



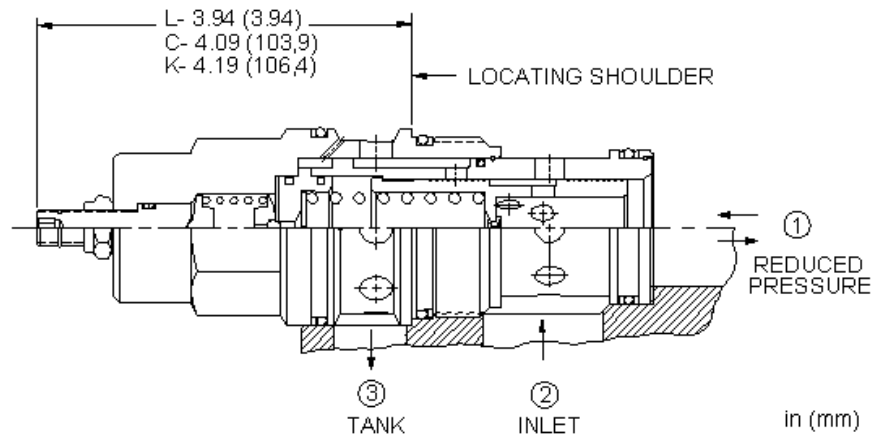
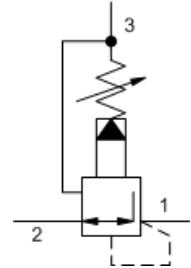
Pilot operated, pressure reducing/relieving valve

Capacity:
80 gpm (320 L/min.)

Model:
PPJB

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

- 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).
- Pilot operated reducing, reducing/relieving valves by nature are not fast acting valves. For superior dynamic response, consider direct acting 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.
- 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.
- 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.

Special Notes

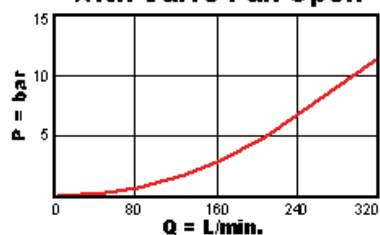
- Maximum pressure differentials for spring ranges: A and B are 3000 psi (210 bar) N and Q are 2000 psi (140 bar) W is 5000 psi (350 bar) inlet

pressure

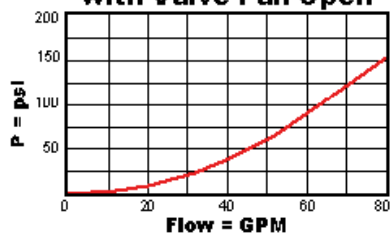
Technical Data

	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.

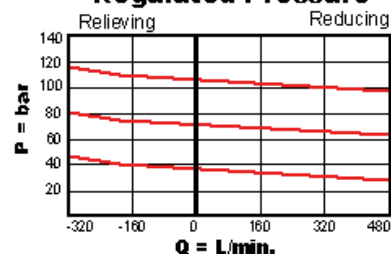
**No Load Pressure Drop
with Valve Full Open**



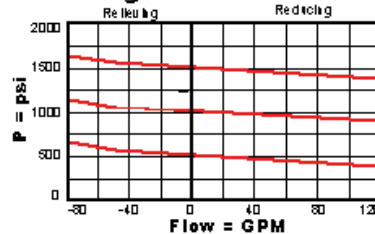
**No Load Pressure Drop
with Valve Full Open**



Regulated Pressure



Regulated Pressure



PPJB-LAN

Control

Preferred Options

L Standard Screw Adjustment
Standard Options

C* Tamper Resistant - Factory
Set

K Handknob

Adjustment Range

Preferred Options

A 100 - 3000 psi (7 - 210 bar),
200 psi (14 bar) Standard
Setting

W 150 - 4500 psi (10,5 - 315
bar), 200 psi (14 bar)
Standard Setting

Standard Options

B 50 - 1500 psi (3,5 - 105 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

Seal Material

Preferred Options

N Buna-N
Standard Options

V Viton

psi (14 bar) Standard Setting

Additional Options

Control

Adjustment Range

Seal Material

- 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

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

Related Models

[PPJB8](#)