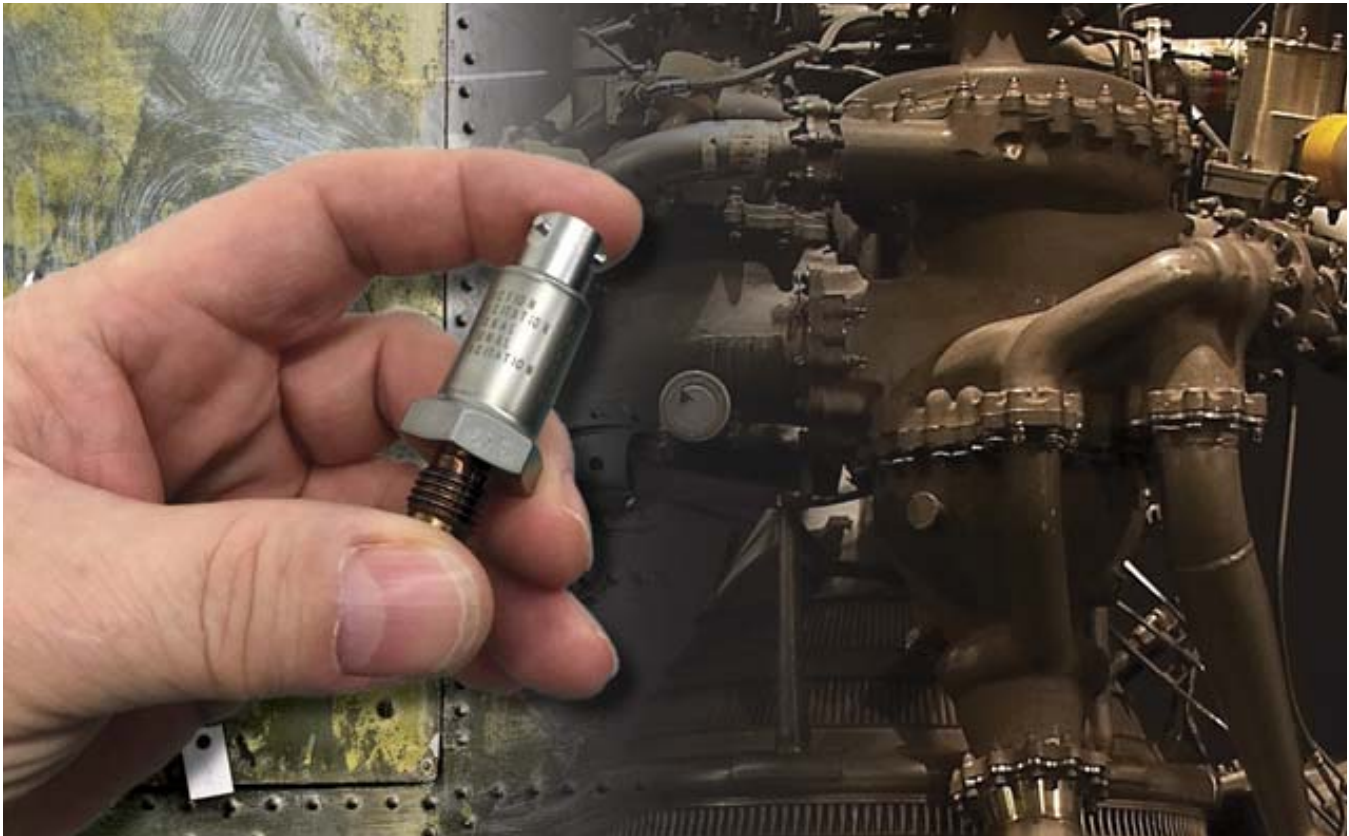


# Paine 210-30-110 Series Pressure Transducer

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



The 210-30-110 Series is a sealed, rugged, all welded stainless steel transducer used in general low level applications. Designed to operate in rigorous hydraulic and pneumatic systems, the 210-30-110 Series provides highly accurate and reliable system pressure monitoring directly at the point of measurement. Available in many pressure ranges (18 options available) with optional voltage inputs, electrical connections, pressure ports, special testing and thermal compensation.

## Solution

- PSIS and PSIA (Sealed & Absolute Options).
- All-Welded, Sealed Construction.
- Harsh/Extreme Environment Ready.

## Potential Applications

- Flight and Brake Controls.
- Guidance Systems.
- Industrial and Petroleum Processing.
- Military Ground Vehicle Hydraulic Monitoring.
- Liquid and Solid Propellant Combustion Chamber Pressure.
- Liquid Level of Depth

## Features

- **Full Scale (F.S.) Sensitivity:** 3.0 mV/V ± 10%.
- **Output at Zero Pressure:** 0 ± 5% of Full Scale.
- **Operating Temperature:** 65 °F to +250 °F (-53 °C to +121 °C).
- **Pressure Range:** 0-500 to 0-2,000 psis (34 to 137 bar).
- **Operating Media:** Any compatible with 15-5 PH CRES condition H1025 & 304 CRES.
- **Pressure Fitting:** Boss mounting per MS33649-4 using MS28775-012 size O-ring.

