

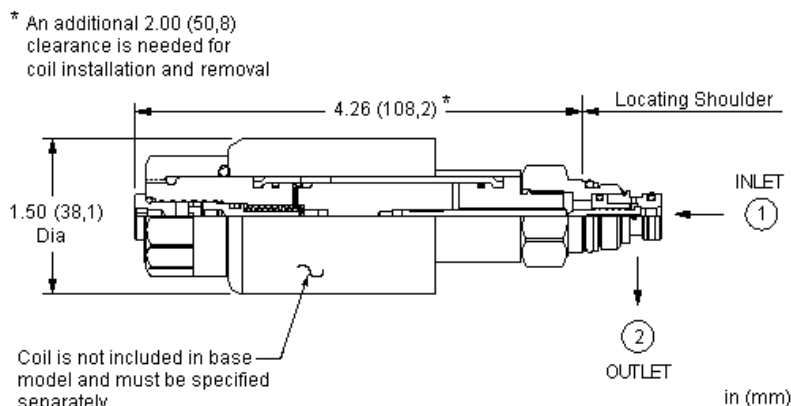
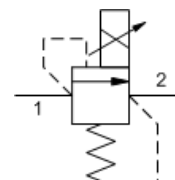


Electro-proportional relief valve - pilot capacity, high pressure setting with no command

Capacity:  
.25 gpm (1 L/min.)  
Model:  
RBA

Product Description

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.



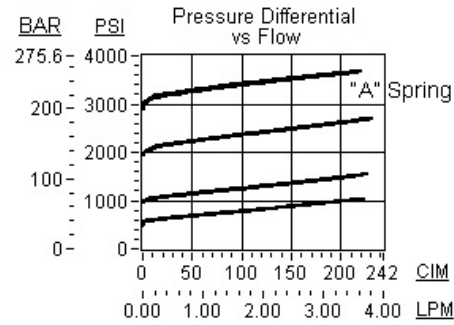
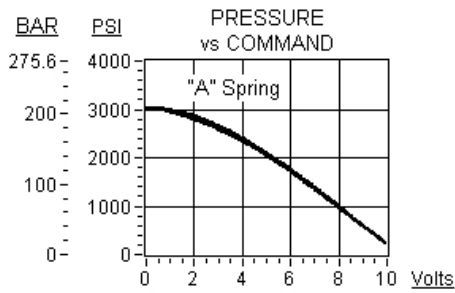
Technical Features

- Customer must specify a relief setting that falls within the selected spring range. This is the setting the valve defaults to with no command. 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.
- 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.
- 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.
- 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.

Technical Data

	U.S. Units	Metric Units
Cavity		T-8A
Capacity	.25 gpm	1 L/min.
Hysteresis (with dither)		<4%
Hysteresis with DC input		<8%
Linearity (with dither)		<2%
Repeatability (with dither)		<2%
Recommended dither frequency		140 Hz

Maximum Operating Pressure	4500 psi	315 bar
Maximum Valve Leakage at Reseat	1.5 in <sup>3</sup> /min.	25 cc/min.
Series (from Cavity)	Series P	
Reseat	>85% of Set Pressure	
Solenoid Tube Diameter	.75 in.	19 mm
Valve Hex Size	7/8 in.	22,2 mm
Valve Installation Torque	20 - 25 lbf ft	27 - 33 Nm
Model Weight (with coil)	1.00 lb	0,45 kg
Seal Kits - Cartridge	Buna: 990-208-007	
Seal Kits - Cartridge	Viton: 990-208-006	
Seal Kits - Coil	Viton: 990-770-006	
Model Weight	0.71 lb.	0.32 kg.



RBAN-XAN-\*\*\*

Control	Adjustment Range	Seal Material	Coil
Standard Options	Standard Options	Standard Options	*** See Coil Options Below
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 4500 - 3000 psi (210 - 315 bar)	N Buna-N V Viton	

Standard Coil Options

AMP Junior Timer	Deutsch DT04-2P	DIN 43650 4 pin (Hirschman)	Metri-Pack	SAE J858A	Twin Lead

*** no coil	612 AMP Junior Timer 12 VDC	812 Metri-Pack 12 VDC
212 DIN 43650 4 pin (Hirschman) 12 VDC	624 AMP Junior Timer 24 VDC	824 Metri-Pack 24 VDC
224 DIN 43650 4 pin (Hirschman) 24 VDC	712 Twin Lead 12 VDC	912 Deutsch DT04-2P 12 VDC
524 SAE J858A 24 VDC	724 Twin Lead 24 VDC	924 Deutsch DT04-2P 24 VDC

Embedded Coil Options

2B12A DIN 43650 4 pin (Hirschman) command common on fourth pin 12 VDC 0-20 mA	2C24V DIN 43650 4 pin (Hirschman) +5V reference on fourth pin 24 VDC 0-10V	4A12A Deutsch DT04-6P all functions enabled (separate command common, 5 v reference, and an enable) 12 VDC 0-20 mA
2B12V DIN 43650 4 pin (Hirschman) command common on fourth pin 12 VDC 0-10V	2D12A DIN 43650 4 pin (Hirschman) enable input on fourth pin 12 VDC 0-20 mA	4A12V Deutsch DT04-6P all functions enabled (separate command common, 5 v

			reference, and an enable) 12 VDC 0-10V
2B24A	DIN 43650 4 pin (Hirschman) command common on fourth pin 24 VDC 0-20 mA	2D12V	DIN 43650 4 pin (Hirschman) enable input on fourth pin 12 VDC 0-10V
2B24V	DIN 43650 4 pin (Hirschman) command common on fourth pin 24 VDC 0-10V	2D24A	DIN 43650 4 pin (Hirschman) enable input on fourth pin 24 VDC 0-20 mA
2C12A	DIN 43650 4 pin (Hirschman) +5V reference on fourth pin 12 VDC 0-20 mA	2D24V	DIN 43650 4 pin (Hirschman) enable input on fourth pin 24 VDC 0-10V
2C12V	DIN 43650 4 pin (Hirschman) +5V reference on fourth pin 12 VDC 0-10V	2F12V	DIN 43650 4 pin (Hirschman) programmable ramps, separate rise and fall 12 VDC 0-10V
2C24A	DIN 43650 4 pin (Hirschman) +5V reference on fourth pin 24 VDC 0-20 mA	2F24V	DIN 43650 4 pin (Hirschman) programmable ramps, separate rise and fall 24 VDC 0-10V
		4A24A	Deutsch DT04-6P all functions enabled (separate command common, 5 v reference, and an enable) 24 VDC 0-20 mA
		4A24V	Deutsch DT04-6P all functions enabled (separate command common, 5 v reference, and an enable) 24 VDC 0-10V
		4F12V	Deutsch DT04-6P programmable ramps, separate rise and fall 12 VDC 0-10V
		4F24V	Deutsch DT04-6P programmable ramps, separate rise and fall 24 VDC 0-10V

*Additional Options*

*Additional Coils*

512 SAE J858A 12 VDC

\* Special Setting required, specify at time of order

