Model 230TPP

Precision Programmable Transmitter

Model 230TPP

Applications

- Industrial Environments
- Hydraulic Systems
- Pneumatics
- Food & Beverage Industry
- Water Treatment
- Pharmaceutical Industry
- Test Equipment

Features

- Ranges from 30" Hg to 0 thru 0 to 15,000 psi*
- 4:1 Turndown with optional programming tool
- Zero Point adjustment can made using permanent magnet
- 4-20mA and 0-10Vdc Standard Industrial Output Signals
- Fully welded "Dry Measuring Cell", requires no internal transmission fluid or seals
- 17-4 PH stainless steel wetted parts
- 304 stainless steel body
- Industry standard electrical connections including DIN 175301-803A, Shielded Cable and M12 (S7243) 4 pin
- Highly flexible modular design
- Protection Class IP65/NEMA 4X (Shielded Cable and M12 4 pin Connections – IP67/NEMA 6)

*Ranges up to 60,000 psi are available and require special "High-Pressure" fittings. Please consult factory

The **TRERICE 230TPP** "High-Precision" Digital Programmable Pressure Transmitter is the ideal choice for demanding industrial, test & measurement and process control applications. By use of the optional programming tool this transmitter provides 4 to 1 turn down and adjustable zero-point & span, allowing for multiple units of measure. The stainless steel/thin-film sensor element is directly welded to the process connection, so no internal transmission media or seals are required insuring a high degree of reliability and stability. Stainless steel wetted parts provide long-term durability even in the harshest environments.

In addition, the modular design of the 230TPP Pressure Transmitter allows for a wide variety of electrical connections, output signals and process connections to be specified to meet the requirements of any application.

Specifications

Model 230TPP • Precision Programmable Transmitter

Sensor Element Thin film resistors directly deposited on a Stainless Steel Diaphragm

Process Connection
1/4 or 1/2 NPT male (ASME B1.20.1)
G 1/4 B or G 1/2 B (EN 837-1)

Materials of Construction
Housing: 304 stainless steel
Wetted Parts: 17-4 PH stainless steel

	BFSL	Full Scale
Accuracy at 77° F (25°C)	0.35%	0.50%
Non-Linearity:	0.15%	0.30%
Hysteresis:	0.10%	0.10%
Repeatability:	0.10%	0.10%

Operating Temperature Ranges
Medium: -40/+257°F (-40/+125°C)
Ambient: -40/+185°F (-40/+85°C)

Temperature Error Band
Temperature compensated to within 1% between -4°F to 185°F (-20 to +85 °C)

Humidity
95% RH Non-condensing
100% RH with Shielded Cable Connection (E3)

Electronic Connection
90° Angle "Standard" Connector / DIN 175301-803 (A)
Shielded Cable (3 Feet Standard)
M12 (S723) 4 pin Circular Connector

Output Signal 4-20mA (2 wire) and 0-10Vdc (3 wire)

Overpressure Limit

Ranges ≤ 5000 psi at least:	1.5 x FS
burst pressure at least:	2.9 x FS
10,000-15,000 psi at least:	1.2 x FS
burst pressure at least:	1.5 x FS

Response Time (10-90%) < 10 ms

Power Supply

Output Signal:	Minimum	Maximum	Recommended
4-20mA:	10Vdc	32Vdc	24Vdc
0-10Vdc:	12Vdc	32Vdc	24Vdc

Load Resistance 4-20mA: $\leq \frac{V_{SUPPLY} - 10\ Vdc}{0.02\ A}$
0-10 Vdc: > 5 kOhm

Circuit Protection
Protected against reverse polarity and short circuits

CE Conformity RoHS2 Directive 2011/65/EU
EMC Directive: 2014/30/EU - PED Directive: 2014/68/EU
Applied standards: EN 61326-1:2013, EN 61326-2-3:2013

Ingress Protection Rating
90° Angle Connector: IP65 / NEMA 4X
Shielded Cable and M12 4 pin: IP67 / NEMA 6

Approximate Shipping Weight 0.4 lbs (0.20kg)

HOW TO ORDER

Sample Order Number: **230TPP 02 B A 0/600 E1 3**

Model	Process Connection	Accuracy	Units of Measure	Range Code	Electrical Connection	Cable Length (omit if none)	Output Signal
230TPP	**02** 1/4" NPT* **04** 1/2" NPT **42** G 1/4 B* **44** G 1/2 B	**C** 0.5% FS (0.35% BFSL)	**A** psi	See Standard Ranges	**E1** 90° Angle DIN 175301-803 (A) **E3** Shielded Cable (3 Ft Std) **E9** M12 (S723) 4 pin	Specify Length in Feet (ie., 3 Ft=003)	**3** 4-20mA (2-wire) **2** 0-10 Vdc (3-wire)

Multiple electrical connections, output signals and process connections are available, Please consult factory.

