

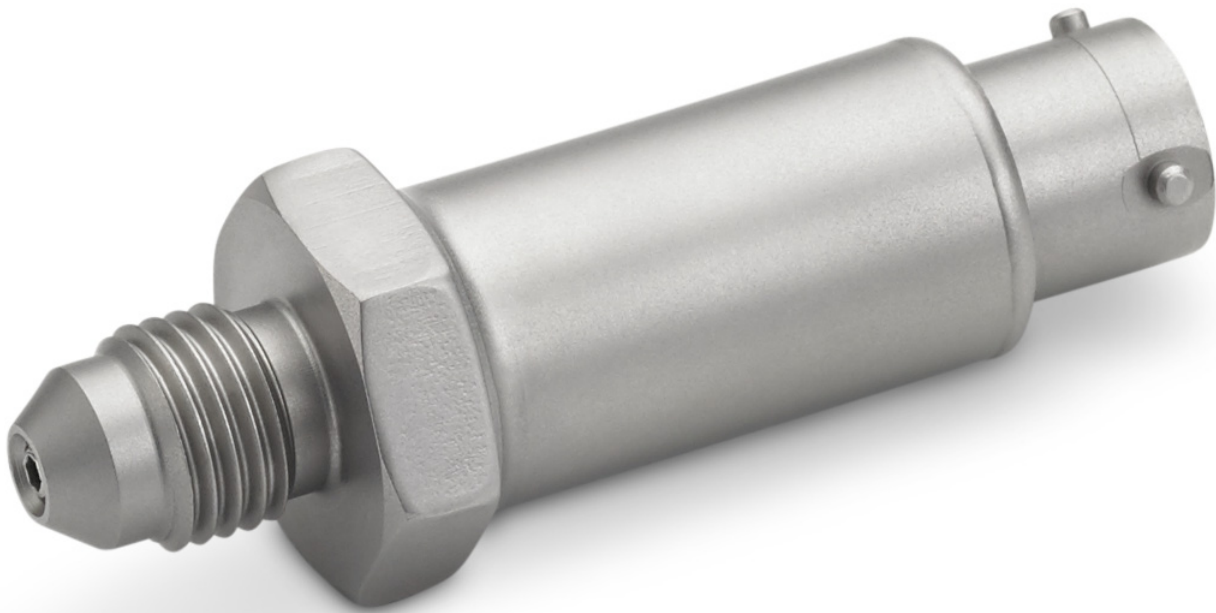


PRODUCT DATASHEET

www.high-accuracy.com

Paine™ 210-35-010 Series Pressure Transducer

mV/V, Rugged, +121 °C, Ranges to 5,000 PSIS (244 BAR)



Rugged stainless steel pressure sensor. Offered in pressure ranges from 0–500 to 0–5,000 PSIA and PSIS. All-welded, hermetically sealed construction to operate in the harshest hydraulic and pneumatic environments.

Reliable system pressure monitoring for informed decision making, which can lead to lower operating costs, reduced system failures, and optimized operations.

Solutions

- PSIS and PSIA (sealed and absolute options)
- All-welded, sealed construction
- Harsh/extreme environment ready
- 5/8-in. diameter package

Potential applications

- Industrial OEM equipment
- Test stands
- Remotely Operated Vehicles (ROV)
- Motion simulation systems
- Engine fuel pressure monitoring
- Hydraulic/pneumatic control systems

Features

- **Full Scale (F.S.) sensitivity:** 2.5 mV/VV $\pm 10\%$
- **Output at zero pressure:** $0 \pm 5\%$ of F.S. per $^{\circ}\text{F}$ maximum
- **Operating temperature:** -65 to $+250^{\circ}\text{F}$ (-53 to $+121^{\circ}\text{C}$)
- **Pressure range:** 0–500 to 0–5,000 psia (34 to 344 bar)
- **Operating media:** Any compatible with 17-4 PH CRES or 15-5 PH CRES
- **Pressure fitting:** Per AS4395E04

Specifications

Calibration: Calibration certificates are supplied with each unit and available online.

Performance

Full Scale (F.S.) sensitivity: 2.5 mV/VV $\pm 10\%$

Thermal zero shift: $\pm 0.01\%$ of F.S. per $^{\circ}\text{F}$ maximum

Thermal sensitivity shift: $\pm 0.005\%$ of F.S. per $^{\circ}\text{F}$ maximum

Static error band (non-linearity, hysteresis): See “Pressure Table” on page 3.

