

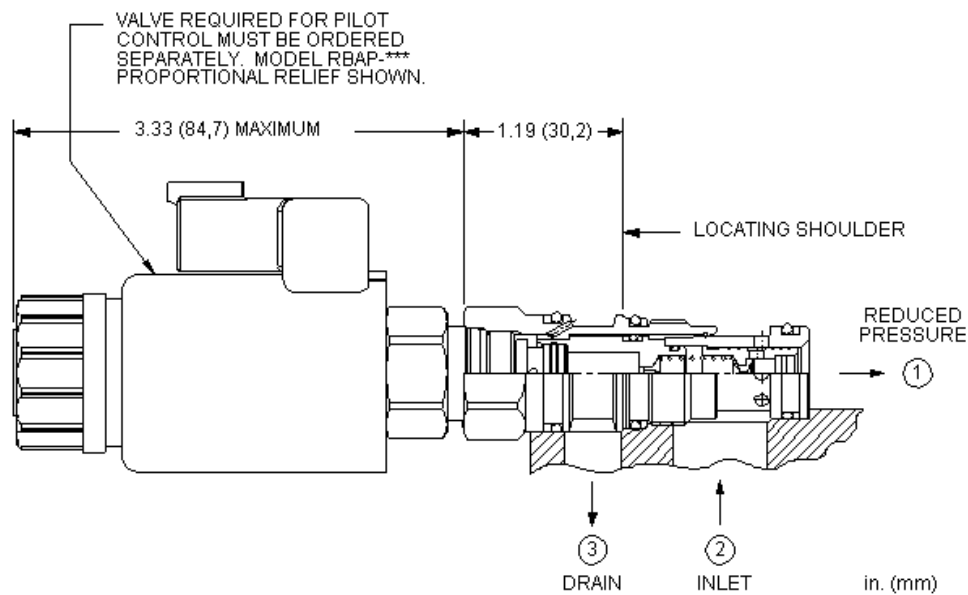
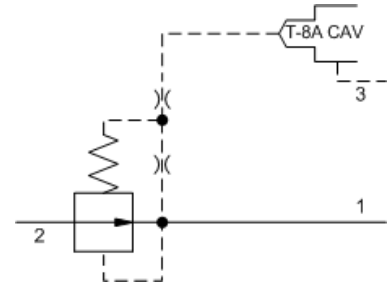
Pilot operated, pressure reducing main stage with integral T-8A control cavity

Capacity:
10 gpm (40
L/min.)

Model:
PBDB8

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

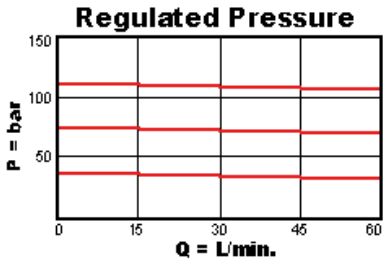
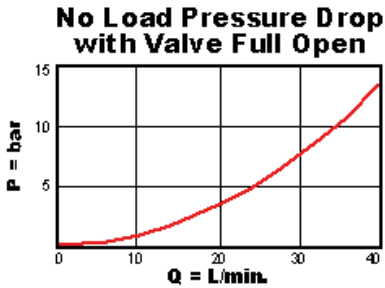
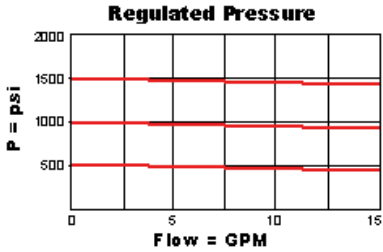
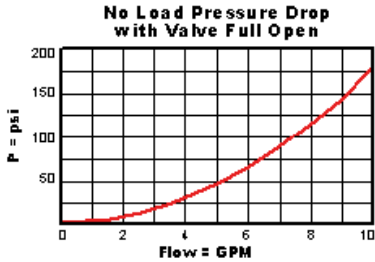
- Full reverse flow from reduced pressure (port 1) to inlet (port 2) may cause the main spool to close. If reverse free flow is required in the circuit, consider adding a separate check valve to the circuit.
- Main stage orifice is protected by a 150 micron stainless steel screen.
- Pilot operated valves 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 electro-proportional, 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.

Technical Data

	U.S. Units	Metric Units
Cavity		T-11A
Capacity	10 gpm	40 L/min.
Control Pilot Flow	7 - 10 in ³ /min.	0,11 - 0,16 L/min.
Maximum Operating Pressure	5000 psi	350 bar
Pilot Control Cavity		T-8A
Series (from Cavity)		Series 1
Valve Hex Size	7/8 in.	22,2 mm
Valve Installation Torque	30 - 35 lbf ft	40 - 50 Nm
Seal Kits - Cartridge		Buna: 990-011-007
Seal Kits - Cartridge		Viton: 990-011-006
Model Weight	0.22 lb.	0.10 kg.



PBDB-8WN

Bias Pressure

Standard Options

- D 25 psi (1,7 bar)
- W 100 psi (7 bar)

Seal Material

Standard Options

- N Buna-N
- V Viton

Related Models
[PBDB](#)