

# P221

## Flush Diaphragm Pressure Transmitter



### *Precision Grade-- "Non-Filled" Flush Diaphragm Sensor*

#### **Designed for the highest system integrity**

Tel-Tru's P221 Pressure Transmitter is designed for the OEM and end user where ruggedness, high performance, and reliability are required at a competitive price. **Key feature of the P221 is its non oil-filled sensing element. The sensing diaphragm is machined from a solid piece of steel, and can withstand the most abrasive / cyclical applications. No thin diaphragm to break, to oil or to leak.**

*Hastelloy or Inconel sensors available*

#### **Manufactured for extended life cycle**

The P221 is designed to last in high cyclical environments with or without the presence of water-hammering or spiking. Advanced manufacturing techniques, extreme environmental burn-in and thorough residual stress relieving procedures ensure the P221 maintains its performance over time.

*NEMA 4X Packaging*

#### **Designed to meet Intrinsically Safe standards**

The P221 is designed to meet or exceed the standards for IS. FM/CSA approvals are pending.

#### **Certification**

Every P221 is shipped with a NIST traceable calibration certificate.

#### **CE**

Conforms to EN50081-2 and EN50082-2

#### **Standard Features**

- $\pm = 0.5\%$  FSO Static Accuracy
- NEMA 4X Packaging
- $\pm = 0.25\%$  FSO /YR stability

#### **Available Options**

- $\pm = 0.25\%$  FSO Static Accuracy
- Alternate Wetted Materials
- Zero/Span Controls/ Shunt Cal



Note: specifications are subject to change.



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# P221 Pressure Transmitter



Precision Grade Flush Diaphragm

0-100 psi through 0-7,500 psi

## Product Specifications

### Electrical

Excitation	
P221A, P221B	8-38 Vdc*
P221C	2-15 Vdc
Output	
P221A	4-20 mA
P221B	0-5 Vdc*
P221C	1-2 mV/V*
Zero Balance	= ±1% FSO
FSO Setting	= ±1% FSO
Resolution	Infinite (±.001% FSO usable)
Response Time	
P221A, P221B	< 3 mS
P221C	< 0.5 mS
Insulation Resistance	1000 MO @ 50 Vdc
Reverse Polarity	Protected
Warm-up	< 10 mS
Power Supply Effect	= ±.002% FSO per V input (P221A, P221B)
EMI/RFI	Internal Filtering (P221A, P221B)
Short Circuit Protected	Up to 40 Vdc (P221A, P221B)

### Performance

Static Accuracy	= ±0.5% FSO* (BFSL, RSS)* (combined effects of non-linearity, hysteresis & repeatability)
Repeatability	= ±0.1% FSO
Temperature Effects	= ±1.5% FSO over comp range* (combined effects of Zero & FSO with reference at 70°F)
Long Term Stability	= ±0.25% FSO per year

Note: specifications are subject to change.

### Mechanical

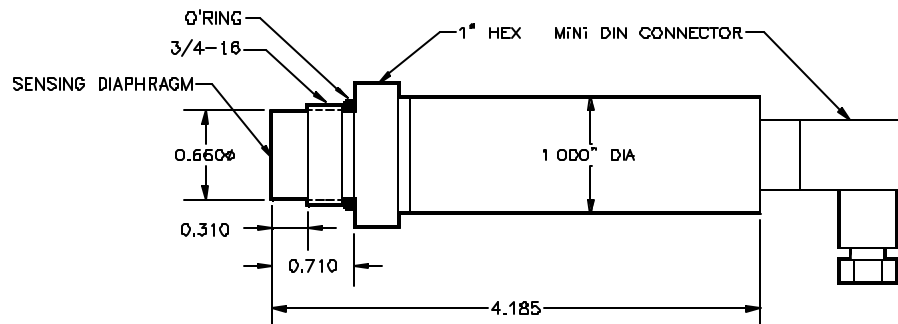
Pressure Ranges	0-100 through 0-7,500 psi (Customer may specify any range/eng. unit FOC) (Absolute, vacuum, compound available options)
Proof Pressure	2X Full Scale*
Burst Pressure	5X Full Scale* (15k psi max)
Materials	
Wetted Parts*	15-5 SST*
Non-wetted Parts	316 SST plus electrical connector*
Pressure Port	3/4-16 UNF Flush with 'O'-Ring*
Electrical Connector	NEMA 4X cable exit (24" cable)*
Dimensions	per outline below
Weight	nominal 10 oz

### Environmental

Compensated Temp Range	0 to 170 °F
Operating Temp Range	-40 to 200 °F
Storage Temp Range	-40 to 250 °F

### \* Options Available

### Outline



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