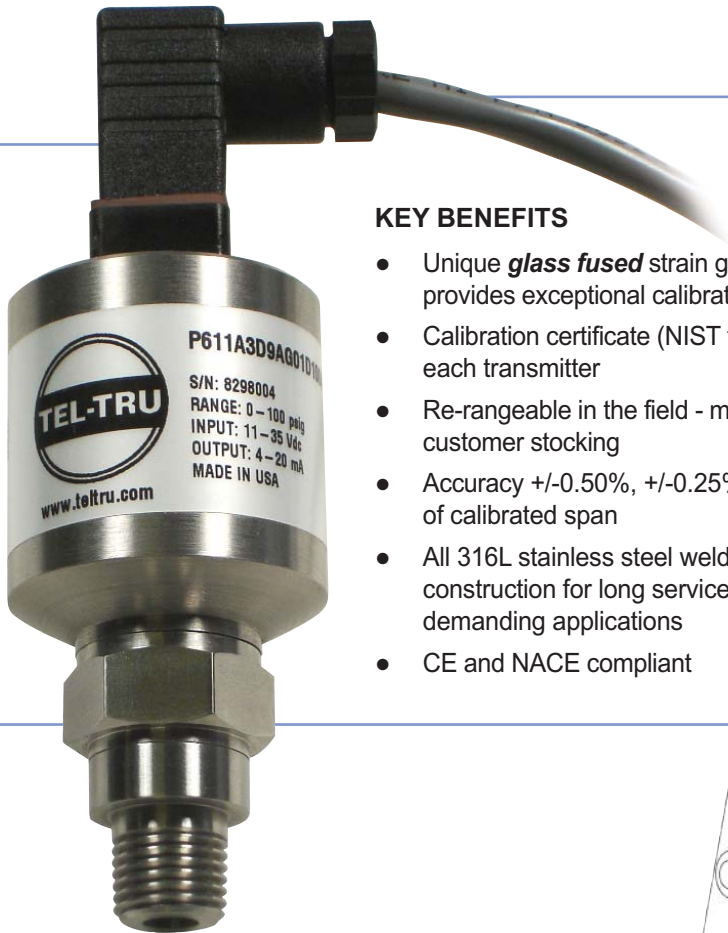




TEL-TRU MANUFACTURING COMPANY

MODEL P611 PRESSURE TRANSMITTER

Industrial *Silicon Glass Fused* Sensor Series



KEY BENEFITS

- Unique *glass fused* strain gauge sensor provides exceptional calibration stability
- Calibration certificate (NIST traceable) with each transmitter
- Re-rangeable in the field - minimizes customer stocking
- Accuracy +/-0.50%, +/-0.25%, or +/-0.15% of calibrated span
- All 316L stainless steel welded construction for long service life in demanding applications
- CE and NACE compliant

APPLICATIONS:

- Hydraulic and pneumatic controls
- Hydrogen fuel cells
- HVAC compressor systems
- Pump monitoring
- Die cast machines
- Plastic injection moulding
- Test stands
- Presses
- Oil and gas monitoring
- Laboratory testing

RANGES:

Many ranges from Vacuum to 0-10,000psi; also metric standard Bar and Kg/cm² ranges. Custom ranges readily accommodated.

CONNECTIONS:

Many pressure and electrical connections available. Custom connections can be accommodated.

OPTIONS:

- Certificate of Conformance
- Certificate of Calibration traceable to NIST, with five check points
- Restrictor orifice within the pressure connection for hydraulic spike suppression
- Silicone gel potting of electronics housing for added shock and vibration protection
- Sealed unit without customer accessible zero and span adjustment
- PTD-1 local plug-in loop powered indicator for use with the DIN 43650 A electrical connection and 4-20mA output electronics
- Tri-Clamp® and Cherry-Burrell® sanitary seals available, see Model P621

WARRANTY:

Three-year warranty, see website for details: www.teltru.com/t-P600.aspx

*Tri-Clamp® is a registered trademark of Ladish Company
Cherry-Burrell® is a registered trademark of United Dominion Industries, Inc.*



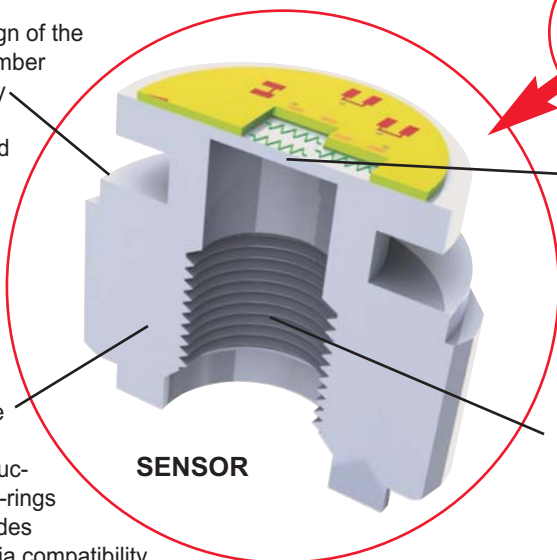
Thicker diaphragm and high output silicon glass fused strain gauge maximize cycle life and protection from pressure spikes

Dry sensor construction prevents contamination of customer media



Stepped design of the pressure chamber minimizes any effect on the sensor caused by overtightening during installation

Robust, single piece, 316L sensor construction without O-rings or seals provides optimum media compatibility



SENSOR

www.teltru.com

World-Class Instruments

Since 1916

MODEL P611 PRESSURE TRANSMITTER - Additional specifications at www.teltru.com/t-P600.aspx

