



"PRESSURE INSTRUMENTATION
FOR THE TOUGHEST APPLICATIONS"

DOWNHOLE, ABSOLUTE, PRESSURE TRANSDUCERS

The **211-37-520** transducer is designed for applications requiring long term stability at high temperatures up to **+400°F (+204°C)** in corrosive environments. Features such as wide range of pressure options, a small size and rugged design, hermetically sealed all welded construction, fully calibrated and environmentally tested are just a few of the **211-37-520** benefits.

The Inconel 718®™ material used in construction is compatible with H₂S and other highly corrosive media. Instead of an O-ring, a replaceable Inconel 600 seal can be used for virtually maintenance-free, permanent installations.

Specifications:

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

Calibration Data: Calibration Certificates are supplied with each unit.

Performance: *

Non-Linearity and Hysteresis Combined: $\pm 0.15\%$ of Full Scale Output (F.S.O.) maximum.
(Best Straight Line Method)

Total Error Band Including Non-Linearity, Hysteresis and Thermal Effects: $\pm .75\%$ F.S.

Operating Temperature Range: -40°F to +400°F (-40°C to +204°C).

Compensated Temperature Range: +75°F to +350°F (+23°C to +176°C).

Mechanical: *

Pressure Range: 0-5,000 to 0-30,000 PSIA.

Proof Pressure: 125% to 150% of rated range (depending on part option).

Burst Pressure: 150%, 200% to 40,000 PSI of rated range (depending on part option).

Pressure Media: Any compatible with alloy UNS N07718 Rockwell C 40 maximum.

Environmental: Error due to combined effect of shock, vibration and acceleration shall be less than 0.01% of F.S.O. per G, 20G maximum.

External Case Pressure: Up to 20,000 PSI.

Electrical Connections: High temperature solderable connections.

Pressure Port: Per MS33656-E3.

Weight: 2.0 ounces nominal (.056 kg).

Installation Information: Manifold mount on port using Paine Electronics annealed Inconel 600 replaceable seal. Thermal coefficient of the manifold expansion should not exceed 8.3×10^{-6} in/in °F for operation above 100°C.

Recommended Installation Torque: 125 to 150 in-lb (14-17 Nm).

Electrical: *

Excitation: 1 to 20 VDC (10 VDC nominal).

Input Resistance: $1500 \pm 300 \Omega$.

Output Resistance: $1500 \pm 150 \Omega$.

Output at Zero Pressure: $0 \pm 2.0\%$ F.S.O.

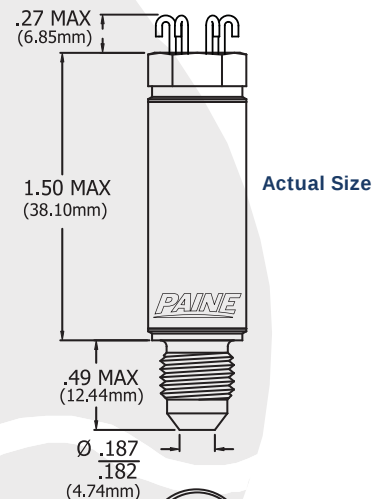
Full scale (F.S.) Sensitivity: $2.6 \text{ mV/V} \pm 0.2\%$.

Insulation Resistance: All conductors together to case, 10GΩ minimum at 50 VDC and +77°F.

Platinum Resistance Temperature Detector (RTD): 0°C, $1000 \Omega \pm .06\% \Omega$.

to IEC 751, Class A, Alpha = .00385 nominal.

Electrical Connections: A= + Excitation, B= + Signal, C= - Signal, D= - Excitation, E= RTD, F= RTD.



Paine Electronics, LLC is a
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registered company

Datasheet P/N: 211-37-520-DS_REV-F

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

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