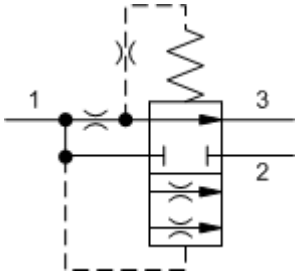
MODEL

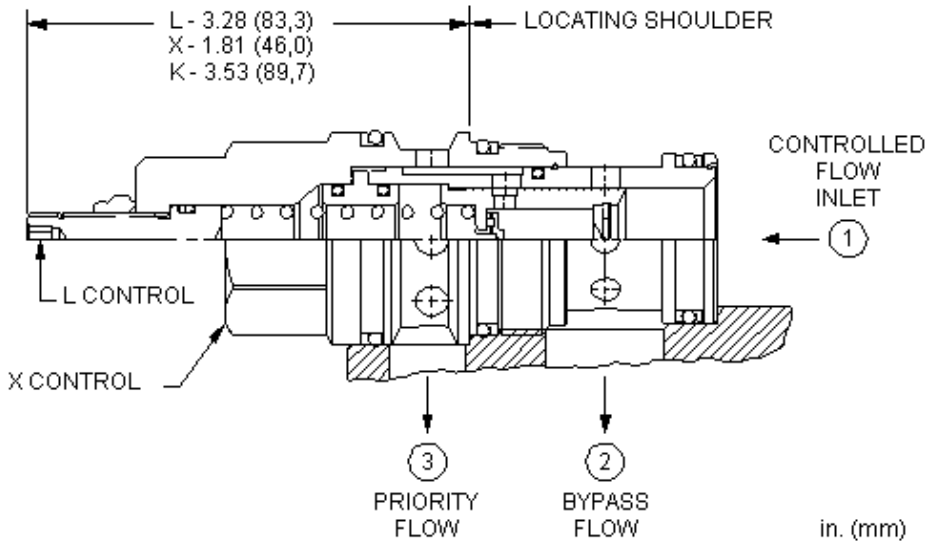
FREA

Fixed-orifice, bypass/restrictive, priority, flow control valve

CAPACITY: 25 gpm / CAVITY: T-17A

sunhydraulics.com/model/FREA





Bypass/restrictive, fixed-orifice, priority flow controls take an input flow at port 1 and use it to satisfy the priority flow at port 3. If the input flow exceeds the priority flow requirement, the excess is bypassed out port 2. The bypass flow may be used in a secondary circuit.

TECHNICAL DATA

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

Cavity	T-17A
Series	3
Capacity	25 gpm
Maximum Operating Pressure	5000 psi
Maximum Input Flow	60 gpm
Valve Hex Size	1 1/4 in.
Valve Installation Torque	150 - 160 lbf ft
Adjustment Screw Internal Hex Size	5/32 in.
Locknut Hex Size	9/16 in.
Locknut Torque	80 - 90 lbf in.
Model Weight	1.25 lb
Seal kit - Cartridge	Buna: 990-017-007
Seal kit - Cartridge	Polyurethane: 990-017-002
Seal kit - Cartridge	Viton: 990-017-006

OPTION SELECTION EXAMPLE: FREAXANV

CONTROL	(X)
X	Not Adjustable
C	Tamper Resistant - Factory Set
L	Tuning Adjustment

SETTING RANGE	(A)
A	Replaceable Orifice .2 - 25 gpm (0,8 - 95 L/min.)
B	Permanent Orifice .2 - 25 gpm (0,8 - 95 L/min.)

SEAL MATERIAL	(N)
N	Buna-N
V	Viton

MATERIAL/COATING	
	Standard Material/Coating
/AP	Stainless Steel, Passivated
/LH	Mild Steel, Zinc-Nickel

TECHNICAL FEATURES

- Customer must specify a flow rating. Factory set flow ratings are within +/- 10% of the requested setting.
- Maximum pressure at port 3 should be limited to 3000 psi (210 bar).
- A tuneable adjustment control option provides up to +/- 22% variation from the nominal factory pre-set flow. Adjustment is done with +/- 3 turns of the adjust screw. Screw in (CW) to increase flow.
- Both priority and bypass flow are usable up to the system operating pressure.
- Priority remains relatively constant regardless of variation in input flow.
- Bypass flow is not available until priority flow requirements are satisfied.
- Pressure at the bypass port (port 2) may exceed pressure at the priority port (port 3).
- The sharp-edged orifice design minimizes flow variations due to viscosity changes.
- 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