

### TEL-TRU MANUFACTURING CO.

## P143 Explosion Proof Pressure Transmitter

### **Certified for Hazardous Locations**

#### Approved for hazardous locations

The P143 Pressure Transmitter is designed and approved for use in hazardous locations. The P143's entirely welded 316L SST construction is hermetically sealed making it ideal for the worst of pressure applications. CSA/CUS Explosion Proof certified for Class I Div 1 and Class I Div 2 Groups A, B, C, D.

### Manufactured for reliable service in aggressive environments

The P143 is manufactured for reliability in aggressive environments where other transmitters fail. Automated weld procedures, extreme environmental burn in, and the mounting of our electronics to withstand the most severe shock and vibration applications are all geared toward safety and reliability. Additional EMI/RFI filtering with surge protection add to the performance of the P143.

### Alternate materials for service in corrosive environments

For corrosive environments where 316L or 15-5 SST are not best suited, the P143 is available in Hasteloy C276, C22 or Inconel 718.

### NIST

Each P143 transmitter is shipped with a NIST traceable calibration certificate.

### Standard Features

Hermetically Sealed Package ±0.25% FSO Static Accuracy 0-100 psi through 0-20,000 psi

### Available Options

±0.1% FSO Static Accuracy ±0.5% FSO Thermal Error Band Hasteloy or Inconel alt. materials Low power

## *mV/V, Vdc, mAdc outputs available*



### SST, Hasteloy, or Inconel wetted parts





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# P143 Explosion Proof Pressure Transmitter

### 0-100 psi through 0-25,000 psi Low-Cost Explosion Proof Process Transmitter

### **Product Specifications**

Electrical			Mechanical —————————————	
Excitation			Pressure Ranges	0-100 psi through 0-25,000 psi
	P143C P143A & P143B	2-15 Vdc 8-38 Vdc*		fy any range/eng. unit FOC) ompound available options)
Output Zero Balar FSO Settir Resolution	P143C P143B P143A nce	1-2mV/V* 0-5 Vdc* 4-20 mAdc ±1% FSO ±1% FSO Infinite (±.001% FSO usable)	Proof Pressure Burst Pressure Materials Wetted Parts* Non-wetted Parts Pressure Port Electrical Connector Dimensions	2X Full Scale* 5X Full Scale* 316 & 15-5 SST* 316 SST plus electrical connector* 1⁄4"-NPT Female* NEMA 4X cable exit with 24" of cable* per outline below
Response Time P143C		< 1mS	Weight	nominal 15 oz
P143A & P143B		< 5 mS	Environmental	
Insulation Resistance Reverse Polarity Warm-up Power Supply Effect		1000 M Ω @ 50 Vdc Protected < 10 mS ±.002% FSO per V input	Compensated Temp Range Operating Temp Range Storage Temp Range	e 0 to 170 °F -40 to 200 °F -40 to 250 °F
(P143A & P143B) EMI/RFI		Internal Filtering (P143A & P143B)	Performance	
Short Circuit Protected		Up to 40 Vdc (P143A & P143B)	Static Accuracy (combined effects of	±0.25% FSO* (BFSL, RSS)* non-linearity, hysteresis & repeatability)

### Certifications

Red

P143A 4-20 mAdc 2 Wire

CSA/CUS Explosion Proof Class I Div 1 Groups A, B, C, D CSA/CUS Explosion Proof Class I Div 2 Groups A, B, C, D Master Contract Number: 236039 Certificate Number: 1815757

\* Options Available

Repeatability

Temperature Effects

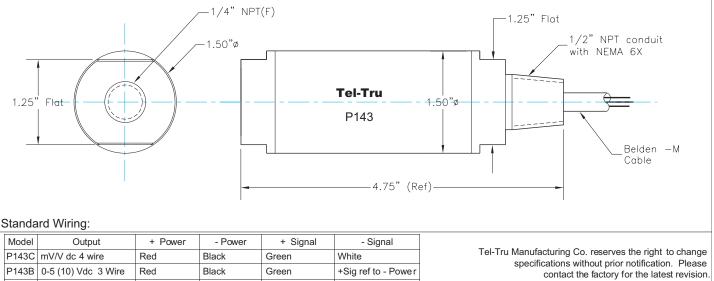
Long Term Stabily

±0.1% FSO

(combined effects of Zero & FSO with reference at 70° F)

