



CONFIGURATION

X	Control	No Manual Override
A	Adjustment Range	3000 - 1500 psi (105 - 210 bar)
N	Seal Material	Buna-N
(none)	Coil	No coil

This 2-port, pilot-stage, direct-acting relief cartridge is an electro-proportionally controlled, normally-closed pressure regulating valve. The valve is spring biased closed to its highest setting (customer specified). Increasing current to the coil will proportionally decrease the pressure setting. When the pressure at port 1 (inlet) is sufficient to overcome the spring force minus the solenoid force, as determined by the analog input signal, the poppet lifts and allows flow from port 1 to port 2 (outlet). This pilot control cartridge utilizes the T-8A cavity so it can be used in conjunction with Sun's main stage, pressure control elements.

TECHNICAL DATA

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

Cavity	T-8A
Series	P
Capacity	.25 gpm
Maximum Operating Pressure	5000 psi
Maximum Valve Leakage at Reseat	1.5 in ³ /min.
Reseat	>85% of setting
Solenoid Tube Diameter	.75 in.
Valve Hex Size	7/8 in.
Valve Installation Torque	20 - 25 lbf ft
Model Weight (with coil)	1.00 lb
Seal kit - Cartridge	Buna: 990208007
Seal kit - Cartridge	Viton: 990208006
Seal and nut kit - Coil	Viton: 990770006
Model Weight	0.67 lb.

PROPORTIONAL PERFORMANCE DATA

Hysteresis (with dither)	<4%
Hysteresis with DC input	<8%
Linearity (with dither)	<2%
Repeatability (with dither)	<2%
Recommended dither frequency	140 Hz

CONFIGURATION OPTIONS

Model Code Example: RBANXAN

CONTROL	(X) ADJUSTMENT RANGE	(A) SEAL MATERIAL	(N) COIL *
X No Manual Override	A 3000 - 1500 psi (105 - 210 bar) B 1500 - 800 psi (55 - 105 bar) D 800 - 300 psi (20 - 55 bar) W 5000 - 3000 psi (210 - 350 bar)	N Buna-N V Viton	No coil 212 DIN 43650-Form A, 12 VDC 224 DIN 43650-Form A, 24 VDC 224NX01 DIN 43650-Form A, 24 VDC, no transient voltage suppression (TVS) diodes, with XMD-01 driver 224NX02 DIN 43650-Form A, 24 VDC, no transient voltage suppression (TVS) diodes, with XMD-02 driver 912 Deutsch DT04-2P, 12 VDC 912NX01 Deutsch DT04-2P, 12 VDC, no transient voltage suppression (TVS) diodes, with XMD-01 driver 912NX02 Deutsch DT04-2P, 12 VDC, no transient voltage suppression (TVS) diodes, with XMD-02 driver 924 Deutsch DT04-2P, 24 VDC 924NX01 Deutsch DT04-2P, 24 VDC, no transient voltage suppression (TVS) diodes, with XMD-01 driver 924NX02 Deutsch DT04-2P, 24 VDC, no transient voltage suppression (TVS) diodes, with XMD-02 driver

* Additional coil options are available

TECHNICAL FEATURES

- Customer must specify a relief setting that falls within the selected pressure range. This setting represents the maximum relief pressure which the valve will default to with no command. As the command increases, the relief setting will decrease. See performance curves for selected pressure range. This setting is not adjustable in the field.
- Varying the analog input signal to the proportional solenoid provides a step-less control of pressure.
- This electro-proportional cartridge utilizes the Sun T-8A, 2-port cavity making it the ideal choice to use in conjunction with Sun's main stage cartridges. Separate pilot lines are eliminated and only one cavity needs to be machined to accommodate both the control and primary function. Note: All 2-port pilot stage control cartridges utilize the same cavity and are physically interchangeable. Functionality is the only consideration.
- High pilot capacity allows for operation of larger size main stage elements.
- Damped construction provides stable operation over a wide range of operating conditions.
- Low leakage levels in the closed position. (Reseat occurs at 85% of cracking pressure.)
- Coils are interchangeable with Sun's other full flow, solenoid operated valves and can be mounted on the tube in either direction.
- For optimum performance, an amplifier with current sensing and adjustable dither should be used. Dither should be adjustable between 100 - 250 Hz.
- Note: The main stage valve should first be installed to the correct torque value followed by the T-8A pilot control section into the main stage valve to its required torque value.
- 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

