Custom, Precision Pressure Instrumentation: Pressure Transducers, Transmitters & Temperature Probes

"Extremely High Precision, Long Term Stability, Reliability & Repeatability "

210-75 Series:
Low Pressure Transducer
0-100 to 0-1,500 PSIS

The **210 -75** is a moderately priced transducer series and is hermetically sealed in an all welded stainless steel case. The **210-75** is a rugged unit and is ideally suited for use in dirty environments where reliability is important.

- **Wide range of pressure options.**
- **Small size and compact design.**
- **Hermetically sealed all welded construction.**
- **Fully calibrated and environmentally tested**

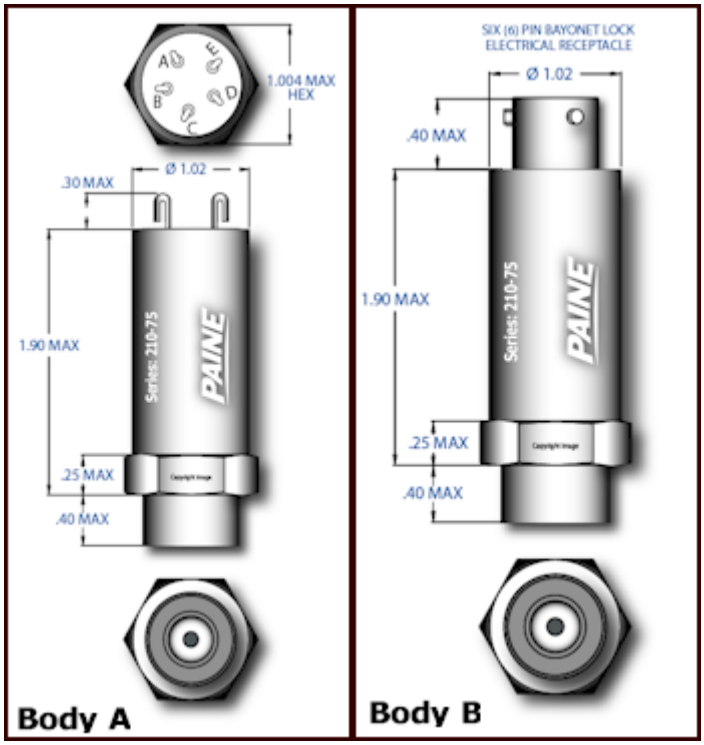
Products & Innovative Design: Paine Electronics provides a large selection of standard and custom transducers designed to meet the various requirements of most pressure monitoring applications. For more demanding and customer specific applications, our pressure transducers can be manufactured to comply with your specific and critical pressure monitoring demands.

Many models can be modified to meet your specific design and application requirements and are available with optional features including specific pressure ranges, voltage inputs, electrical connections, pressure ports, special testing and thermal compensation.

Need something new? Our Sales Engineering staff is ready to help with your next project.

Call Today! 509-881-2100
or visit us on the web at
www.paineelectronics.com

(Complete specifications on reverse side)



(Image is not actual size. For reference only.
Please see our web site for more complete information.)

Paine Electronics, LLC | 5545 Nelpar Drive East Wenatchee, WA 98802 | Telephone: 509-881-2100 | Fax: 509-881-2115
Data File: 210_75_A | Email: moreinfo@paineelectronics.com | www.paineelectronics.com

Specifications:

Typical Performance: The following parameters are established from production units.
Calibration Data: Calibration Certificates are supplied with each unit.

Pressure Data

Pressure Range: 0 - 100 through 0 - 1,500 PSIS
Proof Pressure: 150% of rated range
Burst Pressure: 300% of rated range
External Case Pressure: Up to 30,000 PSI

Thermal Properties

Operating Temperature Range: -65°F to +250°F
Compensated Temperature Range: -25°F to +250°F

Accuracy *(Referenced to a 2nd order polynomial)*

Non-Linearity and Hysteresis Combined: ± 0.01 % Full Scale (F.S.) Max. (best straight line method)
Total Error Band Including Nonlinearity, Hysteresis and Thermal Effects: ± 0.25% F.S.
Sustained Pressure/Temperature Stability: When pressurized to full scale pressure at 250°F, full scale output will not shift more than ±.03% F.S. in 14 days nor more than ±.05% F.S. in 60 days.
Stability & Repeatability: A transducer tested per Steps 1 through 5 below will exhibit a zero balance and sensitivity stability within 0.10 % F.S. from Step 1 to Step 5. Zero balance and sensitivity from Step 2 will repeat that of Step 4 within ± 0.10% F.S.

Step 1: Stabilize unit 4 hours at +100°F. Record output at 0 to 100% F.S. in 0.10% F.S. pressure steps.
Step 2: Stabilize unit 4 hours at +350°F. Record output at 0 to 100% F. S. in 0.10% F.S. pressure steps.
Step 3: Five pressure cycles from ambient to F.S. pressure and return. Hold 10 minutes at F.S. pressure steps.
Step 4: Within two hours after Step 3, record output at 0 to 100% F.S. in 0.10% F.S. pressure steps.
Step 5: Stabilize unit 12 hours minimum at +100°F. Record output at 0 to 100% F.S. in 0.10% F.S. pressure steps.

Physical Properties

Pressure Media: Any compatible with 15-5 PH CRES.
Pressure Port: Per MS33649-4
Installation Torque: 65 ± 10 in-lbs
Weight: 4.5 ounces nominal

Alternate pressure ports are available upon request. Instead of an o-ring, an Inconel 600®™ seal can be purchased and used for virtually maintenance-free, permanent installations.

