

Paine 226-10-010 Series Pressure Transmitter

Digital, Differential, +123 °C, Pressure and Temperature, Ranges to 5,000 PSIA (344 BAR)



Designed for the most extreme environments, the 226-10-010 Series Digital Differential sensors offer precise hydraulic and pneumatic pressure measurements from 0-5,000 PSID (344 BAR), with temperature measurements from -40 °F to +255 °F (-40 °C to +123 °C).

Offered in a standard RS-485 digital output, the 226-10-010 Series offers Area Ratio Programming allowing for corrected differential measurement which can be tailored to the customer's specific application and requirement. Useful in determining actuator force or position.

Solutions

- Harsh/Extreme Environment Ready
- Digital Measurement Accuracy.
- Pressure and Temperature Measurements.
- Differential and Individual port pressure measurements
- Port Adapters Available.

Potential Applications

- Industrial Hydraulic and Pneumatic Controls.
- Vehicle Steering Control Systems
- Actuator and Position Controls.
- Aviation and Automotive Test Systems.
- Military Equipment Positioning and Controls.

Features

- **Operating Temperature:** -40 °F to +255 °F (-40 °C to +123 °C).
- **Pressure Range:** 0-500 to 0-5,000 PSID (34 to 344 bar)
- **Accurate Digital Pressure Output:** Internally Compensated. High Accuracy regardless of temperature.
- **Digital Output:** RS-485.
- **Resolution:** 16 Bits Minimum. 0.08 PSI for 5,000 PSI Full Scale.
- **Temperature Output:** °F or °C.
- **Temperature Resolution:** 13 bits minimum, better than 0.05 °F.

Specifications

Calibration: Calibration Certificates are supplied with each unit and available on-line.

Performance

Error Band of Digital Pressure Output Over the Calibrated Temperature Range: (see [Pressure Table](#)).

Pressure Output in PSI: Fully compensated for temperature, non-linearity, zero offset and full scale output.

Pressure Resolution: 16 Bits minimum (see [Pressure Table](#)).

Temperature Output: °F or °C

Temperature Measurement: -40 °F to +250 °F (-40 °C to +121 °C).

Temperature Resolution: 13 Bits minimum. Better than 0.05 °F.

Area Ratio Programming: Custom Area Ratio (A1/A2) programmability available.

Environmental

Operating Temperature Range: -40 °F to +255 °F (-40 °C to +123 °C).

Calibrated Temperature Range: +32 °F to +250 °F (0 °C to +121 °C)

Contents

Specifications 2 Dimensional Drawings 4

Mechanical

Pressure Range: Contact factory for additional pressure ranges.

Pressure Table					
Standard Part Number	Common Mode (Line) Pressure Range PSI Max (BAR)	Differential Pressure Range, PSI Max (BAR)	Pressure Resolution, Better Than	Common Mode Differential Pressure Error, % of Full Scale	Single Port Absolute Pressure Error, % of Full Scale
226-10-010-01	500 (68)	1,500 (103)	0.008 PSI	± 0.25%	± 0.25%
226-10-010-02	5,000 (172)	3,750 (258)	0.077 PSI	± 0.25%	± 0.25%

Proof Pressure: 150% of rated range (line).

Burst Pressure: 250% of rated range (line).

Operating Media:

- 226-01-010-01: Fluids and gases compatible with 304 and 15-5 PH CRES.
- 226-01-010-02: Fluids compatible with 304 and 15-5 PH CRES.

Pressure Fitting: O-ring gland designed per MIL-P-5514, Type II, Class 2. O-rings (2) MS28775-008.

Weight: 6.0 oz. maximum.

Electrical

Excitation: 5.00 VDC ± 0.25 VDC.

Input Current: 40 mA maximum @ 5.00 VDC.

Insulation Resistance: All pins together to case. 100M Ω minimum at 50 VDC, 75 ± 10 °F.

Overvoltage Protection: Not protected from damage by the application of overvoltage. Do not exceed 5.5 VDC.

Reverse Polarity: “Excitation In” and “Excitation Return” are protected from the application of reverse polarity.

Differential Pressure Signal Polarity: Positive pressure signal if P1 > P2.

