

Model 227THT

High Temperature Pressure Transmitter



Model 227THT

Applications

- Industrial Environments
- Hydraulic Systems
- Commercial / HVAC
- Process Automation
- Pump System Control
- Testing Technologies

Features

- Continuous Process temperatures up to 320°F/160°C (356°F/180°C allowed for 15 minutes)
- Ranges from 30" Hg to 0 thru 0 to 15,000 psi
- 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
- Highly flexible modular design
- Protection Class IP65/NEMA 4X (Shielded Cable Connection IP67/NEMA 6)

The **TRERICE 227THT** "High-Temperature" Pressure Transmitter is the ideal choice for pressure measurement of high temperature process media. The integrated cooling tower allows the 227THT to consistently provide pressure measurement of high temperature (up to 320°F/160°C) processes. The stainless steel/thin-film sensor element of the 227THT 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 227THT 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	227THT • High Temperature Transmitter		
Sensor Element	Thin film resistors directly deposited on a Stainless Steel Diaphragm		
Process Connection	1/4 or 1/2 NPT male		
Materials of Construction			
Housing:	304 stainless steel		
Wetted Parts:	17-4 PH stainless steel		
Accuracy at 77° F (25° C)	BFSL	Full Scale	
Non-Linearity:	0.35%	0.50%	
Hysteresis:	0.15%	0.30%	
Repeatability:	0.10%	0.10%	
Operating Temperature Ranges			
Medium:	-40/+320°F (-40/+160°C)		
Ambient:	-40/+221°F (-40/+105°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)			
90° Angle "Mini" Connector / DIN 175301-803 (C)			
Shielded Cable (3 Feet Standard)			
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%)	< 1 ms		
Power Supply			
Output Signal:	Minimum	Maximum	Recommended
4-20mA:	10Vdc	32Vdc	24Vdc
0-10Vdc:	12Vdc	32Vdc	24Vdc
Load Resistance	4-20mA:	≤ $\frac{V_{SUPPLY} - 10 \text{ Vdc}}{0.02 \text{ A}}$	
	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: IP67 / NEMA 6			
Approximate Shipping Weight	0.4 lbs (0.19kg)		

Sample Order Number: **227THT 02 C A 0/100 E1 3**

HOW TO ORDER

Model	Process Connection	Accuracy	Units of Measure	Range Code	Electrical Connection	Cable Length (omit if none)	Output Signal
227THT	02 1/4 NPT*	C 0.5% FS (0.35% BFSL)	A psi	See Standard Ranges	E1 DIN 175301-803 (A) "std"	Specify Length in Feet (ie., 3 Ft=003)	3 4-20mA (2-wire)
	E2 DIN 175301-803 (C) "mini"				2 0-10 Vdc (3-wire)		
	E3 Shielded Cable (3 Ft Std)						

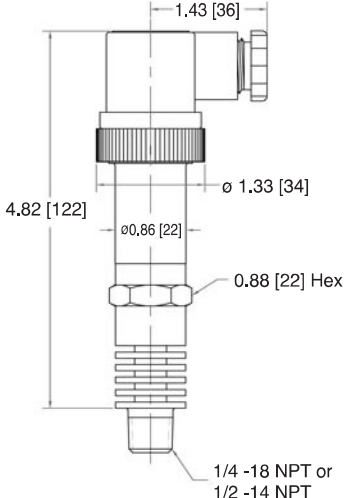
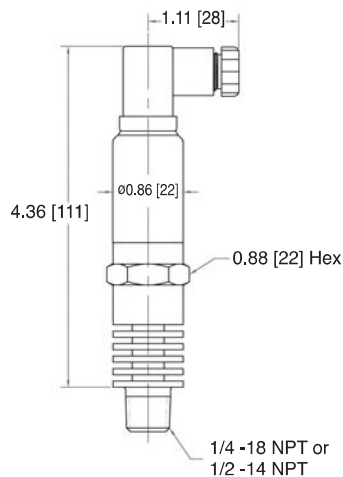
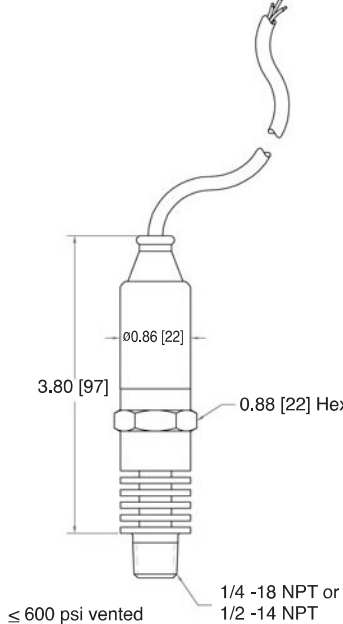
Multiple electrical connections, output signals and process connections are available. Please consult factory.

*Maximum pressure 14,500 psi

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

E1 90° Angle "std" Connector DIN 175301-803 (A)	E2 90° Angle "mini" Connector DIN 175301-803 (C)	E3 Shielded Cable* (3 Feet Standard)
		 <p>* ≤ 600 psi vented > 600 psi non-vented</p>

INDUSTRIAL TRANSMITTERS

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.