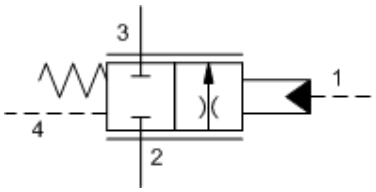
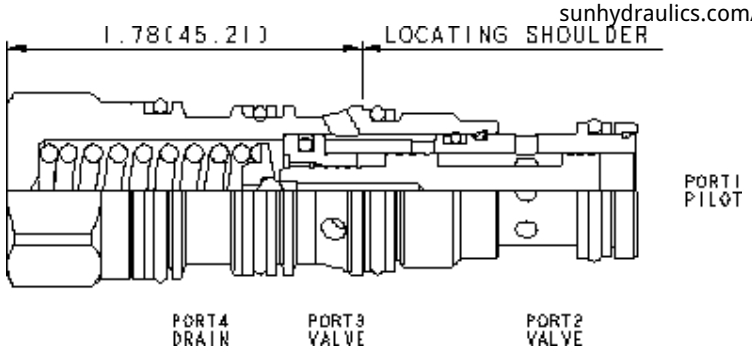
MODEL
FKCA

2-way, pilot-shifted, proportional throttle, high capacity
SERIES 1 / CAPACITY: 9 gpm / CAVITY: T-21A

sunhydraulics.com/model/FKCA





CONFIGURATION

X	Control	Not Adjustable
C	Spool Configuration	Normally Closed
N	Seal Material	Buna-N

This valve is a 2-way, 2-position proportional throttle. Ports 2 and 3 are normally closed. Pilot pressure at port 1 creates a metering orifice between port 2 and 3 that is proportional to the pressure at 1. 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 port 4 directly opposes pressure at port 1.

TECHNICAL DATA

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

Cavity	T-21A
Series	1
Capacity	9 gpm
Maximum Operating Pressure	5000 psi
Maximum Valve Leakage at 110 SUS (24 cSt)	2 in³/min.@1000 psi
Pilot Volume Displacement	.02 in³
Minimum Pilot Pressure to Operate	100 psi
Hysteresis	± 2 %
Adjustment - No. of CW Turns from Min. to Max. setting	5
Valve Hex Size	7/8 in.
Valve Installation Torque	30 - 35 lbf ft
Adjustment Screw Internal Hex Size	5/32 in.
Locknut Hex Size	9/16 in.
Locknut Torque	80 - 90 lbf in.
Seal kit - Cartridge	Buna: 990021007
Seal kit - Cartridge	Polyurethane: 990021002
Seal kit - Cartridge	Viton: 990021006
Model Weight	0.33 lb.

CONFIGURATION OPTIONS

Model Code Example: FKCAArray

CONTROL (X)	SPOOL CONFIGURATION (C)	SEAL MATERIAL (N)
X Not Adjustable	**C** Normally Closed	**N** Buna-N
L Tuning Adjustment		**V** Viton

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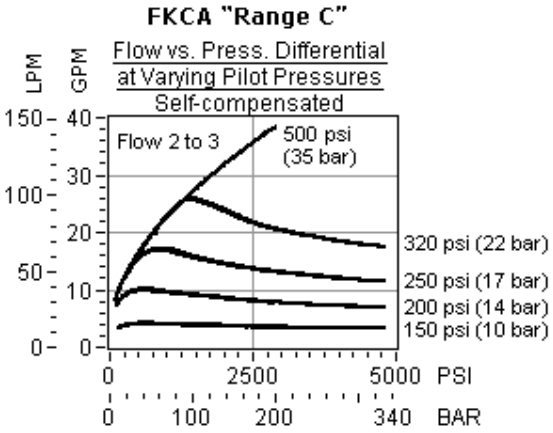
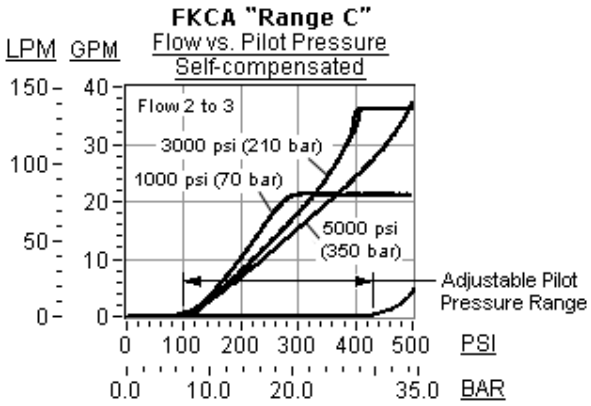
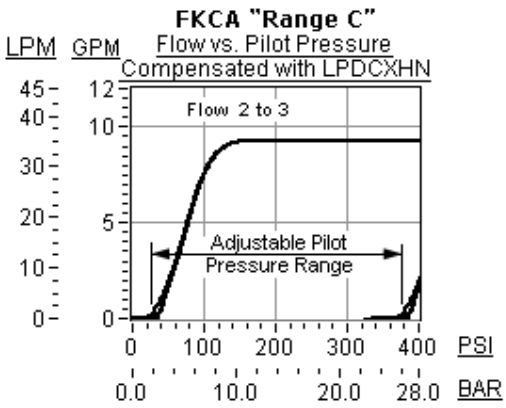
TECHNICAL FEATURES

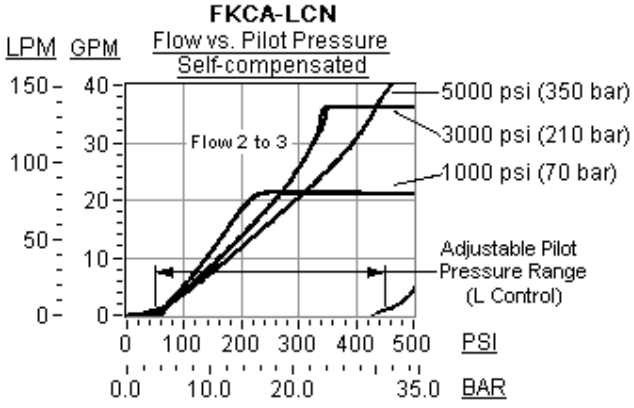
- An optional tuning adjustment (L control) is offered to vary the pilot pressure required to control flow. The tuning adjustment provides a means to manually increase or decrease flow at a given pilot pressure. The adjustment range is 50 - 450 psi (3,5 - 30 bar), 100 psi (7 bar) Standard Setting.
- 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.
- Ports 1 and 4 should be limited to 500 psi (35 bar).
- Pressure at port 4 directly opposes pressure at port 1.
- Accurate pressure compensated control requires that a constant pressure differential be maintained across the valve.
- 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.

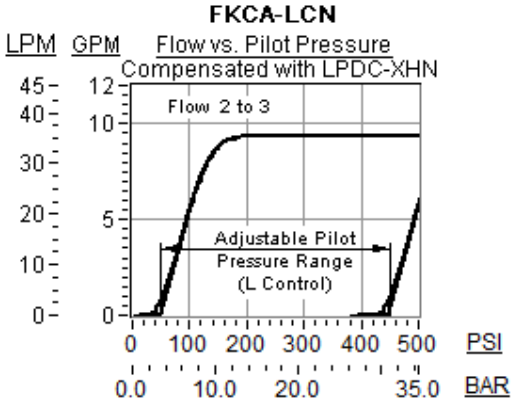
PERFORMANCE CURVES











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