



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	30 gpm
Maximum Operating Pressure	5000 psi
Adjustment - No. of CCW Turns from Fully Closed to Fully Open	5
Rated Maximum Priority	17.6 gpm
Typical Valve Leakage at 110 SUS (24 cSt) from port 1 to port 3 at 5000 psi (350 bar)	75 mL/min.
Viscosity Range	35 - 2000 SUS
Response Time - Typical	50 ms
Valve Hex Size	1 1/4 in.
Valve Installation Torque	150 - 160 lbf ft
Model Weight	1.82 lb.

# OPTION SELECTION EXAMPLE: FRELLAN

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

