



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-24A                             |
| Series   | 4                                 |
| Capacity   | 40 gpm                            |
| Maximum Operating Pressure                             | 5000 psi                          |
| Maximum Valve Leakage at 110 SUS (24 cSt)              | 6 in <sup>3</sup> /min. @1000 psi |
| Minimum Pilot Pressure to Operate                      | 100 psi                           |
| Pilot Volume Displacement                              | .20 in <sup>3</sup>               |
| Hysteresis   | ± 2 %                             |
| Adjustment - No. of CW Turns from Min. to Max. setting | 5                                 |
| Valve Hex Size   | 1 5/8 in.                         |
| Valve Installation Torque                              | 350 - 375 lbf ft                  |
| Adjustment Screw Internal Hex Size                     | 5/32 in.                          |
| Locknut Hex Size                                       | 9/16 in.                          |
| Locknut Torque   | 80 - 90 lbf in.                   |
| Model Weight   | 2.87 lb.                          |
| Seal kit - Cartridge                                   | Buna: 990-024-007                 |
| Seal kit - Cartridge                                   | Polyurethane: 990-024-002         |
| Seal kit - Cartridge                                   | Viton: 990-024-006                |

## OPTION SELECTION EXAMPLE: FKHXCN

| CONTROL             | (X) | SPOOL CONFIGURATION | (C) | SEAL MATERIAL | (N) | MATERIAL/COATING                |
|---------------------|-----|---------------------|-----|---------------|-----|---------------------------------|
| X Not Adjustable    |     | C Normally Closed   |     | N Buna-N      |     | Standard Material/Coating       |
| L Tuning Adjustment |     |                     |     | V Viton       |     | IAP Stainless Steel, Passivated |

## TECHNICAL FEATURES

- 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.
- 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 20 - 200 psi (1.4 - 14 bar), 100 psi (7 bar) Standard Setting.
- 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