±1.5% FSO over comp range\*

±0.25% FSO per year



Black

### **TEL-TRU PRESSURE TRANSMITTERS**

Threaded Series Models P141 and 143

### HOW TO ORDER EXAMPLE:

Precision Grade Rugged, 4-20 mA, 0.25% Accuracy, 0 to 100 psi, Gauge Pressure, 1/4" NPT Male, 2 ft. Wire Pigtail (NEMA 4X), Zero and span controls D9A G - 01 A402 - E4 Example: P141 A 3 MODEL **OPTIONS** P141 P143 P141 **G2** Mate Bendix 4 pin NA P143 Explosion Proof **B1** Mate Bendix 6 pin NA B110 Mate Bendix 6 pin w/ 10' wire NA **OUTPUT** -Zero and span controls **E4** NA Α 4-20 mA (2-wire) **E6** 100% shunt cal resistor B 0-5 Vdc (3-wire) A3 Inconel wetted parts С 1-2 mV/V (4-wire) **A**7 Hastelloy wetted parts Κ 0-10 Vdc output Improved temp. comp. to 0.5% D3 (req. 16-38 Vdc excitation) M2 \* Local LED Display (PTD-2) NA Hart Protocol Ν \* Must use electrical connector D200 ACCURACY -**ELECTRICAL CONNECTION** 3 0.25% N/A A402 2' wire pigtail (NEMA 4X) 6 0.10%, avail. ≤15k PSI A405 5' wire pigtail (NEMA 4X) N/A (includes improved Zero Balance to 0.5%) A410 10' wire pigtail (NEMA 4X) N/A **PRESSURE RANGE** -A420 20' wire pigtail (NEMA 4X) N/A P141 Vacuum P143 A430 \*\*30' wire pigtail (NEMA 4X) N/A V1K -30 to 0" Hg N/A **Compound** A602 1/2" NPT (M) conduit w/2' Z1A -30" Hg to 15 psi N/A wire pigtail Z2A -30" Hg to 30 psi N/A A605 1/2" NPT (M) conduit w/5' Z3A -30" Hg to 60 psi N/A wire pigtail A610 1/2" NPT (M) conduit w/10' **Pressure** A8A 0 to 3 psi N/A wire pigtail N/A B1A 0 to 5 psi A620 1/2" NPT (M) conduit w/20' B4A 0 to 10 psi N/A wire pigtail B7A 0 to 15 psi N/A A630 \*\*1/2" NPT (M) conduit w/30' C6A 0 to 30 psi N/A wire pigtail D6A 0 to 60 psi N/A D9A 0 to 100 psi B100 Bendix 4-pin connector N/A E3A 0 to 150 psi B200 Bendix 6-pin connector N/A E5A 0 to 200 psi D100 Mini DIN 43650C N/A E8A 0 to 300 psi connector w/mate F3A 0 to 500 psi D200 DIN 43650 connector w/mate N/A F6A 0 to 750 psi \*\* Request quote for more than 30' wire F8A 0 to 1,000 psi **PROCESS CONNECTION** H2A 0 to 1,500 psi 02 1/4" NPT (F) H5A 0 to 2,000 psi 1/4" NPT (M) 01 H9A 0 to 3,000 psi 07 7/16-20 UNF (M) J4A 0 to 4,000 psi Autoclave F-250-C 11 J8A 0 to 5,000 psi 1/2" - NPT (M) 03 K2A 0 to 7,500 psi 04 1/2" - NPT (F) K4A 0 to 10,000 psi 10 BSPP 1/4-19 (G1/4) M K7A 0 to 15,000 psi 12 BSPP 1/4-19 (G1/4) F K8A 0 to 20,000 psi N/A L1A 0 to 25,000 psi N/A MODE **PRICES INCLUDE:** G Gauge Pressure Ref. · Certificate of Calibration (directly traceable to NIST) Absolute Pressure Ref. Α NOTE: Available Upon Request--Additional Options (consult factory): V Vacuum Range See Range Chart Process Connections С Compound Range See Range Chart Electrical Connections and more than 50' wire S Sealed (std. on P143)

Pressure Ranges/Unit of Measure

List prices subject to change without notice (FCA Rochester, NY USA)