N)	MATERIAL/COATING
X Not Adjustable	**Y** A and B to T Center	**N** Buna-N	Standard Material/Coating
	W A and B Bleed to T Center	**V** Viton	**/AP** Stainless Steel, Passivated

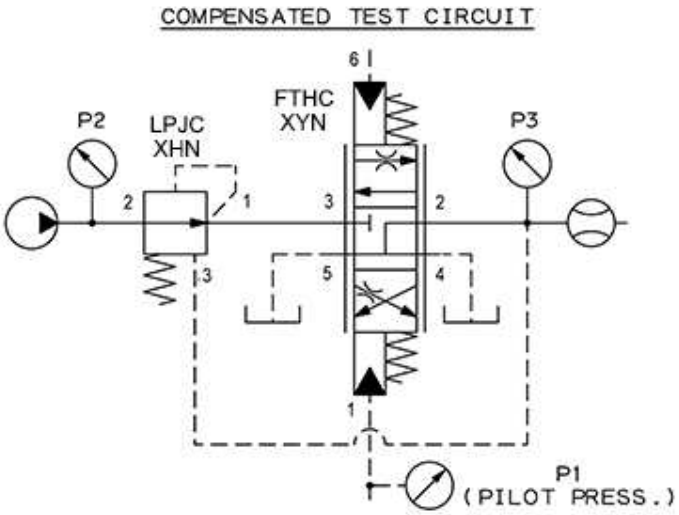
TECHNICAL FEATURES

- 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

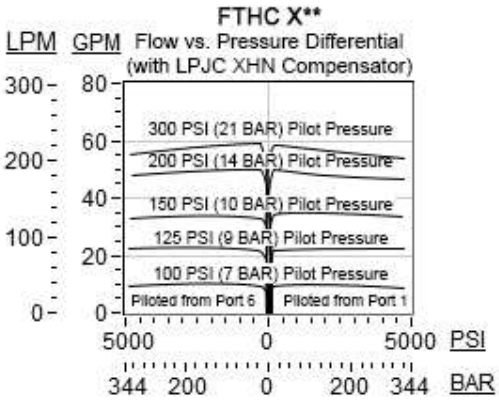
FTHC X**

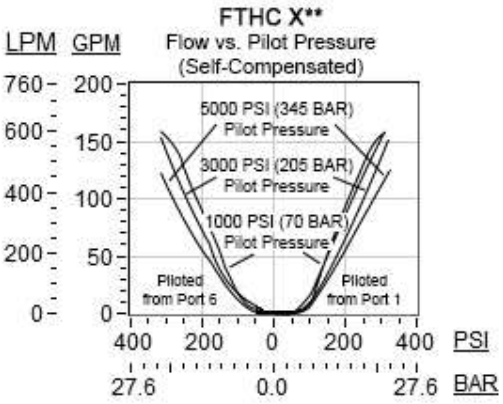


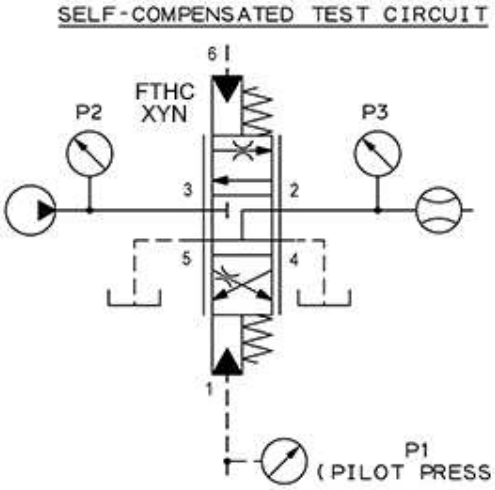


PILOT PRESSURE IS MEASURED AT EITHER PORT 1 OR 6, WHICHEVER IS PILOTED.

PRESSURE DIFFERENTIAL IS P2 MINUS P3.







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