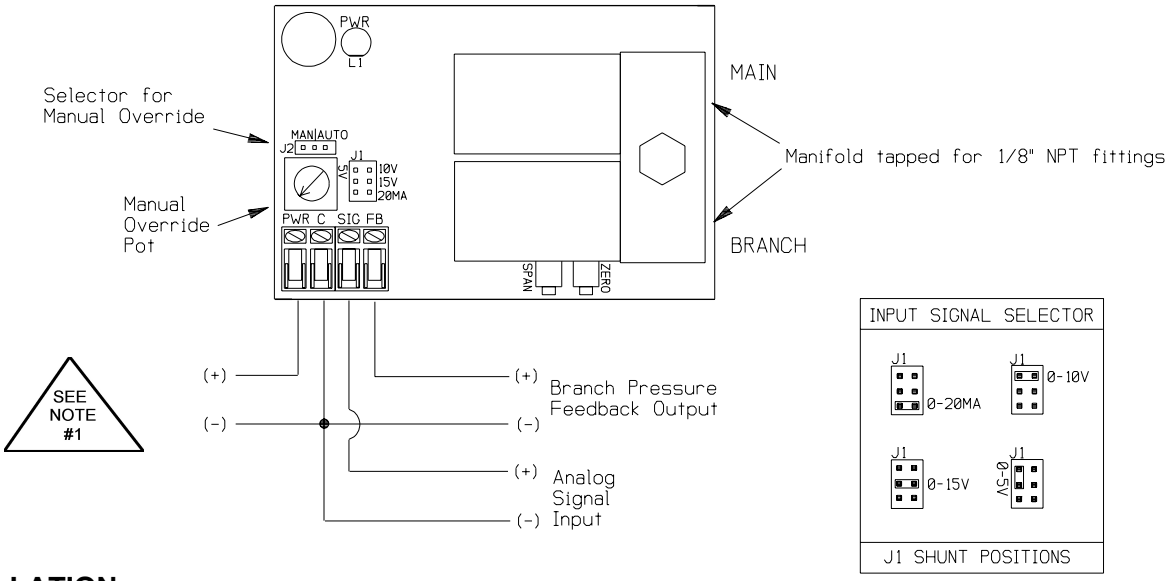
# PXP100

*Analog Current or Voltage to 100 psig Pressure Output*




## INSTALLATION

**READ THESE INSTRUCTIONS BEFORE YOU BEGIN INSTALLATION.**

Ground yourself before touching board. Some components are static sensitive.

MOUNTING:

Circuit board may be mounted in any position. If circuit board slides out of snap track, a non-conductive "stop" may be required. Use only fingers to remove board from snap track. Slide out of snap track or push against side of snap track and lift that side of the circuit board to remove. Do not flex board or use tools.

**POWER CONNECTIONS - THIS PRODUCT ACCEPTS 24 VDC or 24 VAC POWER.**

Be sure to follow all local and electrical codes. Refer to wiring diagram for connection information. **Be sure to make all connections with power off.**

NOTE #1

1) DC Power - Refer to wiring diagram for connection information.

   If the 24 VDC power is shared with devices that have coils such as relays, solenoids, or other inductors, each coil must have an MOV, DC Transorb, or diode placed across the coil or inductor. The cathode, or banded side of the DC Transorb or diode, connects to the positive side of the power supply.

2) AC Power - Refer to wiring diagram for connection information.

   Check the wiring configuration of any other loads that may be connected to this transformer. If required by BAS or controller specification, the 24 VAC neutral can be earth grounded at the transformer. Analog input, digital input, and analog output circuits should not be earth grounded at two points. Any field device connected to this transformer must use the same common. If you are not sure of other field device configuration, use separate transformers for isolation.

   If the 24 VAC power is shared with devices that have coils such as relays, solenoids, or other inductors, each coil must have an MOV, AC Transorb, or other spike snubbing device across each of the shared coils. Without these snubbers, coils produce very large voltage spikes when de-energizing that can cause malfunction or destruction of electronic circuits.Refer to wiring diagram for connection information.

3) You should measure the actual voltage output of the secondary. If the output is not fully loaded you may read a higher voltage than the circuit board can handle.

Warranty does not include malfunction due to clogged valve. Main air port should be filtered. Do not operate without main air supplied.

The surface between the manifold and pressure transducer is a pressure seal. Minimize stress between the circuit board and the manifold by holding the manifold in one hand while installing 1/8" NPT fittings.

**This unit requires at least four cubic inches (minimum) of branch air line capacity (approx. 28 feet of 1/4" O.D. Polyethylene tubing) to operate without oscillation.**

Field calibration voids warranty.

## CHECKOUT

Select one of the four input signal combinations by moving the jumper shunt as shown in "Input Signal Selector"

Verify the MAN/AUTO jumper shunt is in the AUTO position (jumper over center pin and AUTO pin). In AUTO, the manual override pot is inactive and the analog input signal is supplying the set-point. When in the MAN position, the manual override pot is supplying the set point and the analog input signal is locked out. Use a small bladed screwdriver to increase or decrease the pneumatic output.

Supply power and the LED power indicator will light, but only measurement will verify proper voltage. Apply minimum and maximum input signals and measure response. Response between the minimum and maximum values will be linear, therefore software algorithms are easy to derive.

The feedback signal range on all selections is 0 to 5 VDC and is proportional to the output pressure range of 0-100 psig (689.5 kPa).

The output and feedback signal will continue to vary proportionally if the input signal is increased beyond its upper limit (if there is enough main air available). However, do not exceed the listed maximum input signal voltage by more than 25%.

The PXP100 incorporates two valves and is not a constant bleed controller. Its branch exhaust flow and response time is not limited by any internal restrictor and is similar to its load rate. The PXP100 is ideal for long branch line runs, multiple actuators, and outside air dampers because of it's 750 scim (12.29 liters) capacity.

Note: If power to the PXP100 is lost, it will maintain branch line pressure (assuming no branch line leaks).

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| Power Supply Voltage: | 24 VDC or 24 VAC +/- 10% at PXP100 terminals | Air Supply pressure: | 110 psig (758.4 kPa) maximum supply pressure |
| Supply Current: | 150 mA maximum | | 0-100 psig (689.5 kPa) output pressure range |
| Feedback Signal Output: | Factory Calibrated | | Air Flow, @ 100 psig (689.5 kPa) main/95 psig (655 kPa) 0ut, 750 scim (12.29 liters), Exhaust rate: 750 scim (12.29 liters) |
| | 0-5 VDC = 0-100 psig (0 to 689.5 kPa) | Accuracy: | 1% at room temperature<br>3% over full operating temperature range |



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