



TEL-TRU MANUFACTURING COMPANY

MODEL P612 INTRINSICALLY SAFE 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
- Tri-Clamp® and Cherry-Burrell® sanitary seals available, see Model P622

WARRANTY:

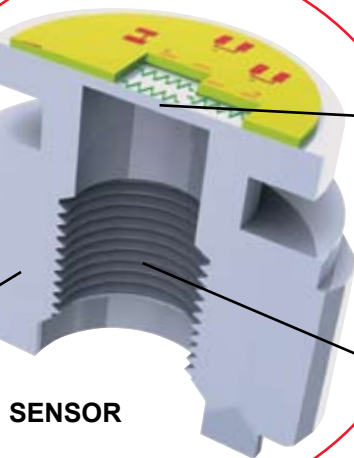
Three-year warranty, see website for details: www.teltru.com/t-P600.aspx

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



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

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



www.teltru.com

World-Class Instruments

Since 1916

MODEL P612 INTRINSICALLY SAFE PRESSURE TRANSMITTER - 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

Output:

4-20mA, 2-wire

Output Impedance:

>10K Ohms

Current Consumption:

20mA

Output Load:

0-1000 Ohms @10-28Vdc

Output Noise:

Negligible

Power Supply Requirements:

10-28Vdc

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)

PERFORMANCE SPECIFICATIONS

Accuracy:

+/-0.50% or +/-0.25% of calibrated span

+/-0.15% of calibrated span

Linearity:

+/-0.15% of calibrated span, BFSL** for

+/-0.50% or +/-0.25% accuracy

+/-0.05% of calibrated span, BFSL** for

+/-0.15% accuracy

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

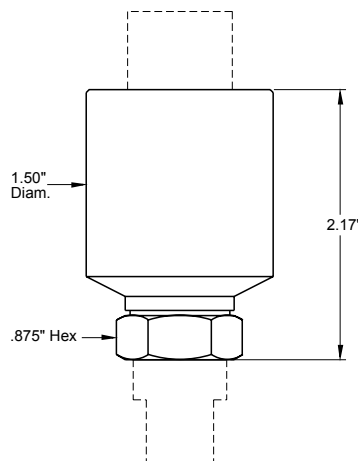
Bendix Style connections are IP65

Hazardous Environment Rating:

cCSAus Intrinsically Safe certified to Class I, Div. 1, Groups A, B, C, D when used with approved zener barrier systems per control drawing CTLDWG-CSA

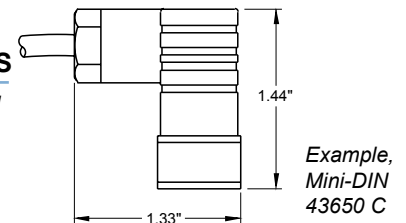
NACE Compliant:

Materials fulfill requirements for H₂S Sour Gas service



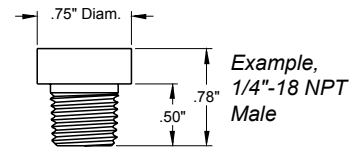
ELECTRICAL CONNECTIONS

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



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