

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).

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		

TECHNICAL DATA

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

Cavity	T-17A
Series	3
Capacity	40 gpm
Maximum Operating Pressure	5000 psi
Factory Pressure Settings Established at	blocked control port (dead headed)
Control Pilot Flow	15 - 20 in ³ /min.
Adjustment - No. of CW Turns from Min. to Max. setting	5
Valve Hex Size	1 1/4 in.
Valve Installation Torque	150 - 160 lbf ft
Adjustment Screw Internal Hex Size	5/32 in.
Locknut Hex Size	9/16 in.
Locknut Torque	80 - 90 lbf in.
Seal kit - Cartridge	Buna: 990017007
Seal kit - Cartridge	EPDM: 990017014
Seal kit - Cartridge	Polyurethane: 990017002
Seal kit - Cartridge	Viton: 990017006
Model Weight	1.24 lb.

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

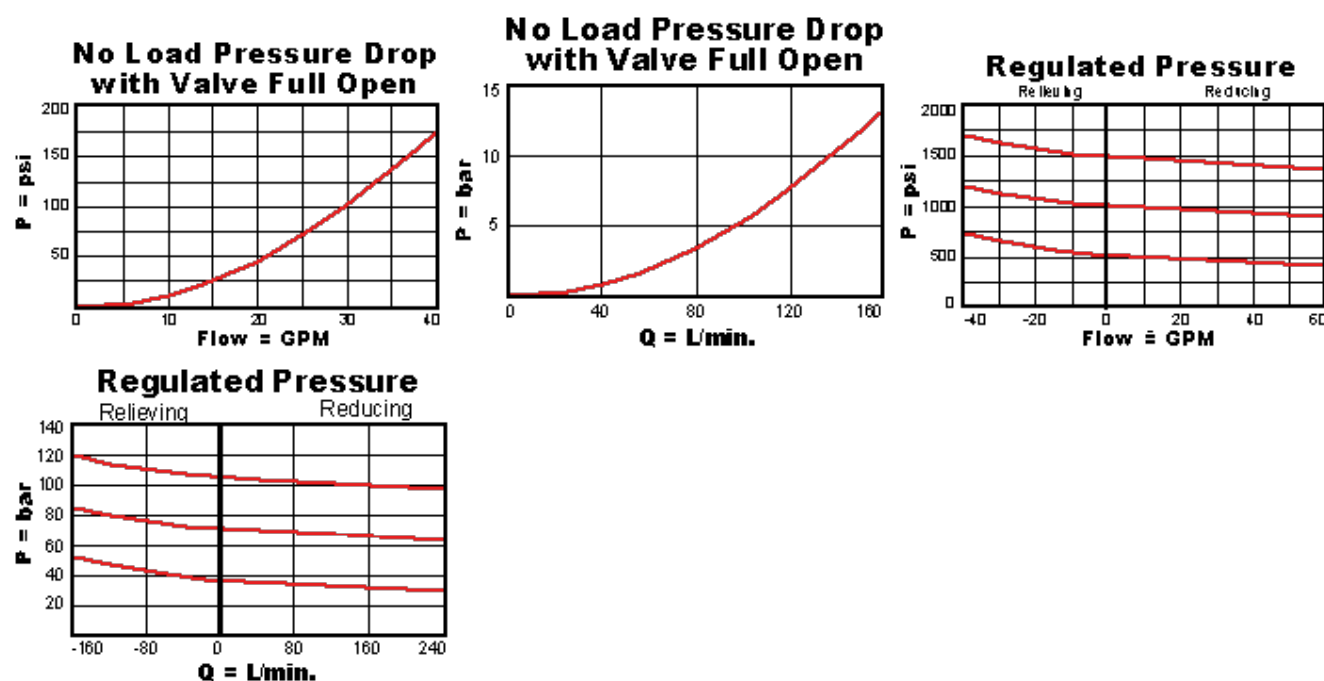
Model Code Example: PPHBLAN

CONTROL	(L)	ADJUSTMENT RANGE	(A)	SEAL MATERIAL	(N)	MATERIAL/COATING
L Standard Screw Adjustment		A 100 - 3000 psi (7 - 210 bar), 200 psi (14 bar) Standard Setting		N Buna-N		Standard Material/Coating
C Tamper Resistant - Factory Set		W 150 - 4500 psi (10,5 - 315 bar), 200 psi (14 bar) Standard Setting		E EPDM		/AP Stainless Steel, Passivated
K Handknob		B 50 - 1500 psi (3,5 - 105 bar), 200 psi (14 bar) Standard Setting		V Viton		/LH Mild Steel, Zinc-Nickel
Y Tri-Grip Handknob		C 150 - 6000 psi (10,5 - 420 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				

TECHNICAL FEATURES

- Pressure at port 3 is directly additive to the valve setting at a 1:1 ratio and should not exceed 3000 psi (210 bar).
- Maximum pressure at port 3 should be limited to 3000 psi (210 bar).
- 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.
- 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.
- 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.

PERFORMANCE CURVES



RELATED MODELS

- [PPHB8](#) Pilot-operated, pressure reducing/relieving main stage with integral T-8A control cavity