



INTERFACE SERIES

Installation & Operation Instructions
PTP

Phone: 1-888-967-5224
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GENERAL INFORMATION

Two models of the PTP accept either a 3 to 15 or 3 to 30 psig pneumatic pressure input and convert it to one of four proportional analog output ranges of 1-5, 2-10, 3-15 VDC or 4-20 mA which are jumper shunt selectable. A plugged gauge port is provided in the aluminum manifold for local mechanical indication via an optional 0 to 30 psi gauge. Custom calibration is available upon request for an additional charge. This will speed up installation time for the end user.

MOUNTING INSTRUCTIONS

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.**

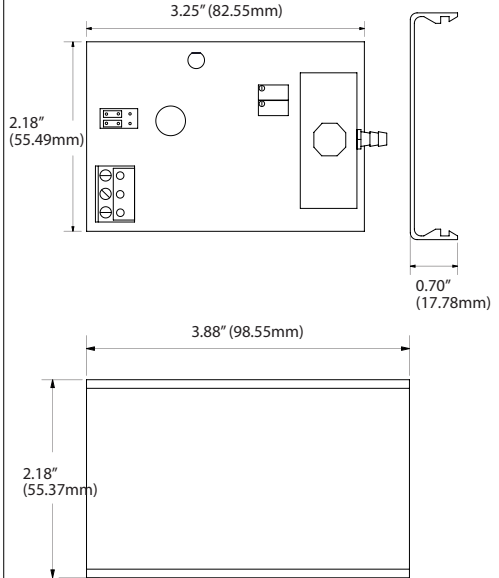
WIRING INSTRUCTIONS

PRECAUTIONS

- **Remove power before wiring. Never connect or disconnect wiring with power applied.**
- **When using a shielded cable, ground the shield only at the controller end. Grounding both ends can cause a ground loop.**
- **It is recommended you use an isolated UL-listed class 2 transformer when powering the unit with 24 VAC. Failure to wire the devices with the correct polarity when sharing transformers may result in damage to any device powered by the shared transformer.**
- **If the 24 VDC or 24VAC power is shared with devices that have coils such as relays, solenoids, or other inductors, each coil must have an MOV, DC/AC Transorb, Transient Voltage Suppressor (ACI Part: 142583), 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. Without these snubbers, coils produce very large voltage spikes when de-energizing that can cause malfunction or destruction of electronic circuits.**
- **All wiring must comply with all local and National Electric Codes.**

FIGURE 1: DIMENSIONS

PTP



PTP With Gauge

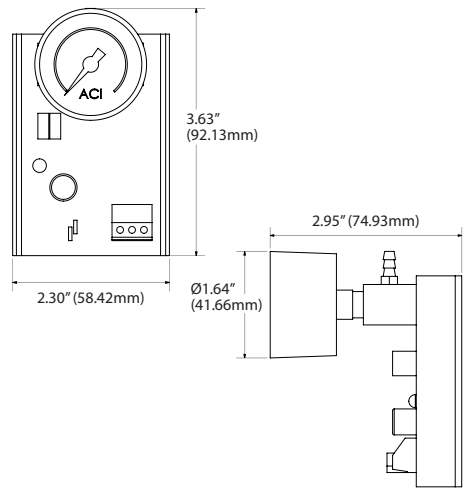
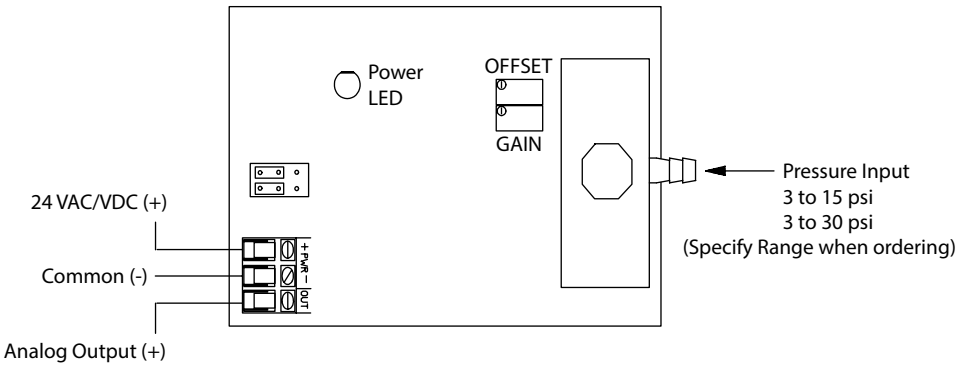


