

Pilot operated, pressure reducing valve

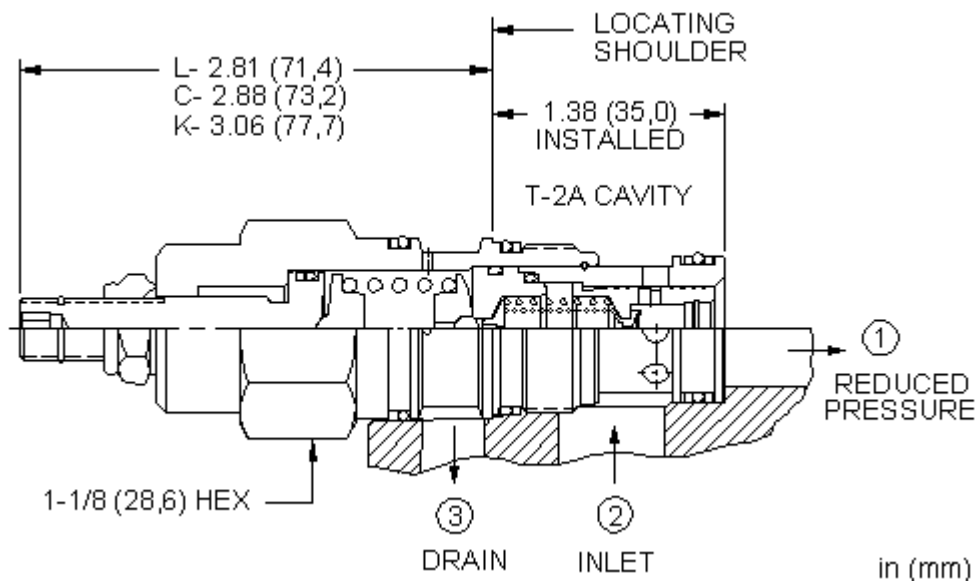
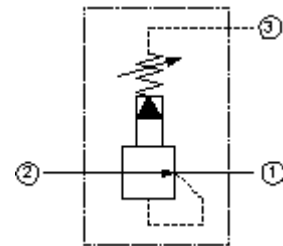
Capacity:
20 gpm (80 L/min.)

Functional Group:
Products : Cartridges : Reducing : 3 Port : Pilot Operated Reducer

Model:
PBFB

Product Description

Pilot-operated, pressure reducing valves reduce a high primary pressure at the inlet (port 2) to a constant reduced pressure at port 1, allowing circuits with multiple pressure requirements to be operated using a single pump.



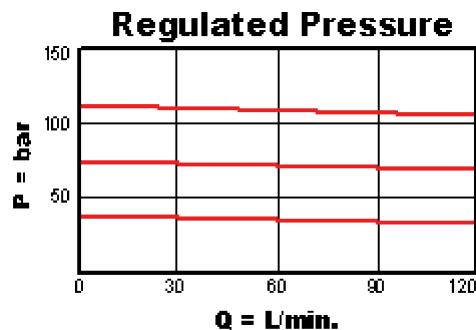
Technical Features

- | 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.
- | Main stage orifice is protected by a 150 micron stainless steel screen.
- | If pilot flow consumption is critical, consider using direct acting reducing/relieving valves.
- | 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 (200 bar) maximum differential between inlet and reduced pressure. Ranges C and W are tested with 5000 psi (350 bar) of inlet pressure.

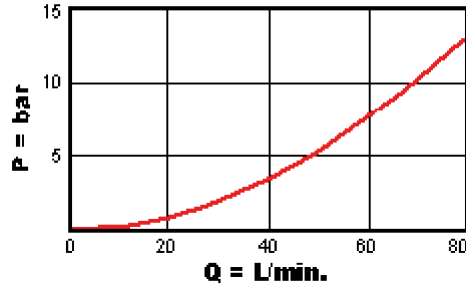
- | Pilot operated valves exhibit exceptionally flat pressure/flow characteristics, are very stable and have low hysteresis.
- | Pilot operated reducing, reducing/relieving valves by nature are not fast acting valves. For superior dynamic response, consider direct acting valves.
- | Incorporates the Sun floating style construction to eliminate the effects of internal parts binding due to excessive installation torque and/or cavity/cartridge machining variations.
- | Pressure at port 3 is directly additive to the valve setting at a 1:1 ratio and should not exceed 5000 psi (350 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.

Technical Data

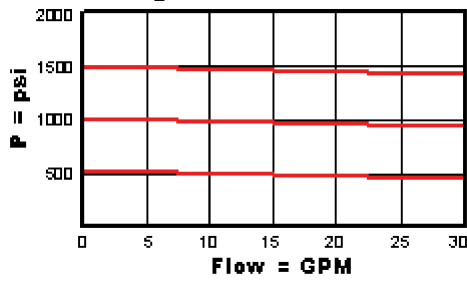
	U.S. Units	Metric Units
Cavity	T-2A	
Capacity	20	80 L/min.
Adjustment - Number of Clockwise Turns to Increase Setting	5	5
Control Pilot Flow	10 - 15	0,16 - 0,25 L/min.
Factory Pressure Settings Established at	blocked control port (dead headed)	blocked control port (dead headed)
Maximum Operating Pressure	5000	350 bar
Series (from Cavity)	2	2
Valve Hex Size	1 1/8	28,6 mm
Valve Installation Torque	45 - 50	60 - 70 Nm
Adjustment Screw Hex Socket Size	5/32	4 mm
Adjustment Nut Hex Size	9/16	15 mm
Adjustment Nut Torque	108	12 Nm
Model Weight	.60	0,30 kg
Seal Kits	Buna: 990-202-007	Buna: 990-202-007
Seal Kits	Viton: 990-202-006	Viton: 990-202-006



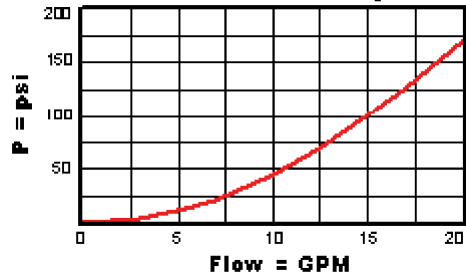
No Load Pressure Drop with Valve Full Open



Regulated Pressure



No Load Pressure Drop with Valve Full Open



Option Selection

PBFB-L A N



Preferred Options

Control

L Standard Screw Adjustment

Adjustment Range

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

External Material/Seal Material

N Buna-N

Standard Options

C* Tamper Resistant - Factory Set

F Hex Head Screw with Locknut

K Handknob

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 - 25 bar), 200 psi (14 bar) Standard Setting

V Viton

Customer specified setting stamped on hex +\$1.10

*Special Setting required, specify at time of order

Related Information :

- | [Explanation of Sun cartridge control options - US units.](#)
 - | [Explanation of Sun cartridge control options - metric units.](#)
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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

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