* Maximum pressure 14,500 psi

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TRERICE

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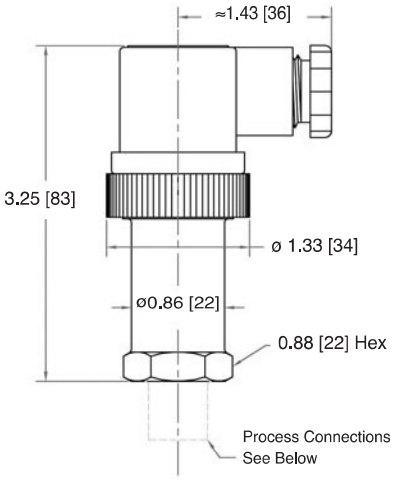
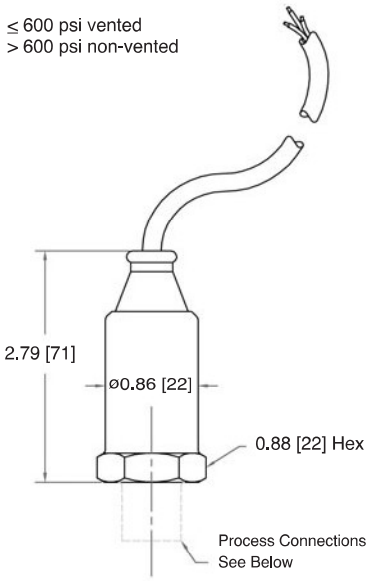
All dimensions are nominal.
Dimensions in [ ] are in millimeters.

E1 90° Angle "std" Connector
DIN 175301-803 **(A)**

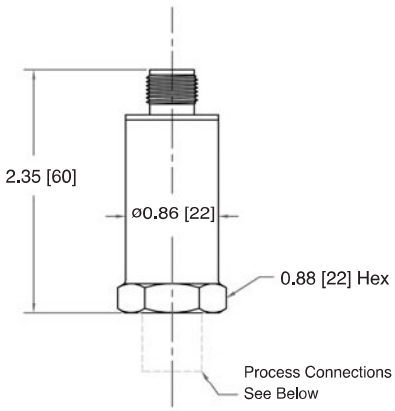


E3 Shielded Cable*
(3 Feet Standard)

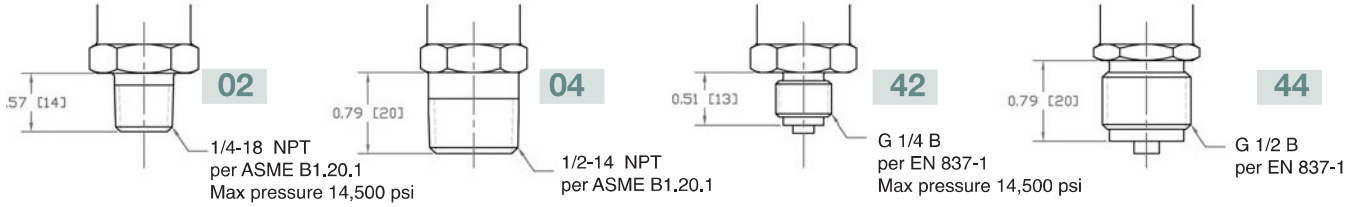
* ≤ 600 psi vented
> 600 psi non-vented



E9 M12 (S723) 4 pin



PROCESS CONNECTIONS



Standard Ranges

psi Ranges (A)			
Range Code	**Specific Range**	**Overpressure Limit**	**Burst Pressure**
30/0	30"Hg to 0	23 psi	44 psi
30/15	30"Hg to 15 psi	45 psi	87 psi
30/30	30"Hg to 30 psi	68 psi	131 psi
30/60	30"Hg to 60 psi	113 psi	218 psi
30/100	30"Hg to 100 psi	173 psi	334 psi
30/150	30"Hg to 150 psi	248 psi	479 psi
30/300	30"Hg to 300 psi	473 psi	914 psi
0/15	0 to 15 psi	23 psi	44 psi
0/30	0 to 30 psi	45 psi	87 psi
0/60	0 to 60 psi	90 psi	174 psi
0/100	0 to 100 psi	150 psi	290 psi
0/160	0 to 160 psi	240 psi	464 psi
0/200	0 to 200 psi	300 psi	580 psi
0/300	0 to 300 psi	450 psi	870 psi
0/400	0 to 400 psi	600 psi	1160 psi
0/600	0 to 600 psi	900 psi	1740 psi
0/1000	0 to 1000 psi	1500 psi	2900 psi
0/1500	0 to 1500 psi	2250 psi	4350 psi
0/2000	0 to 2000 psi	3000 psi	5800 psi
0/3000	0 to 3000 psi	4500 psi	8700 psi
0/5000	0 to 5000 psi	7500 psi	14,500 psi
0/10000	0 to 10,000 psi	12,000 psi	15,000 psi
0/15000	0 to 15,000 psi	18,000 psi	22,500 psi

Actual working pressures should never exceed the "Specific Range" or the maximum process connection rating. "Overpressure Limits" and "Burst Pressures" shown refer to the sensor or body of the transmitter and are for reference purposes only. For correct use and application See: ASTM F2070-00.