

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.

CONFIGURATION

L Control	Standard Screw Adjustment
W Adjustment Range	150 - 4500 psi (10,5 - 315 bar), 200 psi (14 bar) Standard Setting
N Seal Material	Buna-N

TECHNICAL DATA

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

Cavity	T-11A
Series	1
Capacity	40 L/min.
Factory Pressure Settings Established at	blocked control port (dead headed)
Maximum Operating Pressure	350 bar
Control Pilot Flow	0,11 - 0,16 L/min.
Adjustment - No. of CW Turns from Min. to Max. setting	5
Valve Hex Size	22,2 mm
Valve Installation Torque	41 - 47 Nm
Adjustment Screw Internal Hex Size	4 mm
Locknut Hex Size	15 mm
Locknut Torque	9 - 10 Nm
Seal kit - Cartridge	Buna: 990011007
Seal kit - Cartridge	Polyurethane: 990011002
Seal kit - Cartridge	Viton: 990011006
Model Weight	0.16 kg.

NOTES For Series 1 cartridges configured with an O control (panel mount handknob), a .75 in. (19 mm) diameter hole is required in the panel.

CONFIGURATION OPTIONS

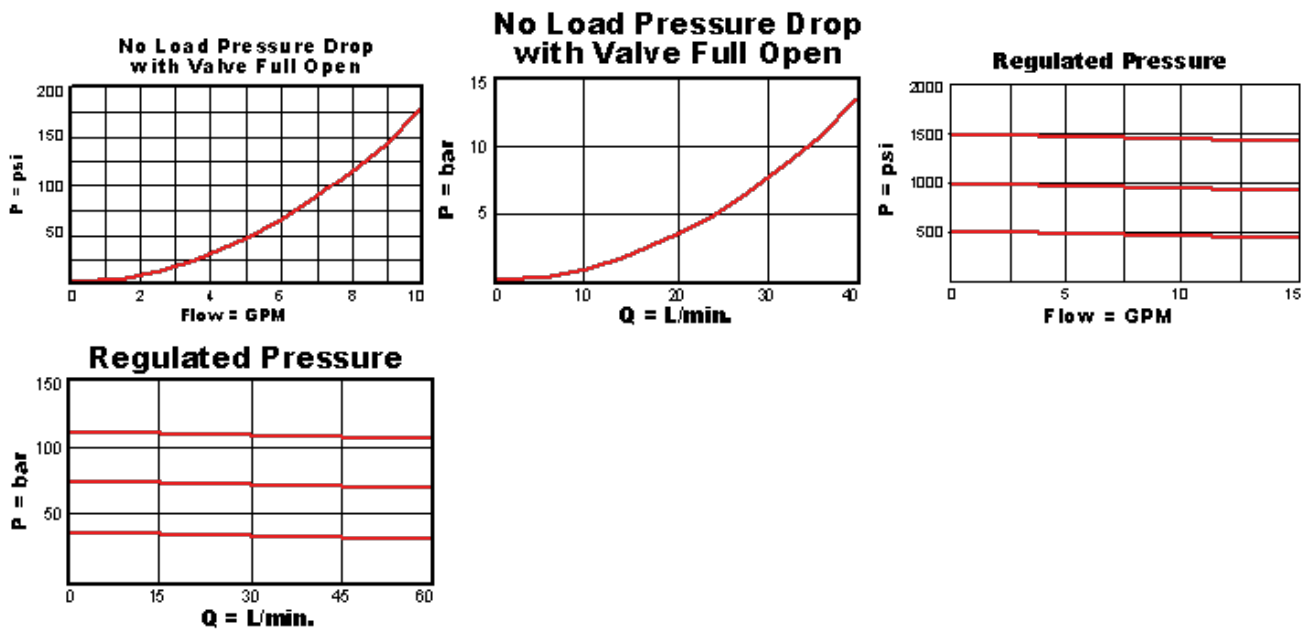
Model Code Example: PBDFLWN

CONTROL	(L) ADJUSTMENT RANGE	(W) SEAL MATERIAL	(N)
L Standard Screw Adjustment	W 150 - 4500 psi (10,5 - 315 bar), 200 psi (14 bar) Standard Setting	N Buna-N	
C Tamper Resistant - Factory Set	A 100 - 3000 psi (7 - 210 bar), 200 psi (14 bar) Standard Setting	V Viton	
K Handknob	B 50 - 1500 psi (3,5 - 105 bar), 200 psi (14 bar) Standard Setting		
	D 25 - 800 psi (1,7 - 55 bar), 200 psi (14 bar) Standard Setting		
	E 25 - 400 psi (1,7 - 28 bar), 200 psi (14 bar) Standard Setting		
	G 60 - 3000 psi (4 - 210 bar), 200 psi (14 bar) Standard Setting		
	K 75 - 1500 psi (5 - 105 bar), 200 psi (14 bar) Standard Setting		
	N 60 - 800 psi (4 - 55 bar), 200 psi (14 bar) Standard Setting		
	P 40 - 400 psi (2,8 - 28 bar), 200 psi (14 bar) Standard Setting		
	Q 60 - 400 psi (4 - 28 bar), 200 psi (14 bar) Standard Setting		

TECHNICAL FEATURES

- These valves have the main stage orifice drilled into the piston rather than a staked-in orifice. This allows the valve to survive physically demanding applications.
- 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.
- 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.
- 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.
- Corrosion resistant cartridge valves are intended for use in corrosive environments and are identified by the model code suffix /AP for external stainless steel components, or /LH for external zinc-nickel plated components. See the CONFIGURATION section for all options. For further details, please see the Materials of Construction page located under TECH RESOURCES.
- 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

- [PBDF8](#) Pilot-operated, pressure reducing main stage with drilled piston orifice and integral T-8A control cavity