

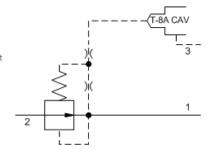
# Pilot operated, pressure reducing main stage with integral T-8A control cavity

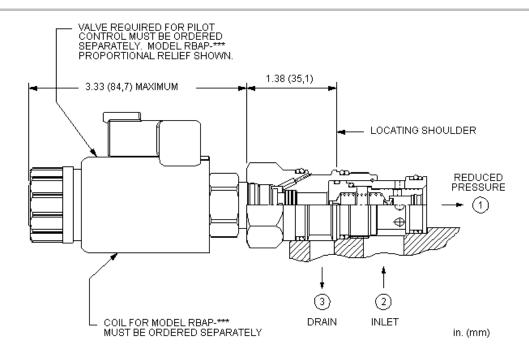
Capacity: 20 gpm (80 L/min.)

> Model: PBFB8

#### Product Description

This valve is a normally open modulating element that incorporates an integral pilot control cavity. The pilot control cavity will accept any T-8A pressure control cartridge. The valve reduces a high primary pressure at the inlet (port 2) to a constant reduced pressure at port 1. The pilot cartridge's setting determines the difference in pressure between reduced pressure (port 1) and the drain (port 3).





### 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.
- Pilot operated valves exhibit very low dead-band transition between reducing and relieving modes.
- Pilot operated valves exhibit exceptionally flat pressure/flow characteristics, are very stable and have low hysteresis.

- Maximum inlet pressure is determined by the bias spring. The D spring is tested with 2000 psi (140 bar) maximum differential pressure and the W spring is tested with 5000 psi (350 bar) maximum inlet pressure.
- NOTE: With the -8 control option, the main stage valve should first be installed to the correct torque value. The T-8A pilot control valve should then be installed into the main stage valve to its required torque value.
- The -8 control option allows the pilot control valve to be incorporated directly into the end of the relief cartridge via the T-8A cavity. These pilot control cartridges are sold separately and include electroproportional, solenoid, air pilot, and hydraulic pilot operation. See Pilot Control Cartridges.
- \* 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.

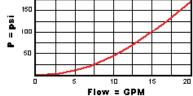
- Pressure at port 3 is directly additive to the valve setting at a 1:1 ratio and should not exceed 5000 psi (350 bar).
  Incorporates the Sun floating style construction to minimize the possibility of internal parts binding due to excessive installation torque and/or cavity/cartridge machining variations.

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	U.S. Units	Metric Units	
Cavity	Т	T-2A	
Capacity	20 gpm	80 L/min.	
Control Pilot Flow	10 - 15 in³/min.	0,16 - 0,25 L/min.	
Maximum Operating Pressure	5000 psi	350 bar	
Pilot Control Cavity	Т	T-8A	
Series (from Cavity)	Ser	Series 2	
Valve Hex Size	1 1/8 in.	28,6 mm	
Valve Installation Torque	45 - 50 lbf ft	60 - 70 Nm	
Seal Kits - Cartridge	Buna: 99	Buna: 990-202-007	
Seal Kits - Cartridge	Viton: 99	Viton: 990-202-006	
Model Weight	0.46 lb.	0.21 kg.	

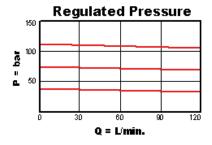


No Load Pressure Drop



## No Load Pressure Drop with Valve Full Open 15 10 P = bar 20 Q = L/min.

## **Regulated Pressure** 1500 II 1000 500 20 25 15 Flow = GPM



### PBFB-8WN

Minimum Control Pressure Seal Material

Standard Options Standard Options

25 psi (1,7 bar) Buna-N D Ν 100 psi (7 bar) Viton

Related Models PBFB