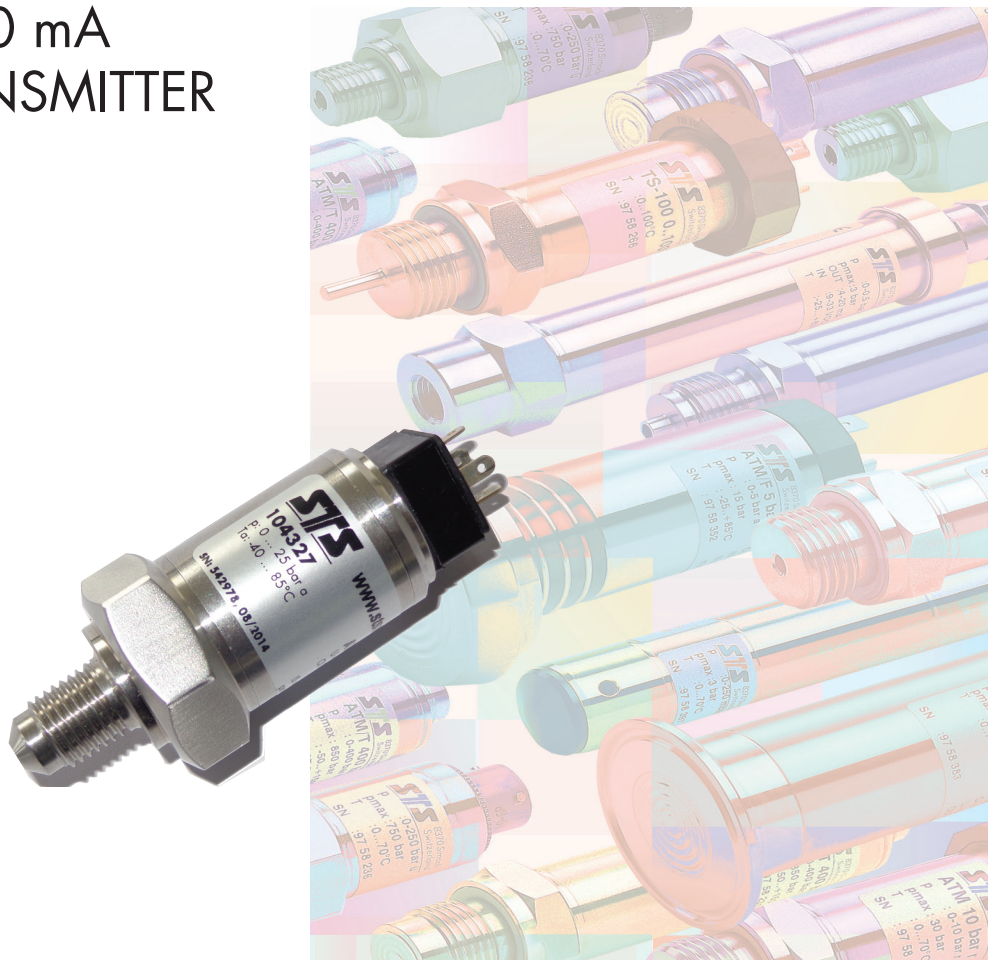


# PROCESS 4 - 20 mA PRESSURE TRANSMITTER ATM.ECO/IS



## Features

- Accuracy:  $\leq \pm 0.25\%$  FS  
*Includes linearity, hysteresis, repeatability AND zero and span settings*
- Operating temperature: -40 to 300°F
- Full scale ranges from 1 to 10,000 psi
- Gauge, absolute or sealed gauge
- 4 to 20 mA output, loop powered

## Product overview and applications

The ATM.ECO/IS is an electronically compensated pressure transmitter providing a 2-wire, 4-20mA analog output. It is designed to meet the requirements of the process industry with various intrinsically safe approvals. The transmitter offers an accuracy of  $\leq 0.25\%$ FS including linearity, hysteresis, repeatability, zero and span setting errors.

The transmitters utilize piezoresistive silicon sensor technology which STS has been refining for 25 years. The modular construction provides manufacturing flexibility and offers fast delivery for all pressure ranges and standard options.

Examples of applications include:

- Industrial process monitoring and control
- Machine and plant construction
- Food industry
- Chemical processing

**Specification**

**Measurement**

**Pressure ranges**

Any range from 1 to 10,000 psi FS available, in any engineering units such as psi, Pa, in H<sub>2</sub>O, bar.