Output at zero pressure: $0 \pm 5\%$ of F.S.

Repeatability: Within $\pm 0.05\%$ of F.S.

Environmental

Environmental: Error due to combined effect of shock, vibration, and acceleration shall be less than 0.01% of F.S. per G.

- **Acceleration:** 20 G's per MIL-STD-810, method 513.1, Procedure I

- **Vibration:** 20 G's per MIL-STD-810, method 514.1, Procedure V Part 1

- **Shock:** 30 G's Per Mil-STD-810, method 516.1, Procedure IV.

Operating temperature range: -65 to $+250^{\circ}\text{F}$ (-53 to $+121^{\circ}\text{C}$)

Compensated temperature range: -25 to $+250^{\circ}\text{F}$ (-31 to $+121^{\circ}\text{C}$)

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Mechanical

Pressure range: Contact factory for additional pressure ranges.

Table 1. Pressure Table

Standard part number	Pressure range PSIS ⁽¹⁾ (BAR)	Proof pressure PSIS (BAR)	Burst pressure PSIS (BAR)	Static error band (BSLM)
210-35-010-04	0–5,000 (0–344)	7,500 (517)	10,000 (689)	± 0.25% F.S.

1. PSIS designation references a sealed chamber. The output is referenced to 14,696 PSIA)

Operating media: Any compatible with 15-5 PH CRES and 17-4 PH CRES

Pressure fitting: Per AS4395E04

Recommended installation torque: 65 in-lb maximum

Optional mounting: 0.250 outside diameter (O.D.) tubing with 37° flare

Electrical

Excitation: 10 VDC

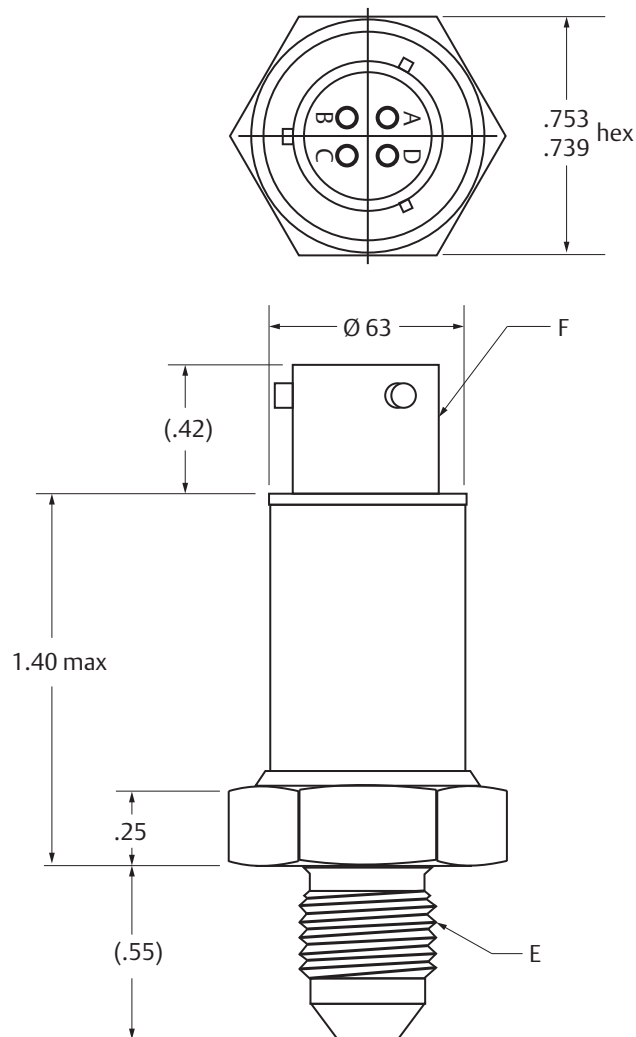
Input resistance: 350 ± 70 Ω

Output resistance: 350 ± 35 Ω

Electrical connections: Four pin bayonet locking electrical connector. Mates with MS3116-8-4S. (P/N: 247-99-100-01 sold separately).

Dimensional Drawings

Figure 1. Paine 210-35-010 Series



Connections	
PIN	Function
A	+ Excitation
B	+ Signal
C	- Signal
D	- Excitation

A–D. See Connections table.

E. Pressure fitting per AS4395E04

F. Four pin bayonet lock electrical connector

Dimensions are shown in inches.

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