## Specifications

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

**Transducers designated “PSIS” have sealed reference chambers. The output is referenced to 14.696 PSIA.**

## Performance

**Full Scale (F.S.) Sensitivity:** 3.0 mV/V ± 10%.

**Thermal Zero Shift:** ± 0.01% of Full Scale (F.S.) per °F maximum.

**Thermal Sensitivity Shift:** ± 0.01% of Full Scale per °F maximum.

**Static Error Band (Non-Linearity, Hysteresis):** See “Pressure table” on page 3.

**Output at Zero Pressure:** 0 ± 5% of Full Scale.

**Repeatability:** Within ± 0.05% of Full Scale.

## Environmental

**Environmental:** Error due to combined effect of shock, vibration and acceleration shall be less than 0.01% of Full Scale 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 °F to +250 °F (-53 °C to +121 °C).

**Compensated Temperature Range:** -25 °F to +250 °F (+31 °C to +121 °C).

## Contents

Specifications..... 2      Dimensional Drawings .....4

## Mechanical

**Pressure Range:** Contact factory for additional pressure ranges. PSIA (Absolute) pressure ranges are also available.

Pressure table				
Standard part number:	Pressure range PSIS (BAR)	Proof pressure PSIS (BAR)	Burst pressure PSIA (BAR)	Static error band (BSLM)
210-30-110-01	0-500 (0-34)	750 (51)	1,250 (86)	± 0.35% F.S.
210-30-110-02	0-1,000 (0-68)	1,500 (103)	2,500 (172)	± 0.35% F.S.
210-30-110-04	0-2,000 (0-137)	3,000 (206)	5,000 (344)	± 0.35% F.S.

**Operating Media:** Any compatible with 15-5 PH CRES condition H1025 & 304 CRES.

**Pressure Fitting:** Boss mounting per MS33649-4 using MS28775-012 size O-ring.

**Recommended Installation Torque:** 65 in-lb. maximum.

**Optional Mounting:** 0.250 O.D. tubing with 37° flare.

## Electrical

**Excitation:** 10 VDC.

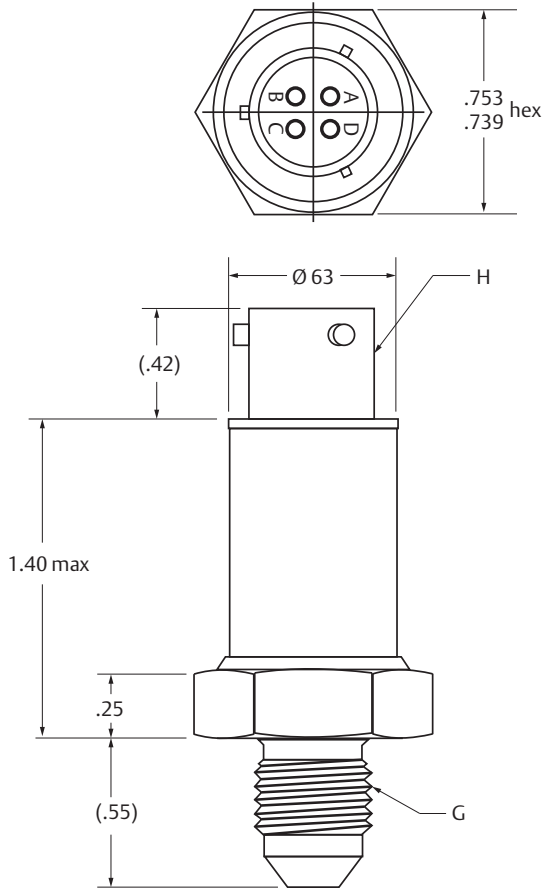
**Input Resistance:**  $350 \pm 70 \Omega$ .

**Output Resistance:**  $350 \pm 35 \Omega$ .

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

# Dimensional Drawings

Figure 1. 210-30-110 Series



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

- A - D. See Connections table
- G. Pressure fitting per MS33656-E4 except I.D.
- H. 4 pin bayonet lock electrical connector




Dimensions are inches.


This page is intentionally left blank.

**Rosemount Specialty Product LLC**

**Emerson Process Management**


5545 Nelpar Drive  
East Wenatchee, WA 98822, USA


 +1 509 881 2100  
 +1 509 881 2115  
 Paine.Products@Emerson.com

 [Linkedin.com/company/Emerson-Process-Management](https://www.linkedin.com/company/Emerson-Process-Management)

 [Twitter.com/Rosemount\\_News](https://twitter.com/Rosemount_News)

 [Facebook.com/Rosemount](https://www.facebook.com/Rosemount)

 [Youtube.com/user/RosemountMeasurement](https://www.youtube.com/user/RosemountMeasurement)

 [Google.com/+RosemountMeasurement](https://plus.google.com/+RosemountMeasurement)

Standard Terms and Conditions of Sale can be found at:  
[EmersonProcess.com/Rosemount](https://www.EmersonProcess.com/Rosemount)  
The Emerson logo is a trademark and service mark of Emerson Electric Co.  
The Paine brand and Paine logotype are trademarks of Emerson Electric Co.  
All other marks are the property of their respective owners.  
© 2016 Emerson Process Management. All rights reserved.