



SST3010 GP Gauge Pressure 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 GP is one of the most accurate and stable deepwater gauge pressure transmitters on the market. Its unique silicon crystal sensor technology provides high accuracy and long-term measurement stability.

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's 40 years of flow measurement experience have made us the experts in pressure measurement technology. For subsea applications, only the best pressure measurement technologies should be employed. This is especially critical if the pressure measurement will be used for flow calculations, as long-term inaccuracy can lead to significant fiscal errors.

The SST3010 GP is equipped with the Yokogawa innovative silicon crystal technology which has proven more accurate and more stable than competitive technologies. In fact, the technology is four times more sensitive than traditional piezo-resistive sensor technology used in competitive products.

Robust Construction

Small and light, yet built for long-term use in the hostile deep subsea environment, the SST3010 GP housing is fully welded duplex stainless steel. A large bore, self-draining port minimizes hydrate formation and a dual compartment design with glass-to-metal seal provides secondary containment and facilitates oil-filled harness termination.

Comprehensive Qualification Testing

Every one of Solartron's subsea devices is fully tested to rigorous standards appropriate to the harsh subsea environment including: hyperbaric, electrical, EMC, shock/vibration, temperature soak and cycling. The Solartron name is your assurance that the instrument meets or exceeds the highest international standards.



Key Specifications

- ✓ Depth 16,400ft (5000m)
- ✓ Pressure 10,000psi (690 bar)
- ✓ Accurate to $\pm 0.065\%$ of span
- ✓ Stability $\pm 0.1\%$ per 5 years
- ✓ Optional Close couple seals

Features

- ✓ 4-20mA
- ✓ Hart
- ✓ CANopen
- ✓ (Fault Tolerant - SILS Level 2)
- ✓ CANopen (Hi-speed)
- ✓ Modbus (RS485)

Qualifications

- ✓ API 6A / ISO 10423
- ✓ ASME IX
- ✓ ISO 13628-6
- ✓ IEC 61000-4
- ✓ ISO 9001



SST3010 GP Differential Pressure Transmitter For Ultra-Deepwater Applications

Specifications

Performance Specifications

Transmitter Output

4-20 mA, HART, Modbus, CANopen (High-Speed),
CANopen (Fault Tolerant - SIFS Level 2)

Accuracy

Reference accuracy of calibrated span (including
the effects of zero-based linearity, hysteresis, and
repeatability): $\pm 0.2\%$ of span

Temperature

Total ambient temperature effects per 50°F (28°C)
change: $\pm [0.15\% \text{ span} + 0.15\% \text{ URL}]$

Stability

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

Power Supply Effects

$\pm 0.005\%$ per volt (from 21.6 to 32 VDC, 350 Ω)

Calibration

UKAS accreditation optional
Operating temperature calibration optional

Functional Specifications

Ambient Temperature Limits

-22 to 176°F (-30 to +80°C)

Process Temperature Limits

-40 to 248°F (-40 to 120°C)

Working Pressure Limits (silicone oil)

Maximum working pressure limit 10,000 psi (3690 bar)

Maximum test pressure limit 15,000 psi (1035 bar)

INSTALLATION

Supply voltage

10.5 to 42 VDC for analog operation

16.4 to 32 VDC for digital communications

Load

0 to 1335 Ω for analog operation

250 to 600 Ω for HART

120 Ω for Modbus

1500 for CANopen

SPAN AND RANGE LIMITS

Measurement span and range

	Bar	PSI
Span	50 to 690	720 to 10,000

PHYSICAL SPECIFICATIONS

Dimensions

Unit height (excluding electrical connection):

9-1/2" / 240 mm

Unit width: 7-7/8" / 200 mm

Weight: 47.3 lbs (21.5 Kg) excluding electrical connector and cable

Process connections: 2-1/16" 10,000 PSI AP16A flange

Physical support: Direct mounted

Wetted parts materials

Diaphragm: Hastelloy C-276

Other process wetted parts: UNS S31803 duplex / Hastelloy C276

Non-wetted parts materials

Transmitter housing: UNS S31803 duplex

Transmitter capsule body: Hastelloy C276

Glass to metal seal: Glass / 316 stainless steel

Electrical connector interface: 316 stainless steel

Cable connection options: Most common subsea
electrical connectors



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