

SEASTREAM[™]

SST3010 T Temperature Transmitter for Ultra Deepwater Applications

Solartron ISA - High Performance Instruments for the Life of Your Reservoir

Engineering Excellence for Long-Term Performance

Operating subsea to ultra deepwater depths of 16,400 ft (5000 m) and high process pressures up to 10,000 psi (690 bar), the SST3010 T temperature transmitter has been developed to monitor well fluids in these most harsh environments.

Solartron ISA's SST family sets the global performance standard for subsea measurement instrumentation in the oil and gas industry. Used by leading exploration companies, SST products have an unsurpassed service history in the field, even in the most demanding and hostile installation environments.

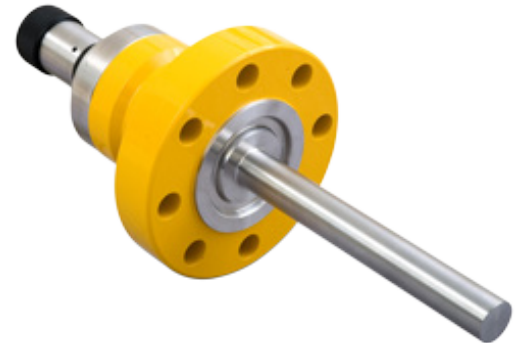
Highly Stable, Accurate Measurement

Solartron ISA has over 30 years of temperature measurement experience and can offer specialist design and measurement solutions to meet with customer requirements.

The SST3010 T is equipped with a 4-wire PT100 to IEC751 Class A RTD situated in an integral thermowell and terminating inside the main housing. The thermowell is positioned directly in the process stream which is the accepted industry standard for optimum accuracy and response time.

Robust Construction

Small and light, yet built for long-term reliability in the hostile ultra deepwater environment, the SST3010 T housing is fully welded duplex stainless steel. A dual compartment design with a glass-to-metal seal provides secondary containment and facilitates the termination of an oil-filled harness. The integral thermowell is designed in accordance with Wake Frequency Calculations to ASM PTC 19.3 (2016).



Key Specifications

- ✓ Depth 16,400ft (5000m)
- ✓ Pressure 10,000psi (690 bar)
- ✓ Accurate to $\pm 0.3\%$ of span
- ✓ Stability $\pm 0.1\%$ per 12 months
- ✓ Optional Redundancy

Features

- ✓ 4-20mA
- ✓ Hart
- ✓ CANOpen SIIS L.2
- ✓ Modbus (RS485)

Qualifications

- ✓ API 6A / ISO 10423
- ✓ ASME IX
- ✓ ISO 13628-6
- ✓ IEC 61000-4
- ✓ IEC 61000-6
- ✓ API 17F

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Standard Specifications

PERFORMANCE SPECIFICATIONS

Transmitter Output

- 4-20 mA, Hart, Modbus, CANOpen SIIS L.2

Accuracy

- Reference accuracy of calibrated span (including the effects of zero-based linearity, hysteresis, and repeatability): $\pm 0.3\%$ of calibrated span

Supply Voltage Effect

- 0.006% of span / °C
- 0.001% of span / volt

Stability

- $\pm 0.1\%$ of URL per 12 months

Calibration

- UKAS accreditation optional

FUNCTIONAL SPECIFICATIONS

Ambient Temperature Limits

- -22 to 176°F / -30 to 80°C

Process Temperature Limits

- -40 to 302°F / -40 to 150°C

Working Pressure Limits

- Maximum working pressure limit 10,000 psi / 690 bar
- Maximum test pressure limit 15,000 psi / 1035 bar

Supply Voltage

- 10 to 40 VDC for analog operation
- 16.4 to 32 VDC for digital communications

Load

- 0 to 1335Ω for analog operation
- 250 to 600Ω for HART
- 120Ω for Modbus
- 1500Ω for CANopen

PHYSICAL SPECIFICATIONS

Dimensions

- Unit height (excluding electrical connection and probe): 4-3/4" / 120 mm
- Unit width 7-7/8" / 200 mm
- Probe length: as required
- Weight 37.5 lbs (17 kg) excluding electrical connector and cable
- Physical Support: direct mounted

Wetted Parts Materials

- Probe: UNS S31803 duplex

Non-Wetted Parts Materials

- Transmitter housing: UNS S31803 Duplex
- Glass to metal seal: Glass / 316 stainless steel
- Electrical connector interface: 316 stainless steel
- Cable connection options: Most common subsea electrical connectors

INSTALLATION



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