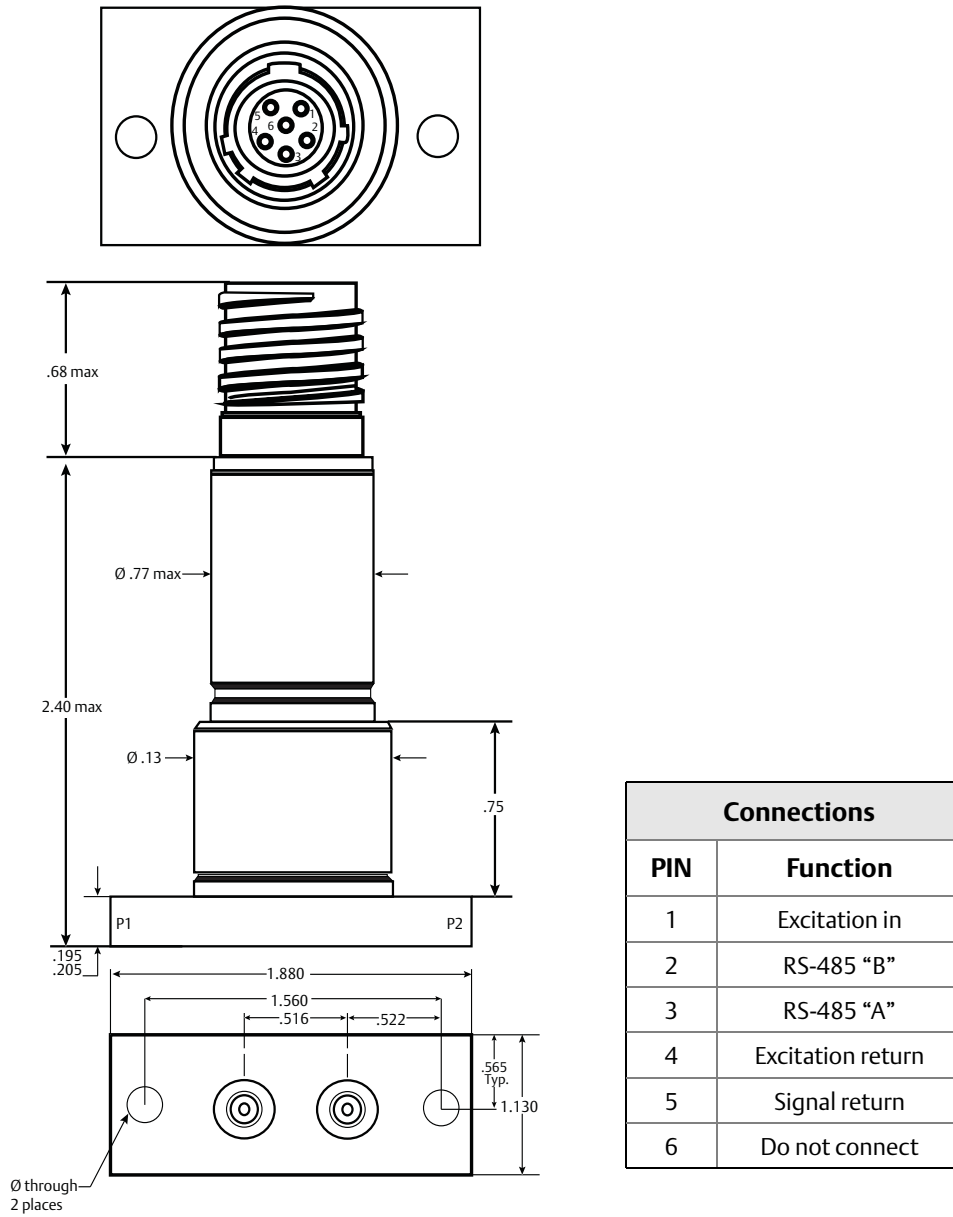
Digital Output: RS-485.

Electrical Connections: 6 Pin circular threaded MIL-DTL-38999 series connector (D38999/25YA35PN). Mates with Paine Electronics part number 247-99-102-01 (Connector with Strain Relief) sold separately.

User Guide and Programming: (Document 226-10-005) provided with each unit.

Dimensional Drawings

Figure 1. 226-10-010 Series






Dimensions are inches.


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