



# BI-DIRECTIONAL, DIFFERENTIAL COMPENSATED TRANSDUCERS

The **210-60-090** is a high quality, dependable, bi-directional full-line differential pressure transducer suitable for high shock and vibration applications with superior long-term stability, and excellent repeatability and hysteresis.

The **210-60-090** is temperature compensated, operating at temperatures from **-65°F to +250°F** (-53°C to +121°C) in pressure ranges of **0-500 to 0-5000 PSID** and has a very low thermal zero shift of **± 0.01%** of full scale output per °F.

Offered in a small/light weight package for applications where space is limited, the **210-60-090** can be provided with optional mounting adapters, pressure port configurations and/or electrical connections for increased flexibility.

### Specifications:

**Typical Performance:** The following parameters are established from production units.

**Calibration Data:** Calibration Certificates are supplied with each unit.

### Performance: \*

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

**Thermal Sensitivity Shift:** ± 0.01% of F.S.O. per °F maximum.

**Full scale (F.S.) Sensitivity:** P1=2.0 mV/V ± 10%, P2=P1 ± 2.0% of P1

**Output at Zero Differential Pressure:** 0 ± 5.0% F.S.O.

**Non-Linearity and Hysteresis Combined:** ± 0.25% F.S.O. to ± 0.35% (depending on part option).

**Repeatability:** Within ± 0.10% of F.S.O.

**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).

### Mechanical: \*

**Pressure Range:** 0-500 to 0-5,000 PSID.

**Proof Pressure:** 175% of rated range (line and differential).

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

**Pressure Media:** Any compatible with 300 series CRES, Buna-N-Rubber, 2024-T351 AL, and 15-5 PH CRES.

**Electrical Connections:** 4 pin bayonet connector. Mates with MS3116-8-4S.

**Pressure Port:** Manifold mounting per MIL-P-5514, Type II, Class 2. Recommended O-rings MS28775-008 are supplied with each transducer.

Optional adapters, ports, connections and more are available upon request.

**Weight:** 1.8 ounces nominal (0.051 kg).

**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, PROC. I **Vibration:** 20 G's per MIL-STD-810, METHOD 514.1, PROC. V, **Shock:** 30 G's per MIL-STD-810, METHOD 516.1, PROC. IV.

### Electrical: \*

**Excitation:** 10 VDC.

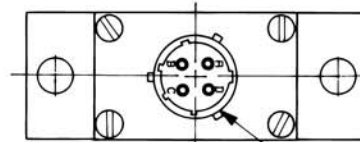
**Input Resistance:** 350 ± 70 Ω.

**Output Resistance:** 350 ± 35 Ω.

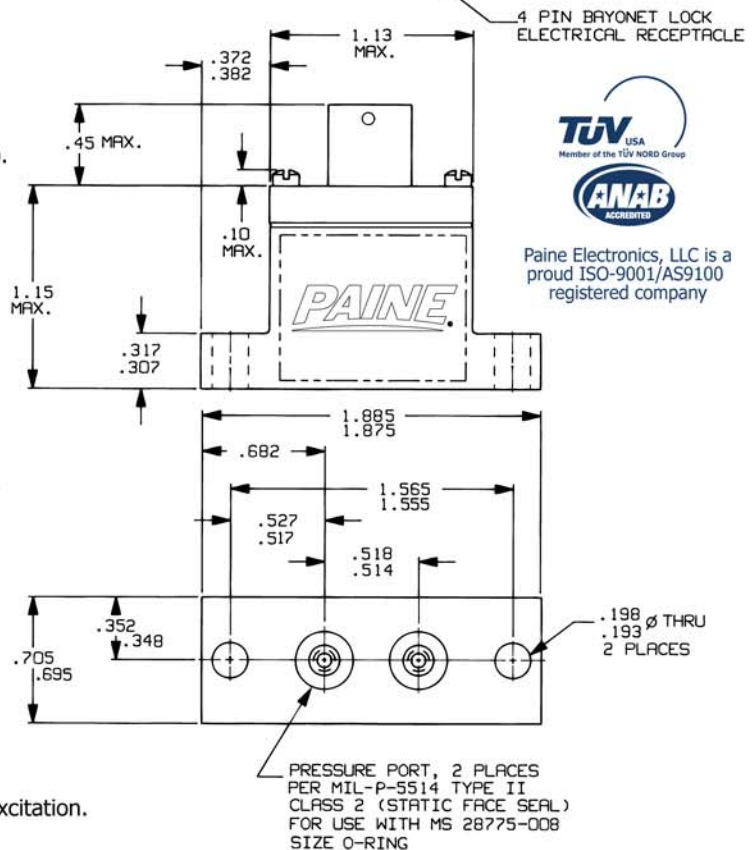
**Electrical Connections:** A= + Excitation, B= + Signal, C= - Signal, D= - Excitation.



**210-60-090-XX**  
0-500 to 0-5,000 PSID  
MEDIA: 300 Series  
CRES, 2024-T351 AL  
& 15-5 CRES



Actual Size



Paine Electronics, LLC is a proud ISO-9001/AS9100 registered company

### Datasheet P/N: 210-60-090-DS\_REV-D

\* Contact us or your authorized Paine Electronics representative for other standard and/or custom configurations or options.

All specifications are subject to change or modification without notice. PAINÉ® is a registered trademark of Paine Electronics, LLC. Copyright © Paine Electronics, LLC | All Rights Reserved

Call or email us today for more information!

**509-881-2100**  
moreinfo@paineelectronics.com

**Paine Electronics, LLC**  
5545 Nelpar Drive, East Wenatchee WA 98802  
Tel: (509) 881-2100 | Fax: (509) 881-2115

Visit us on the web at:  
[www.paineelectronics.com](http://www.paineelectronics.com)