Environmental

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

Error due to combined effect of shock, vibration, and acceleration shall be less than .02% of F.S. per G

Electrical

Excitation: 1 and 20 VDC (10 VDC nominal)
Input Resistance: 350 ± 70 ohms
Output Resistance: 350 ± 35 ohms
Output at Zero Pressure: 0 ± 5.0% F.S.
Output at Rated Pressure: 5.0 ± .05 VDC Nominal
Platinum Resistance Temperature Detector (RTD): 0°F, 1000 ohms ± 2.5 ohms to ± IEC 751 ± .12%, Alpha = .00385
Insulation Resistance: All conductors together to case: 10,000 Megohms minimum at 50 VDC and +77°F

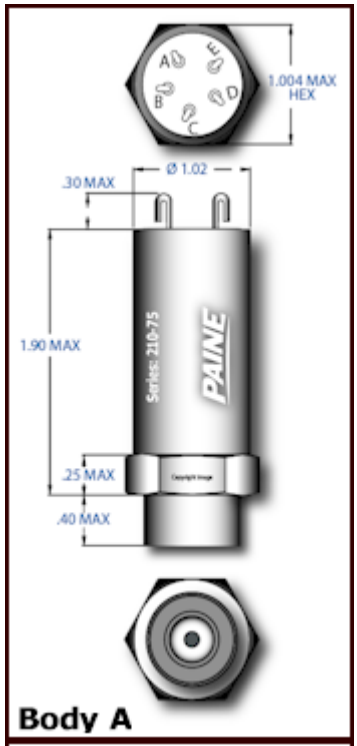
Electrical Connections

Electrical Connections: Mates with MS3116-10-6S or equivalent. Our part no 247-99-100-02 (250°F max. service only). Mating connector not supplied with transducer. *Alternate connection styles are available upon request.*
Pin A: (+) Excitation
Pin B: (+) Signal
Pin C: (-) Signal
Pin D: (-) Excitation
Pin E: No Connection
Pin F: No Connection

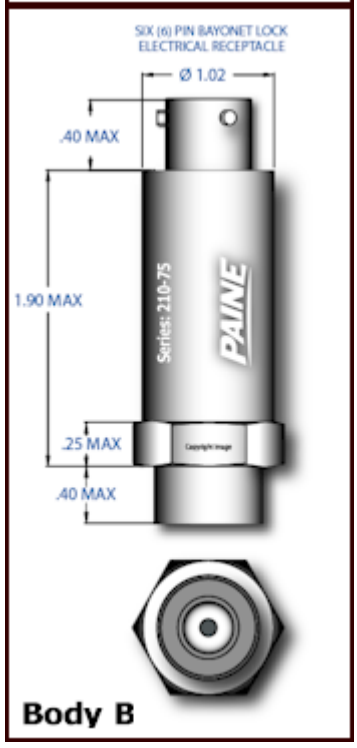
Paine Electronics, LLC | 5545 Nelpar Drive East Wenatchee, WA 98802 | Telephone: 509-881-2100 | Fax: 509-881-2115
Data File: 210_75_A | Email: moreinfo@paineelectronics.com | www.paineelectronics.com

210-75 Transducer Series Table

Part Number	Pressure Range (PSIG or PSIS)	Sensitivity ± .10%	Body Style
210-75-080-07	0 – 200 PSIS	3.0 mV/V	B
210-75-080-08	0 – 250 PSIS	3.0 mV/V	B
210-75-080-09	0 – 300 PSIS	3.0 mV/V	B
210-75-080-10	0 – 500 PSIS	3.0 mV/V	B
210-75-080-11	0 – 750 PSIS	3.0 mV/V	B
210-75-080-12	0 – 1000 PSIS	3.0 mV/V	B
210-75-080-13	0 – 1500 PSIS	3.0 mV/V	B
210-75-080-17	0 – 200 PSIA	3.0 mV/V	B
210-75-080-18	0 – 250 PSIA	3.0 mV/V	B
210-75-080-19	0 – 300 PSIA	3.0 mV/V	B
210-75-080-20	0 – 500 PSIA	3.0 mV/V	B
210-75-080-21	0 – 750 PSIA	3.0 mV/V	B
210-75-080-22	0 – 1000 PSIA	3.0 mV/V	B
210-75-080-23	0 – 1500 PSIA	3.0 mV/V	B
210-75-080-24	0 – 150 PSIA	2.5 mV/V	B
210-75-090-07	0 – 200 PSIS	3.0 mV/V	A
210-75-090-08	0 – 250 PSIS	3.0 mV/V	A
210-75-090-09	0 – 300 PSIS	3.0 mV/V	A
210-75-090-10	0 – 500 PSIS	3.0 mV/V	A
210-75-090-11	0 – 750 PSIS	3.0 mV/V	A
210-75-090-12	0 – 1000 PSIS	3.0 mV/V	A
210-75-090-13	0 – 1500 PSIS	3.0 mV/V	A
210-75-110-02	0 – 75 PSIS	3.0 mV/V	A
210-75-110-03	0 – 100 PSIS	3.0 mV/V	A
210-75-110-04	0 – 150 PSIS	3.0 mV/V	A
210-75-120-02	0 – 75 PSIS	3.0 mV/V	B
210-75-120-03	0 – 100 PSIS	3.0 mV/V	B
210-75-120-04	0 – 150 PSIS	3.0 mV/V	B
210-75-120-12	0 – 75 PSIA	3.0 mV/V	B
210-75-120-13	0 – 100 PSIA	3.0 mV/V	B
210-75-120-14	0 – 150 PSIA	3.0 mV/V	B



Body A



Body B

Paine Electronics, LLC | 5545 Nelpar Drive East Wenatchee, WA 98802 | Telephone: 509-881-2100 | Fax: 509-881-2115
Data File: 210_75_A | Email: moreinfo@paineelectronics.com | www.paineelectronics.com