# Industrial Pressure Transmitter

## Model 220TST


### Applications

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

### Features

- Ranges from 30" Hg to 0 thru 0 to 20,000 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
- Industry standard electrical connections including DIN 175301-803A, C and Shielded Cable
- Highly flexible modular design
- Protection Class IP65/NEMA 4X (Shielded Cable Connection IP67/NEMA 6)

### DESCRIPTION

The **TRERICE 220TST** Pressure Transmitter is the ideal choice for demanding industrial, test & measurement and process control applications. Thanks to the stainless steel/thin-film sensor element being directly welded to the process connection, the 220TST requires no internal transmission media or seals 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 **220TST** 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.

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## SPECIFICATIONS

| | |
|---|---|
| **Model** | **220TST** • Standard Transmitter |
| **Sensor Element** | Stainless steel membrane / poly-Si on $SiO_2$ thin film resistors |
| **Process Connection** | 1/4 NPT male |
| **Materials of Construction** | Housing: 304 stainless steel<br>Wetted Parts: 17-4 PH stainless steel |
| **Accuracy** | 0.5% Full Scale (Terminal Point Method) / 0.35% Full Scale (BFSL)<br>Includes: Non-Linearity, Hysteresis and Non-Repeatability. |
| **Operating Temperature Ranges** | Medium: -40/+257°F (-40/+125°C)<br>Ambient: -40/+221°F (-40/+105°C) |
| **Temperature Error Band** | Temperature compensated to within 1% between -4°F and 185°F (-20°C and 85°C). Best accuracy of ≤0.5% at 77°F (25°C). |
| **Humidity** | 95% RH Non-condensing<br>0-100% RH with Shielded Cable Connection (E3) |
| **Electrical Connection** | 90° Angle "Standard" Connector / DIN 175301-803 **(A)**<br>90° Angle "Mini" Connector / DIN 175301-803 **(C)**<br>Shielded Cable (3 Ft) |
| **Output Signal** | 4-20mA (2 wire) and 0-10Vdc (3 wire) |
| **Overpressure Limit** | Ranges ≤ 5000 psi — 1.5 x FS<br>Burst pressure — > 3 x FS<br>10,000-20,000 psi — 1.2 x FS<br>Burst pressure — > 1.5 x FS |
| **Response Time (10-90%)** | < 1 ms |
| **Power Supply** | Output Signal: — Minimum — Maximum — Recommended<br>4-20mA: — 10Vdc — 32Vdc — 24Vdc<br>0-10Vdc: — 12Vdc — 32Vdc — 24Vdc |
| **Load Resistance** | 4-20 mA: Vdc Supply-10Vdc /0.02A = Ohm resistance (maximum)<br>0-10 Vdc: ≥ 5 kOhm (minimum) |
| **Circuit protection** | Protected against reverse polarity and short circuits |
| **CE conformity** | EC Directive 89/336/EWG |
| **Ingress Protection Rating** | 90° Angle Connector: IP65 / NEMA 4X<br>Shielded Cable: IP67 / NEMA 6 |
| **Approx. Shipping Weight** | 0.2 lbs (0.09kg) |

## How To Order

Example: 220TST 02 C A 0/100 E1 3

| Model | Process Connection | Accuracy | Units of Measure | Range Code | Electrical Connection | Output Signal |
|---|---|---|---|---|---|---|
| 220TST | **02** 1/4 NPT | **C** 0.5% FS (0.35% BFSL) | **A** psi | See Standard Ranges | **E1** DIN 175301-803 (A) "std" | **3** 4-20mA (2-wire) |
| | | | | | **E2** DIN 175301-803 (C) "mini" | **2** 0-10 Vdc (3-wire) |
| | | | | | **E3** Shielded Cable (3 Feet) | |

*Other electrical connections, output signals and process connections available. Please consult factory.*



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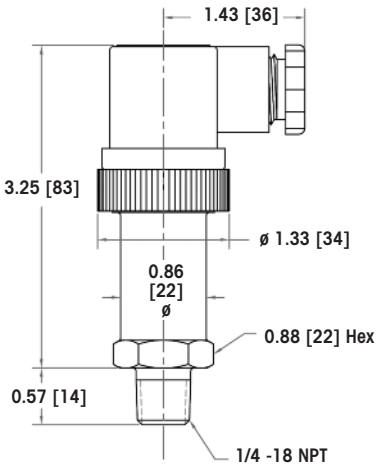
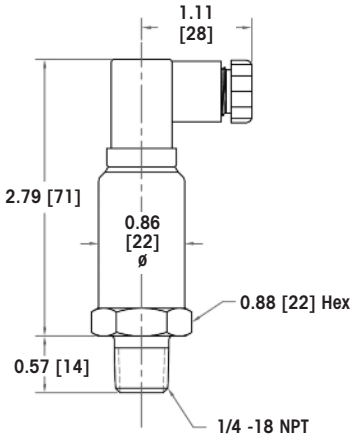
## Configurations & Dimensions

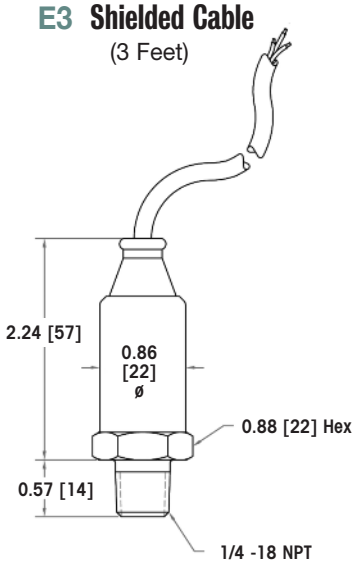
### E1 90° Angle "std" Connector
DIN 175301-803 **(A)**




