

Pilot operated, pressure reducing/relieving valve with drilled piston orifice

Functional Group:

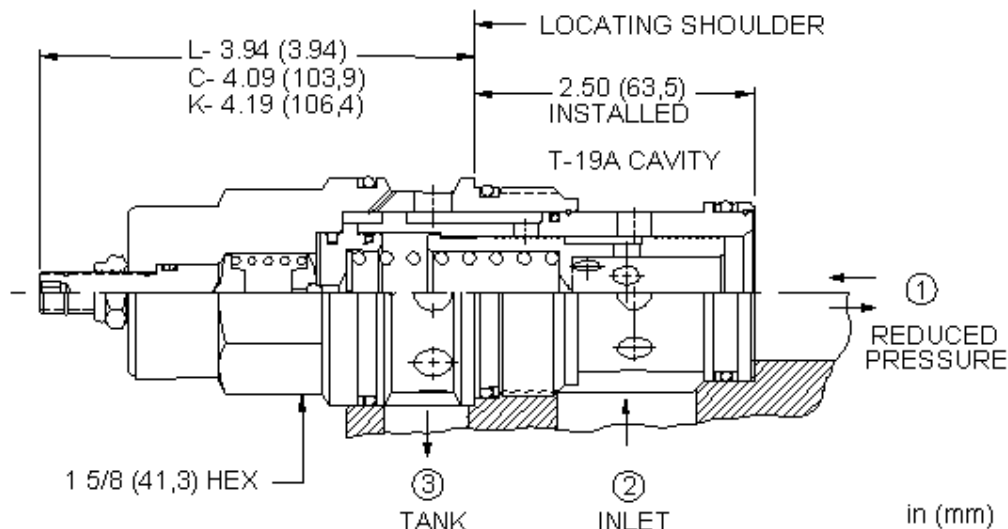
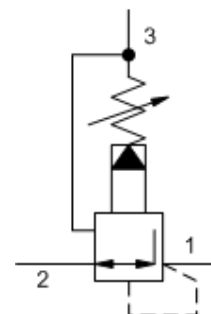
Products : Cartridges : Reducing/Relieving : 3 Port : Pilot Operated, Drilled Piston Orifice

Capacity:
80 gpm (320 L/min.)

Model:
PPJF

Product Description

Pilot-operated, pressure reducing/relieving valves reduce a high primary pressure at the inlet (port 2) to a constant reduced pressure at port 1, with a full-flow relief function from port 1 to tank (port 3).

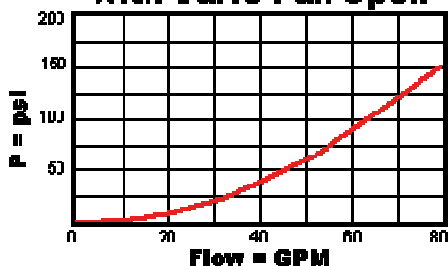
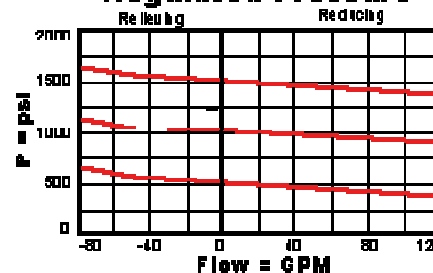


Technical Features

- These valves have the main stage orifice drilled into the piston rather than a staked-in orifice. This allows the valve to survive physically demanding applications.
- Maximum pressure at port 3 should be limited to 3000 psi (210 bar).
- Pressure at port 3 is directly additive to the valve setting at a 1:1 ratio and should not exceed 3000 psi (210 bar).
- All three-port pressure reducing and reducing/relieving cartridges are physically interchangeable (i.e. same flow path, same cavity for a given frame size). When considering mounting configurations, it is sometimes recommended that a full capacity return line (port 3) be used with reducing/relieving cartridges.
- Full reverse flow from reduced pressure (port 1) to inlet (port 2) may cause the main spool to close. If reverse free flow is required in the circuit, consider adding a separate check valve to the circuit.
- If pilot flow consumption is critical, consider using direct acting reducing/relieving valves.
- Recommended maximum inlet pressure is determined by the adjustment range. Ranges D, E, N, and Q are tested with a 2000 psi (140 bar) maximum differential between inlet and reduced pressure. Ranges A, B, and H are tested with a 3000 psi (210 bar) maximum differential between inlet and reduced pressure. Ranges C and W are tested with 5000 psi (350 bar) of inlet pressure.
- Pilot operated valves exhibit exceptionally flat pressure/flow characteristics, are very stable and have low hysteresis.
- Pilot operated reducing, reducing/relieving valves by nature are not fast acting valves. For superior dynamic response, consider direct acting valves.
- 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.

Technical Data

	U.S. Units	Metric Units
Cavity	T-19A	
Capacity	80 gpm	320 L/min.
Control Pilot Flow	15 - 20 in ³ /min.	0,25 - 0,33 L/min.
Factory Pressure Settings Established at	blocked control port (dead headed)	
Maximum Operating Pressure	5000 psi	350 bar
Series (from Cavity)	Series 4	
Adjustment - Number of Clockwise Turns to Increase Setting	5	
Valve Hex Size	1 5/8 in.	41,3 mm
Valve Installation Torque	350 - 375 lbf ft	475 - 500 Nm
Adjustment Screw Internal Hex Size	5/32 in.	4 mm
Adjustment Locknut/Cap Hex Size	9/16 in.	15 mm
Adjustment Nut Torque	80 - 90 lbf in.	9 - 10 Nm
Seal Kits - Cartridge	Buna: 990-019-007	
Seal Kits - Cartridge	Viton: 990-019-006	
Model Weight	2.85 lb.	1.29 kg.

**No Load Pressure Drop
with Valve Full Open****Regulated Pressure****PPJF-LAN****Control****Standard Options**

- C*** Tamper Resistant - Factory Set
K Handknob
L Standard Screw Adjustment

Adjustment Range**Standard Options**

- A** 100 - 3000 psi (7 - 210 bar), 200 psi (14 bar) Standard Setting
B 50 - 1500 psi (3,5 - 105 bar), 200 psi (14 bar) Standard Setting
D 25 - 800 psi (1,7 - 55 bar), 200 psi (14 bar) Standard Setting
E 25 - 400 psi (1,7 - 28 bar), 200 psi (14 bar) Standard Setting
H 30 - 3000 psi (2 - 210 bar), 200 psi (14 bar) Standard Setting
N 60 - 800 psi (4 - 55 bar), 200 psi (14 bar) Standard Setting
Q 60 - 400 psi (4 - 28 bar), 200 psi (14 bar) Standard Setting
W 150 - 4500 psi (10,5 - 315 bar), 200 psi (14 bar) Standard Setting

Seal Material**Standard Options**

- N** Buna-N
V Viton

* Special Setting required, specify at time of order
 Customer specified setting stamped on hex.