FUNCTIONAL SPECIFICATIONS

Proof Pressure:
Up to 2 times URL *

Burst Pressure:
Up to 5 times URL or 20,000psi, whichever is less

Strength and Safety:
Pressure chamber structure tested to 40,000psi

Zero Adjustability:
Up to +/- 30% of calibrated span (output dependent), externally accessible

Span Adjustability:
Up to 2.5 to 1 turndown of URL, externally accessible

Outputs:
4-20mA, 2-wire 1-5V, 3-wire **
0-5V, 3-wire ** 1-6V, 3-wire **
0-10V, 3-wire ** 1-11V, 3-wire **

Output Impedance:
4-20mA: >10K Ohms
0-5V, 0-10V, 1-5V, 1-6V, 1-11V: <100 Ohms

Current Consumption:
4-20mA: 20mA
0-5V, 0-10V, 1-5V, 1-6V, 1-11V: <10mA @ 12V

Output Load:
4-20mA: 0-1000 Ohms @10-30Vdc
1-5V, 0-10V, 1-5V, 1-6V, 1-11V: >10K Ohms

Output Noise:
4-20mA: Negligible
0-5V, 0-10V, 1-5V, 1-6V, 1-11V: <2mV RMS

Power Supply Requirements:
10-30Vdc for 4-20mA
10-30Vdc for 0-5V, 1-5V, and 1-6V
14-30Vdc for 0-10V and 1-11V

Temperature Limits:
Compensated range: 30 to 130°F (0 to 55°C)
Operating range: -40 to 185°F (-40 to 85°C)
Storage range: -40 to 221°F (-40 to 105°C)

* URL = Upper Range Limit (see range code list on website, www.teltru.com/t-P600.aspx)

** All voltage outputs are customer configurable with external zero and span adjustments

PERFORMANCE SPECIFICATIONS

Accuracy:
+/-0.50% or +/-0.25% of calibrated span
+/-0.15% of calibrated span (4-20mA only)

Linearity:
+/-0.15% of calibrated span, BFSL ***
+/-0.05% of calibrated span, BFSL (4-20mA only)

Hysteresis:
Better than 0.05% of calibrated span

Repeatability:
Better than 0.02% of calibrated span

Response Time:
Less than 1ms

Zero Offset:
Within calibrated accuracy (+/-1% of URL for sealed housing option)

Span Tolerance:
Within calibrated accuracy (+/-2% of URL for sealed housing option)

Stability:
Better than +/-0.25% of URL for 1 year, non-accumulating

Durability:
Greater than 100,000,000 full scale cycles

Thermal Effect on Zero:
Less than +/-0.02% URL/°F (+/-0.036% URL/°C)

Thermal Effect on Span:
Less than +/-0.018% of calibrated span/°F (+/-0.032% of calibrated span/°C)

Shock:
Designed to withstand 10Gs, 11ms, 1/2 sine (50Gs with optional silicone gel potting)

Vibration:
Designed to withstand 10Gs peak, 20-2400Hz (50Gs with optional silicone gel potting)

CE Compliant:
Interference emission per EN 50 081-1 and EN 50 081-2 by design; Interference immunity per EN 50 082-2 by design; RFI, EMI, and ESD protected

*** Best-Fit-Straight-Line

PHYSICAL SPECIFICATIONS

Wetted Materials:
Single piece 316L Stainless Steel diaphragm structure, with welded on pressure connections

Environmental Rating:
Integral Cable and 1/2" NPT Conduit connections are IP65/IP67

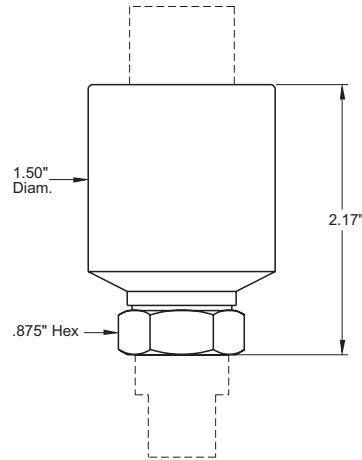
DIN 43650 A and C connections are IP65

M12 connection is IP65/IP67

Bendix Style connections are IP65

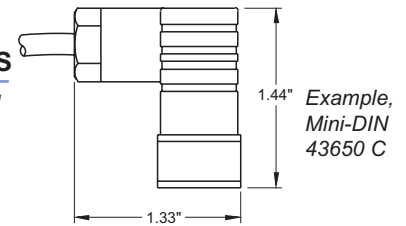
Hazardous Environment Rating:
Complies with Class 1, Div. 1, Groups A, B, C, D for intrinsically safe apparatus - Approval pending

NACE Compliant:
Materials fulfill requirements for H₂S Sour Gas service



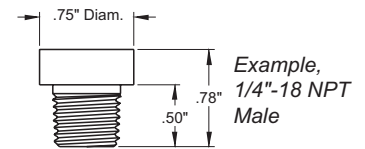
ELECTRICAL CONNECTIONS

Numerous standard connections readily available



PROCESS CONNECTIONS

Numerous standard connections readily available



WIRING COLORS AND PINOUTS

Output	Function	Integral Cable or 1/2"NPT w/Cable	DIN 43650 A	DIN 43650 C	M12	Bendix 4-pin	Bendix 6-pin
4-20mA 2-wire	+ Supply	Red	1	1	1	A	A
	+ Output	Black	2	2	3	B	B
0-5V, 0-10V, 1-5V, 1-6V, 1-11V 3-wire	+ Supply	Red	1	1	1	A	A
	Common	Black	2	2	3	B	B
	+ Output	White	3	3	4	C	C



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