### E2 90° Angle "mini" Connector
DIN 175301-803 **(C)**




### E3 Shielded Cable
(3 Feet)



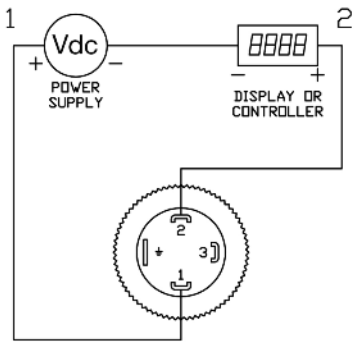

## Standard Ranges

| Range Code | Specific Range (psi) | Overpressure Limit | Burst Pressure |
|---|---|---|---|
| **30/0** | 30"Hg to 0 | 23 psi | 45 psi |
| **30/15** | 30"Hg to 15 psi | 45 psi | 90 psi |
| **30/30** | 30"Hg to 30 psi | 68 psi | 135 psi |
| **30/60** | 30"Hg to 60 psi | 113 psi | 225 psi |
| **30/100** | 30"Hg to 100 psi | 173 psi | 345 psi |
| **30/150** | 30"Hg to 150 psi | 248 psi | 495 psi |
| **30/300** | 30"Hg to 300 psi | 473 psi | 945 psi |
| **0/15** | 0 to 15 psi | 23 psi | 45 psi |
| **0/30** | 0 to 30 psi | 45 psi | 90 psi |
| **0/60** | 0 to 60 psi | 90 psi | 180 psi |
| **0/100** | 0 to 100 psi | 150 psi | 300 psi |
| **0/160** | 0 to 160 psi | 240 psi | 480 psi |
| **0/200** | 0 to 200 psi | 300 psi | 600 psi |
| **0/300** | 0 to 300 psi | 450 psi | 900 psi |
| **0/400** | 0 to 400 psi | 600 psi | 1200 psi |
| **0/600** | 0 to 600 psi | 900 psi | 1800 psi |
| **0/1000** | 0 to 1000 psi | 1500 psi | 3000 psi |
| **0/1500** | 0 to 1500 psi | 2250 psi | 4500 psi |
| **0/2000** | 0 to 2000 psi | 3000 psi | 6000 psi |
| **0/3000** | 0 to 3000 psi | 4500 psi | 9000 psi |
| **0/5000** | 0 to 5000 psi | 7500 psi | 15000 psi |
| **0/10000** | 0 to 10000 psi | 12000 psi | 15000 psi |
| **0/15000** | 0 to 15000 psi | 18000 psi | 22500 psi |
| **0/20000** | 0 to 20000 psi | 24000 psi | 30000 psi |

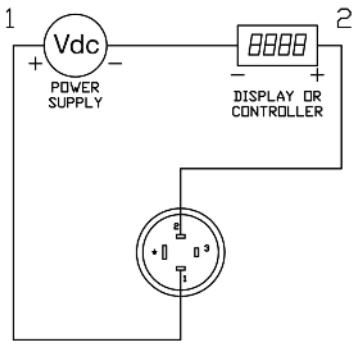
## Electrical Connections Wiring Diagram

### 2- Wire Circuits (4 20mA)

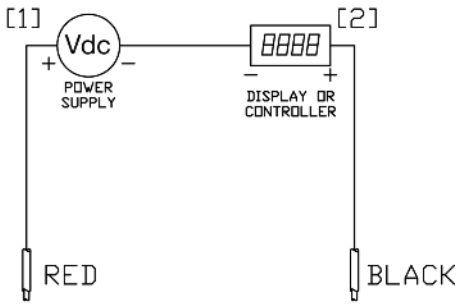
#### DIN 175301-803 (A)



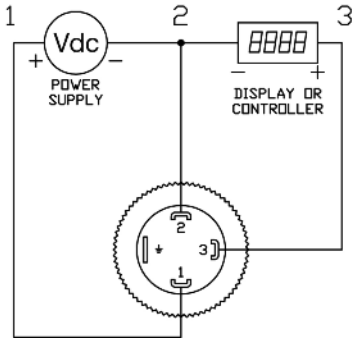

#### DIN 175301-803 (C)

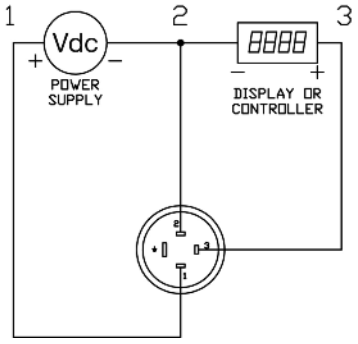


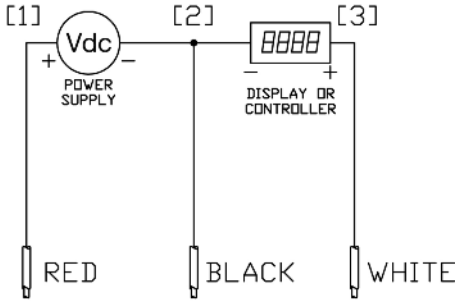

#### Shielded Cable




### 3- Wire Circuits (0-10Vdc)




## H.O TRERICE Company

From its start in 1923 in Detroit, the H.O. Trerice Company has remained true to the commitment of its founder - QUALITY in both PRODUCT and SERVICE. This commitment has solidly established Trerice as a worldwide leader in the manufacture of specialized engineered products for industrial temperature and pressure measurement and control.

When your requirements demand quality instrumentation and controls, the broad line of Trerice products are ready for your application. Contact us today for detailed information on your particular areas of interest.

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