



CONFIGURATION

L Control	Standard Screw Adjustment
Q Adjustment Range	60 - 400 psi (4 - 28 bar), 200 psi (14 bar) Standard Setting
N Seal Material	Buna-N
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.

NOTE: DATA MAY VARY. **TECHNICAL DATA** SEE CONFIGURATION SECTION.

Cavity	T-11A
Series	1
Capacity	10 gpm
Maximum Operating Pressure	5000 psi
Control Pilot Flow	7 - 10 in ³ /min.
Factory Pressure Settings Established at	blocked control port (dead headed)
Adjustment - No. of CW Turns from Min. to Max. setting	5
Valve Hex Size	7/8 in.
Valve Installation Torque	30 - 35 lbf ft
Adjustment Screw Internal Hex Size	5/32 in.
Locknut Hex Size	9/16 in.
Locknut Torque	80 - 90 lbf in.
Model Weight	0.35 lb.
Seal kit - Cartridge	Buna: 990-011-007
Seal kit - Cartridge	EPDM: 990-011-014
Seal kit - Cartridge	Polyurethane: 990-011-002
Seal kit - Cartridge	Viton: 990-011-006

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

OPTION SELECTION EXAMPLE: PBDBLQN

CONTROL	(L)	ADJUSTMENT RANGE	(Q)	SEAL MATERIAL	(N)	MATERIAL/COATING	(/LH)
L	Standard Screw Adjustment	Q	60 - 400 psi (4 - 28 bar), 200 psi (14 bar) Standard Setting	N	Buna-N	/LH	Mild Steel, Zinc-Nickel
		A	100 - 3000 psi (7 - 210 bar), 200 psi (14 bar) Standard Setting	V	Viton	/AP	Stainless Steel, Passivated Standard Material/Coating
		B	50 - 1500 psi (3,5 - 105 bar), 200 psi (14 bar) Standard Setting				
		C	150 - 6000 psi (10,5 - 420 bar), 200 psi (14 bar) Standard Setting				
		D	25 - 800 psi (1,7 - 55 bar), 200 psi (14 bar) Standard Setting				
		N	60 - 800 psi (4 - 55 bar), 200 psi (14 bar) Standard Setting				
		W	150 - 4500 psi (10,5 - 315 bar), 200 psi (14 bar) Standard Setting				

TECHNICAL FEATURES

- 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.
- Main stage orifice is protected by a 150 micron stainless steel screen.
- 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.
- 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

