Model 261TSG

Submersible Level Transmitter with Sensor-Guard



Applications

- Lift Stations
- Storage Tanks
- Waste Water Systems
- Process Sludge
- Rivers and Lakes
- Wet Wells

Model 261TSG

Features

- Ranges from 0-40 in. H₂0 thru 0 to 300 psi
- Diaphragm has large 4.5 in² Sensing Area for increased sensitivity
- 4-20mA and 0-10Vdc Standard Industrial Output Signals
- Zero Point adjustment can be made using permanent magnet
- 4:1 Turndown with optional programming tool
- Barrier plate helps protect diaphragm providing years of clog-free operation
- PUR-cable has integral capillary tube for relative pressure balancing (includes GORE-TEX® filter)
- 316L Stainless steel wetted parts

The **TRERICE 261TSG** "Submersible Transmitter with Sensor Guard" provides accurate measurement of sludge levels, pump lift stations and other viscous applications where clogging of the sensor is a common problem. The flush diaphragm has 4.5 in² of surface area providing increased sensitivity, while the 316L barrier plate and cage assembly help eliminate the buildup of debris, grease and bio-solids.

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 membrane is completely vacuum-sealed, extremely burst resistant and is applicable for use with a variety of process mediums. Stainless steel wetted parts provide long-term durability even in the harshest environments.

Specifications

Model 261TSG • Submersible Level Transmitter

Sensor Element Capsule Type - Thin film resistors on a Silicon Membrane, Oil-Filled, Stainless Steel Diaphragm

Process Connection Direct Submersion

with Sensor-Guard

Materials of Construction

Wetted Parts: 316L stainless steel, Polyurethane (PUR) Cable

Pressure Transmission Liquid Silicone Oil

| | 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: +14/+158°F (-10/+70°C) Ambient: +14/+158°F (-10/+70°C)

Temperature Error Band

Temperature compensated to within 1% between 14% to 15% (10 to 170°C)

14°F to 158°F (-10 to +70°C)

Humidity Fully Submersible

Electronic Connection

PUR (Polyurethane) Cable FEP (Flourinated-Ethylene-Propylene) Cable

Output Signal

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

Overpressure Limit

Ranges \leq 3 psi at least: 2.5 x FS burst pressure at least: 6 x FS 5-300 psi at least: 1.5 x FS burst pressure at least: 2.9 x FS

Response Time (10-90%) < 4 ms

Power Supply

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

Load Resistance 4-20mA: ≤ V_{SUPPLY} - 10 Vdc 0.02 A

0-10 Vdc: > 5 k0hm

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

Sample Order Number: 261TSG C U 0/300 E4 100 3

Ingress Protection Rating IP68 / NEMA 6P

Approximate Shipping Weight 4.0lbs (1.80kg)

Cable only: .02 lbs (0.009kg) per foot

HOW TO ORDER

| Model | Accuracy | Units of Measure | Range Code | Electrical Connection | Cable Length | Output Signal |
|--------|-------------------------------|--|---------------------------|------------------------------|---|--|
| 261TSG | c 0.5% FS (0.35% BFSL) | U in H ₂ O A psi | See Standard Ranges | E4 PUR Cable E6 FEP Cable | Specify Length in Feet (ie., 600 ft. max) | 3 4-20mA (2-wire) 2 0-10 Vdc (3-wire) |

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



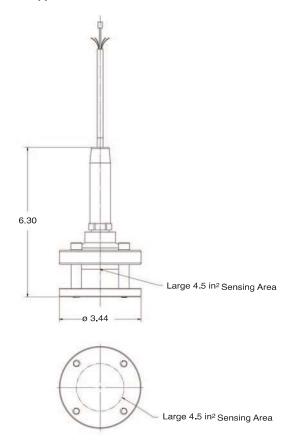
Model 261TSG

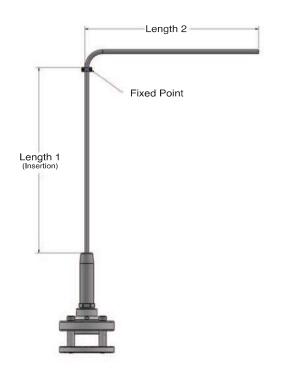
Submersible Level Transmitter

with Sensor-Guard

All dimensions are nominal.

Dimensions in [] are in millimeters.





Maximum Cable Lengths

| Code | Cable Material | Max. Cable (length 1) | Max. Cable (length 2) |
|------------|--------------------------------------|-----------------------|-----------------------|
| E4 | PUR (Polyurethane) | 65 feet (20 m) | 535 feet (165 m) |
| E 6 | FEP (Flourinated-Ethylene-Propylene) | 100 feet (30 m) | 500 feet (150 m) |

Standard Ranges

| in. H₂O Ranges (U) | | | |
|--------------------|-------------------------------|--------------------------|---------------------------|
| Range Code | Specific Range | Overpressure Limit | Burst Pressure |
| 0/40 | 0 to 40 in. H ₂ O | 100 in. H ₂ O | 240 in. H ₂ O |
| 0/60 | 0 to 60 in. H ₂ O | 150 in. H₂O | 360 in. H ₂ O |
| 0/100 | 0 to 100 in. H ₂ O | 250 in. H ₂ O | 600 in. H ₂ O |
| 0/160 | 0 to 160 in. H ₂ O | 400 in. H ₂ O | 960 in. H ₂ O |
| 0/200 | 0 to 200 in. H ₂ O | 500 in. H ₂ O | 1200 in. H ₂ O |
| 0/300 | 0 to 300 in. H ₂ O | 750 in. H ₂ O | 1800 in. H₂O |

| psi Ranges (A) | | | |
|----------------|-------------------|-----------------------|-------------------|
| Range Code | Specific Range | Overpressure Limit | Burst Pressure |
| 0/3 | 0 to 3 psi | 8 psi | 18 psi |
| 0/5 | 0 to 5 psi | 7 psi | 14 psi |
| 010 | 0 to 10 psi | 15 psi | 29 psi |
| 0/15 | 0 to 15 psi | 22 psi | 43 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 |

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.

