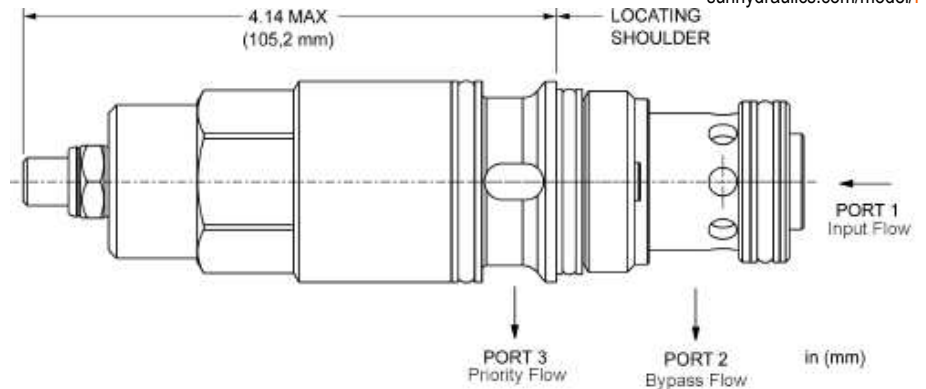
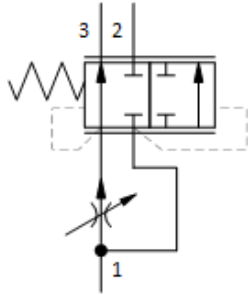




This valve is a fully adjustable, bypass/restrictive, priority flow control valve. The valve takes an input flow at port 1 and uses it to satisfy the priority flow at port 3. If the input flow exceeds the priority requirement, the excess is bypassed out port 2.

The valve pressure compensates the priority flow for precise flow regulation for applications where there may be wide pressure fluctuations. Port 2 may also be completely blocked so that the valve can be used as a 2-way, pressure compensated flow control from 1 to 3.

TECHNICAL DATA

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

Cavity	T-17A
Series	3
Capacity	120 L/min.
Maximum Operating Pressure	350 bar
Viscosity Range	2,8 - 380 cSt
Adjustment - No. of CCW Turns from Fully Closed to Fully Open	5
Typical Valve Leakage at 110 SUS (24 cSt) from port 1 to port 3 at 5000 psi (350 bar)	75 mL/min.
Rated Maximum Priority	66,5 L/min.
Response Time - Typical	50 ms
Valve Hex Size	31,8 mm
Valve Installation Torque	203 - 217 Nm

CONFIGURATION OPTIONS

Model Code Example: FRELLAN

CONTROL	(L)	ADJUSTMENT RANGE	(A)	SEAL MATERIAL	(N)
L Standard Screw Adjustment		A .02 - 18 gpm		N Buna-N	
H Calibrated Handknob with Detent Lock				V Viton	
K Handknob					
Y Tri-Grip Handknob					

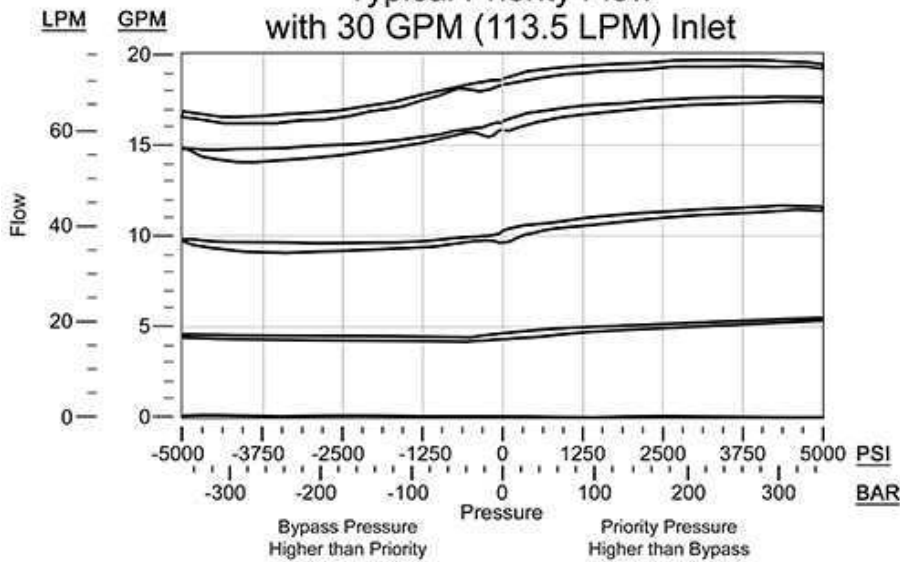
TECHNICAL FEATURES

- 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).
- In applications where the priority flow will be completely blocked, bypass pressure drop will increase over time unless a leak path is provided for the priority flow.
- Designed using CFD fluid simulation for optimized geometries.
- Exceeds NFPA test standard T2.6.1 R2014 for fatigue and burst pressure ratings.
- 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

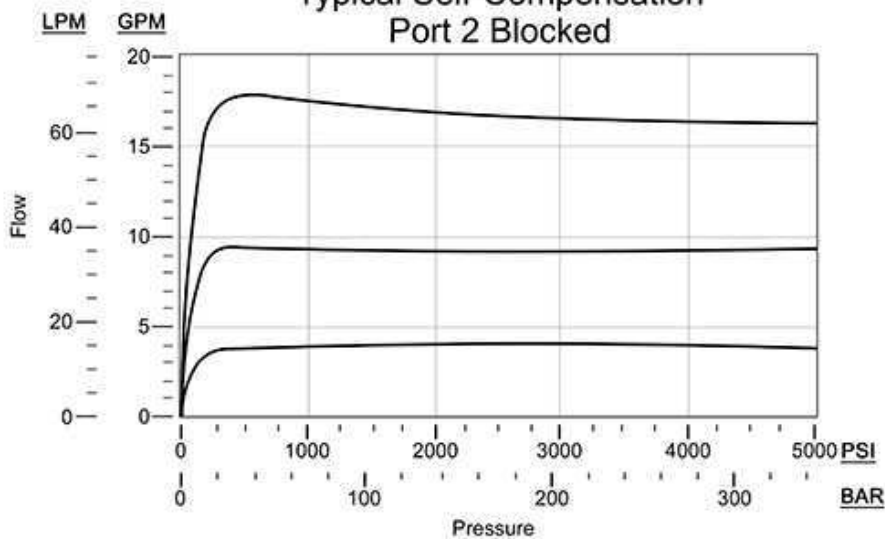
FREL

Typical Priority Flow
with 30 GPM (113.5 LPM) Inlet



FREL

Typical Self-Compensation
Port 2 Blocked



FREL

Typical Pressure Differential (Port-1 to Port-3)
vs. Bypass Flow (P2)

Valve de-energized with open port-3

