January 1999

Field-Mount Pressure-to-Current Transmitter

Data Sheet 5.22

Description

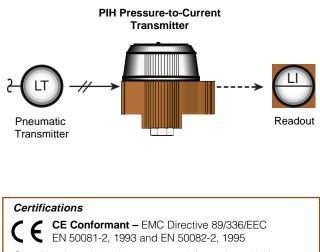
Moore Industries' durable PIH Pressure-to-Current Transmitter provides an economical solution for any process that requires a rugged instrument capable of interfacing a pneumatic device with a data acquisition/control system, controller, recorder, or other electronic instrument.

This compact yet powerful unit accepts most pneumatic signals (3-15 psig, 0.2-1 bar, 3-27 psig, etc.) and accurately converts them to a proportional 4-20mA output.

The PIH is perfect for field mounting. Its metal casing makes it a tough field-mount unit when you need strength without the added expense of an explosion-proof enclosure.

Moore Industries also provides an entire selection of current-to-pressure converters, temperature transmitters, signal transmitters, alarms, signal isolators, and many other units for use with your PIH. Contact your Moore Industries representative or call the nearest Moore Industries facility for details.

Figure 1. The PIH converts a wide range of signals to a standard, 4-20mA isolated output.



General location and hazardous area approvals from major worldwide certification agencies have been applied for. Consult the factory for details.



Moore Industries' PIH pressure-to-current transmitter is ideal for mounting in rugged field environments.

Features

NEW

- Perfect for harsh field environments. Designed to be CE Conformant, the PIH is water tight, dust-tight, and resistant to corrosion and chemicals.
- **Saves installation costs.** Use the PIH to reduce costs by running electrical wiring instead of fragile and expensive pneumatic tubing from remote pneumatic devices.
- Immune to shock, vibration, and position.
 An advanced, high-technology sensor allows the PIH to perform with exceptional accuracy in unstable environments or unusual mounting positions.
- **RFI/EMI protection.** Special circuit and housing designs protect against the harmful and unpredictable effects of radio frequency and electromagnetic interference.
- Reverse Output Option. A special reverse output option sets the output to decrease proportionally as input increases, making the PIH a flexible choice for a variety of applications.

Specifications

| Performance | Calibration Capability: ±0.2% of span including independent linearity as defined in SAMA Standard PMC 20.1–1973 Repeatability: Within ±0.1% of input span Resolution: ±0.05% of input span Maximum Non-Linearity: ±0.2% as per SAMA PMC 20.1–1973 Load Capability: 600 ohms at nominal 24Vdc Load Effect: ±0.01% of span from zero to maximum load Pressure Limit: 150% full scale input pressure without damage | | RFI/EMI Effect: With field strengths of 30 V/m at frequencies of 20-1000MHz, less than ±0.2% span change when | | ¹ / ₂ -inch NPT entry ports or M20 cable and ¹ / ₄ -inch NPT process connections. Type: Multiturn |
|-------------|---|--|---|--|--|
| | | | tested according to IEC 1000-4-3-1995 Input: Instrument air only Output Limit: 130% of output span Output Ripple: Negligible Line Voltage Effect: Less than ±0.01% of span | | adjustments (no interac- tion between span and zero adjustments) Span: Fully adjustable to 100% of output span Zero: Adjusts 0 to ±10% of span |
| | | | per volt of line voltage change at the input terminals Range: -1°C to +54°C (+30°F to +129°F) Effect: Less than ±2.0% of full scale input over above range | | Metal Cover: 808 grams (28.5 ounces) Polyester Cover: 623.5 grams (22 ounces) |

Ordering Information

| Unit | Input | Output | Power | Options | Housing |
|---|--|--------|---------|--|--|
| PIH Field-Mount Pressure-to- Current Transmitter | 0-15PSIG 3-15PSIG 0-30PSIG 3-27PSIG 6-30PSIG .2-1BAR .2-1KGCM2 20-100KPA 20-186KPA (special ranges available, consult factory for specification changes) | 4-20MA | 12-42DC | -RO Reverse Output, output decreases as input increases. | WDNS Aluminum body with black PBT polyester, Valox 357U cover; NPT pneumatic ports and ½-inch NPT female electrical entry port WDNA Aluminum body with aluminum cover (black polyurethane paint); NPT pneumatic ports and ½-inch NPT female electrical entry port WDMS Aluminum body with black PBT polyester, Valox 357U cover; NPT pneumatic ports and M20X1.5 (metric) female electrical entry port WDMA Aluminum body with aluminum cover (black solid polyurethane paint); NPT pneumatic ports and M20X1.5 (metric) female electrical entry port WDMA Aluminum body with aluminum cover (black solid polyurethane paint); NPT pneumatic ports and M20X1.5 (metric) female electrical entry port P suffix indicates enclosure comes equipped with base plate and U-bolts for mounting on a 2-inch pipe (i.e. WDNAP) |

To order, specify: Unit / Input / Output / Power / Options [Housing] Model Number Example: PIH / 3-15PSIG / 4-20MA / 12-42DC / -RO [WDMS]