FIGURE 2: WIRING



WIRING INSTRUCTIONS *(Continued)*

The gauge port will accept a miniature 1/8" FNPT back-ported pressure gauge to allow direct reading of branch line pressure. The gauge should be sealed with Teflon sealing tape. A backup wrench should be used to hold the manifold. ADJUSTMENT OF INSTALLED GAUGES. If installation requires adjustment of the gauge for proper reading of the face, turn the gauge no more than 1/2 turn in either direction. O rings in the bottom of the gauge port will allow this without leakage.

The surface between the manifold and pressure transducer is a pressure seal. Do NOT stress the circuit board or allow the manifold to move. Hold the manifold in one hand while installing pneumatic tubing onto the fitting and use care when removing tubing to avoid damaging fitting or moving manifold.

SETUP

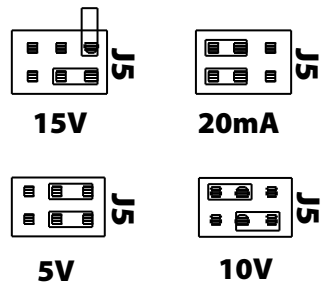
With power off, select jumper position on jumper block J5 corresponding to the output required (see **Figure 3**).

CHECKOUT

Apply power to terminals "PWR" (+) and (-). The PTP will begin tracking and responding to the pressure input signal instantly. Apply minimum and maximum pressure (or vacuum) and measure response. Check test meter for proper scale selection and correct lead connection. Response between the minimum and maximum values will be linear, therefore software algorithms should be easy to derive.

FIGURE 3: J5 SHUNT SWITCH

Output Selector



PRODUCT SPECIFICATIONS

| NON-SPECIFIC INFORMATION | |
|--|--|
| Supply Voltage: | 24 VDC or 24 VAC, -6%/+10% |
| Supply Current: | 50 mA maximum @ 24 VDC |
| Output Signal Range (@ Impedance): | 1-5 VDC @ 250Ω 2-10 VDC @ 500Ω 3-15 VDC @ 750Ω 4-20 mA @ 500Ω |
| Input Pressure Range: | PTP 3-15: 3 to 15 psig PTP 3-30: 3 to 30 psig |
| Output Analog Accuracy: | 2% full scale at room temperature 3% full scale across operating temperature range |
| Filtering: | Furnished with integral-in-barb 80-100 micron filter (Part # PN004). |
| Connections: | 90° Pluggable Screw Terminal Blocks |
| Wire Size: | 16 (1.31 mm ²) to 26 AWG (0.129 mm ²) |
| Terminal Block Torque Rating: | 0.5 Nm (Minimum); 0.6 Nm (Maximum) |
| Connections Pneumatic Tubing Size-Type: | 1/4" O.D. nominal (1/8" I.D.) polyethylene |
| Pneumatic Fitting: | Removeable brass barbed fitting in machined aluminum manifold Plugged 1/8-27-FNPT gauge port Gauge installed at additional cost |
| Gauge Pressure Range (Gauge Models): | 0-30 psig (0-200 kPa) |
| Gauge Pressure Accuracy (Gauge Models): | ± 2.5% Midscale (± 3.5% Full Scale) |
| Operating Temperature Range: | 35 to 120°F (1.7 to 48.9°C) |
| Operating Humidity Range: | 10 to 95% non-condensing |
| Storage Temperature: | -20 to 150°F (-28.9 to 65.5°C) |

WARRANTY

The PTP Series is covered by ACI's Two (2) Year Limited Warranty, which is located in the front of ACI'S SENSORS & TRANSMITTERS CATALOG or can be found on ACI's website: www.workaci.com.

W.E.E.E. DIRECTIVE

At the end of their useful life the packaging and product should be disposed of via a suitable recycling centre. Do not dispose of with household waste. Do not burn.



