

ANALOG 4 - 20 mA DEPTH/LEVEL TRANSMITTER ATM.1ST/N



Features

- Total Error Band: typical $\leq 0.3\%$ FS
- Fully submersible, 1" diameter
- Ranges 20" WC to 360 psi
- Titanium or 316L SS construction
- Polyurethane cable - PE/FEP option
- Many installation options available

Product overview and applications

The ATM.1ST/N is part of a comprehensive range of pressure transmitters specifically designed for the long term monitoring of ground water and wastewater. Features such as Kevlar strengthened cable, titanium, ballast weights, data loggers, etc. broaden the installation opportunities. The modular construction provides manufacturing flexibility and offers fast delivery for all pressure ranges and standard options.

Examples of applications include:

- Wells, lakes and reservoirs
- Bore holes
- Surface water, irrigation canals and rivers
- Wastewater and sewage treatment plants
- Tank level measurement

Specification

Pressure Measurement

Pressure ranges

Any range from 20" WC to 360 psi FS available, in any engineering units such as psi, Pa, inches H₂O, bar. Absolute or gauge types available

Proof pressure

FS up to 15 psi: 45 psi
 FS > 15 psi up to 360 psi: 3 x FS (max. 360 psi)

Consult factory for higher proof pressure

Operating and compensated temperature range

25 to 125°F (standard)
 25 to 175°F (option)

Accuracy

±0.25% FS (standard)
 ±0.10% FS (option)

Combined linearity, hysteresis, repeatability, zero and span set

Total Error Band (TEB)

typ. ±0.8% total for 25 to 125°F, ≤ 7.25 psi
 typ. ±1.3% total for 25 to 175°F, ≤ 7.25 psi

typ. ±0.3% total for 25 to 125°F, > 7.25 psi

typ. ±0.75% total for 25 to 175°F, > 7.25 psi
 TEB includes linearity, hysteresis, repeatability, zero and span settings and temperature effects at max. signal span (16mA)

Response time:

<1ms (10 to 90%FS)

Long term stability

Typical <0.05% FS/yr for pressure ranges > 30 psi FS
 Prorated for ranges below 30 psi FS
 Under standard conditions

Specification continued

Electrical

Supply voltage

9 - 33 VDC
 Influence of supply voltage: typ. < 0.05% FS

Output signal

4 - 20 mA, 2-wire loop powered

Max. load resistance

RL = (Vsupply - 9V)/0.02A
 Influence of load resistance < 0.05% FS

Insulation resistance

> 50 megohms @ 500 VDC (@ 68°F)

Intrinsic Safety Certification

For operation in hazardous environments please refer to ATM/N/IS

Construction

Pressure media compatibility

Stainless steel 316L, Viton seals
 Other seal materials available
 Titanium version available

Pressure connection

Closed (Fig.1) POM nose cone (supplied as standard)
 Open (Fig.2) POM nose cone with ø0.59" opening available as option
 Other connections available

Electrical connection

Polyurethane, polyethylene or FEP cable
 Fixed or field replaceable version (Fig.3) available

Specification continued

Weight

5 oz approximate (not including cable)

Vibration

10 g, 4 to 2000 Hz

Mechanical shock

100 g / 6 ms

Ordering information

Please specify the following:

- 1) Model number - ATM.1ST/N
- 2) Electrical connection
 - 15 - Polyurethane cable
 - 13 - Polyethylene cable
 - 21 - Teflon cable
- 3) Pressure range, including eng. units, type
- 4) Accuracy
- 5) Cable length
- 6) Output signal
- 7) Any special features

Example ordering format:

ATM.1ST/N - 15 - 150 psig - 0.1% - 45 feet cable - 4 to 20mA

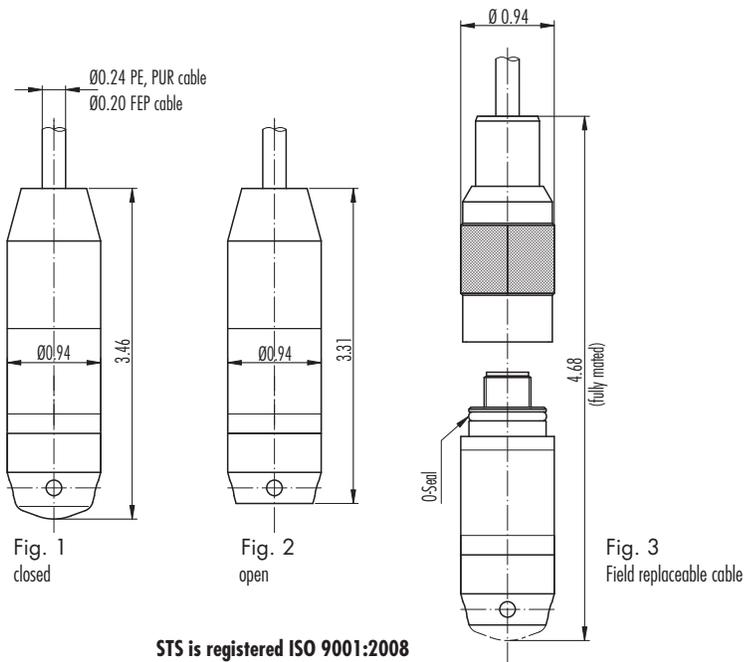
Options

STS offers a wide range of options for these and other similar transmitters. Please consult the factory for any special requirements.

Examples include:

- Alternate electrical configurations i.e. 0 to 5 VDC, 0 to 10 VDC, 0 to 20 mA RS 485
- Lightning protection
- Rangeable versions
- Special oil filling for food application etc.
- Alternate construction i.e. titanium
- Alternate seals i.e. EPDM, Kalrez
- Wide range of pressure connectors
- Wide range of electrical connectors
- Datalogging

Dimensions (inches)



Specifications may change without notice.

STS is registered ISO 9001:2008

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