



CONFIGURATION

X	Control	Not Adjustable
F	Bias Pressure	100 psi (7 bar)
N	Seal Material	Buna-N

The direct-acting reducer/reliever main section is meant to act as an interface between a low flow pressure source at port 4 and a circuit with higher flow requirements. The valve will reduce a high primary pressure at the inlet (port 2) to a reduced pressure at port 1, with a full-flow relief function from port 1 to tank (port 3).

The valve incorporates a damped construction for stable operation allowing the use of high reduced pressure.

TECHNICAL DATA

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

Cavity	T-22A
Series	2
Capacity	20 gpm
Maximum Operating Pressure	5000 psi
Factory Pressure Settings Established at	blocked control port (dead headed)
Maximum Valve Leakage at 110 SUS (24 cSt)	3 in ³ /min.@1000 psi
Valve Hex Size	1 1/8 in.
Valve Installation Torque	45 - 50 lbf ft
Seal kit - Cartridge	Buna: 990022007
Seal kit - Cartridge	EPDM: 990022014
Seal kit - Cartridge	Polyurethane: 990022002
Seal kit - Cartridge	Viton: 990022006
Model Weight	0.67 lb.

CONFIGURATION OPTIONS

Model Code Example: PSFTXFN

CONTROL	(X)	BIAS PRESSURE	(F)	SEAL MATERIAL	(N)
X Not Adjustable		F 100 psi (7 bar)		N Buna-N	
				E EPDM	
				V Viton	

TECHNICAL FEATURES

- The valve is biased to the relieving mode with a 100 psi (7 bar) spring. Pressure at port 4 is directly added to the setting of the valve once this threshold is exceeded. For example, 1000 psi (70 bar) at port 4 will result in a setting of 900 psi (63 bar) at port 1.
- Maximum pressure at port 3 should be limited to 3000 psi (210 bar).
- All spring ranges are tested for correct operation with 5000 psi (350 bar) inlet pressure.
- Suitable for accumulator circuits since the absence of pilot control flow results in reduced secondary circuit leakage.
- Direct acting concept provides highly reliable operation in contaminated systems, especially at dead headed conditions.
- Direct operated version offers superior dynamic response compared to equivalent pilot operated models.
- Pressure on the drain (port 4) is directly additive to the valve setting at a 1:1 ratio and should not exceed 5000 psi (350 bar).
- Leakage specified in Technical Data is out of port 3 with a supply pressure of 2000 psi (140 bar) and the valve set at mid range. This leakage is directly proportional to pressure differential and inversely proportional to viscosity expressed in centistokes.
- 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.
- 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.
- 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

