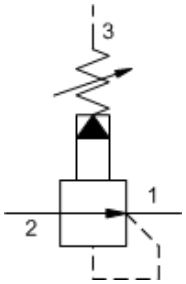
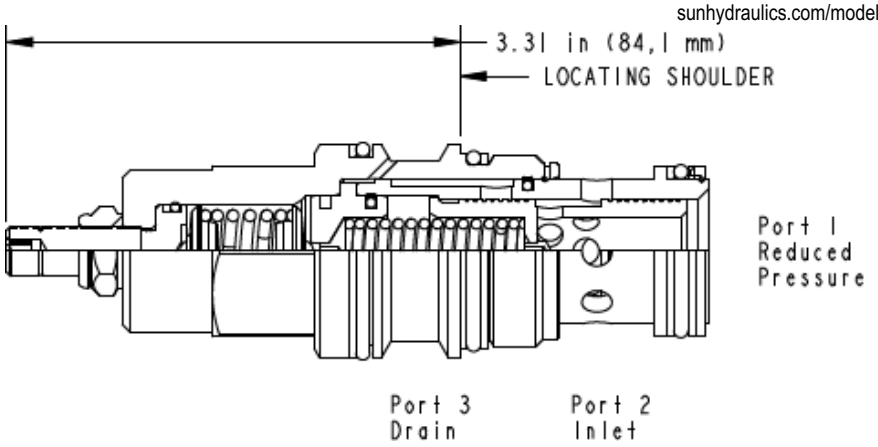
MODEL
PBHB

Pilot-operated, pressure reducing valve
SERIES 3 / CAPACITY: 160 L/min. / CAVITY: T-17A

sunhydraulics.com/model/PBHB





CONFIGURATION

L	Control	Standard Screw Adjustment
A	Adjustment Range	100 - 3000 psi (7 - 210 bar), 200 psi (14 bar) Standard Setting
N	Seal Material	Buna-N
(none)	Material/Coating	

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 DATA

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Cavity	T-17A
Series	3
Capacity	160 L/min.
Maximum Operating Pressure	350 bar
Factory Pressure Settings Established at	blocked control port (dead headed)
Control Pilot Flow	0,25 - 0,33 L/min.
Adjustment - No. of CW Turns from Min. to Max. setting	5
Valve Hex Size	31,8 mm
Valve Installation Torque	203 - 217 Nm
Adjustment Screw Internal Hex Size	4 mm
Locknut Hex Size	15 mm
Locknut Torque	9 - 10 Nm
Seal kit - Cartridge	Buna: 990017007
Seal kit - Cartridge	EPDM: 990017014
Seal kit - Cartridge	Polyurethane: 990017002
Seal kit - Cartridge	Viton: 990017006
Model Weight	0.57 kg.

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

CONFIGURATION OPTIONS

Model Code Example: PBHBLAN

CONTROL (L)

- **L** Standard Screw Adjustment
- **C** Tamper Resistant - Factory Set
- **K** Handknob
- **W** Hex Wrench Adjustment
- **Y** Tri-Grip Handknob

ADJUSTMENT RANGE (A)

- **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
- **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 psi (14 bar) Standard Setting

SEAL MATERIAL (N)

- **N** Buna-N
- **E** EPDM
- **V** Viton

MATERIAL/COATING

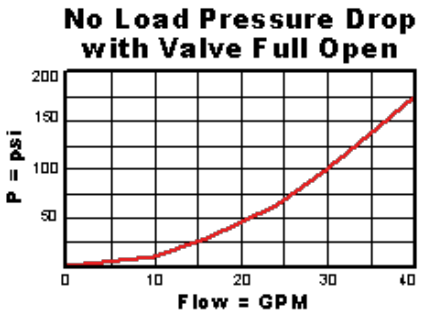
- Standard Material/Coating
- **/AP** Stainless Steel, Passivated
- **/LH** Mild Steel, Zinc-Nickel

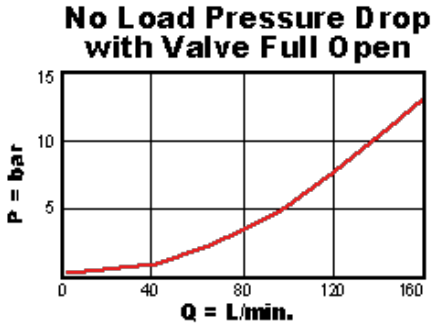
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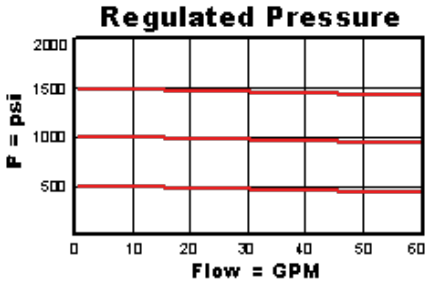
TECHNICAL FEATURES

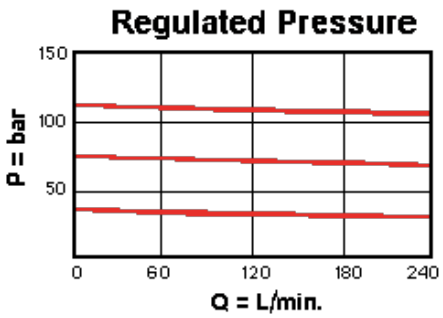
- Full reverse flow from reduced pressure (port 1) to inlet (port 2) may cause the main spool to close. If reverse free flow is required in the circuit, consider adding a separate check valve to the circuit.
- If pilot flow consumption is critical, consider using direct acting reducing/relieving valves.
- 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.
- Pressure at port 3 is directly additive to the valve setting at a 1:1 ratio and should not exceed 5000 psi (350 bar).
- Pilot operated reducing, reducing/relieving valves by nature are not fast acting valves. For superior dynamic response, consider direct acting valves.
- W and Y controls (where applicable) can be specified with or without a special setting. When no special setting is specified, the valve is adjustable throughout its full range using the W or Y control. When a special setting is specified, this setting represents the maximum setting of the valve.
- Cartridges configured with EPDM seals are for use in systems with phosphate ester fluids. Exposure to petroleum based fluids, greases and lubricants will damage the seals.
- 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.
- 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.

PERFORMANCE CURVES









RELATED MODELS

- PBHB8 Pilot-operated, pressure reducing main stage with integral T-8A control cavity

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