Absolute from 0 - 1 to 0 - 360 psia FS

Gauge from 0 - 1 to 0 - 360 psig FS

Sealed from 0 - 150 to 0 - 10,000 psig FS

Consult factory for any other pressure ranges

**Proof pressure**

FS up to 15 psi: 45 psi

FS > 15 psi up to 4,000 psi: 3 x FS

FS > 4000 psi up to 10,000 psi: 12,000 psi

Consult factory for higher proof pressure

**Burst pressure**

FS up to 350 psi: > 3,000 psi

FS up to 10,000 psi: > 12,000 psi

Consult factory for higher burst pressure

**Operating temperature range**

-40 to 120°F (Fig. 1, standard)

-40 to 230°F (Fig. 1, standard)

-40 to 300°F (Fig. 2)

**Compensated temperature range**

32 to 160°F (standard)

-15 to 212°F (option)

**Storage temperature range**

-40 to 255°F

**Performance**

**Total Error Band (TEB)**

**typ. ±1%** total for 32 to 160°F, ≤ 7.25 psi

**typ. ±2%** total for -15 to 185°F, ≤ 7.25 psi

**typ. ±0.7%** total for 32 to 160°F, > 7.25 psi

**typ. ±1.0%** total for -15 to 185°F, > 7.25 psi

**Accuracy**

Combined linearity, hysteresis, repeatability, Zero and Span set:

≤ ±0.25% FS (standard)

Consult factory for better accuracies or refer to ATM.1ST/IS

**Specification continued**

**Long term stability**

<0.1% FS/yr for pressure ranges > 30 psi FS

Prorated for ranges below 30 psi FS

Under standard conditions

**Supply voltage**

9 - 28 VDC

Influence of supply voltage: typ. < 0.05% FS

**Max. load resistance**

RL = (Vsupply - 9V)/0.02A

Influence of load resistance < 0.05% FS

**Output signal**

4 - 20 mA, 2-wires loop powered

**Response time:**

<1ms (10 to 90%FS)

**Insulation resistance**

> 50 megohms @ 500 VDC (@ 68°F)

**Construction**

**Pressure media compatibility**

Stainless steel 316L, Viton seals

Other seal materials available

**Pressure connection**

1/4" NPT female

1/4" NPT male

7/16" - 20 UNF male

Other connections available

**Electrical connection**

DIN 43650 (Fig. 3)

6-pin bayonet per MIL-C-26482 (10-6) (Fig. 4)

Polyurethane cable (Fig. 5)

Other types available

**Intrinsically safe**

SEV 09 ATEX 0108 X

EEx 1G ia IIC T3 - T6

FM/FM-C, Class 1, Div. 1 approved

**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.ECO/IS

2) Electrical connection

01 - DIN 43650 (mating connector extra)

06 - 6-pin bayonet (mating connector extra)

15 - Polyurethane cable (blue)

3) Pressure range, including eng. units, type

4) Accuracy

5) Any special feature

Example ordering format:

ATM.ECO/IS - 01 - 300 psig - 0.25%

**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
- Lightning protection
- Intrinsic safety certification
- Cooling extension
- Explosion proof certification
- Pressure snubber
- Special oil filling for food application etc.
- Alternate construction i.e. titanium, hastelloy
- Alternate seals i.e. EPDM, Kalrez
- Wide range of pressure connectors
- Wide range of electrical connectors
- Datalogging

**Dimensions (inches)**

Version for medium temperature up to 255°F

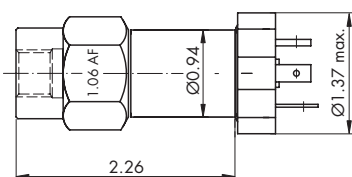


Fig. 1

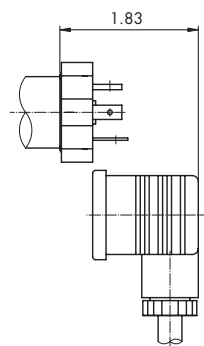


Fig. 3

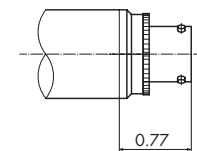


Fig. 4

Version for medium temperature up to 300°F

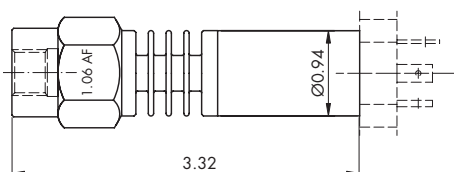


Fig. 2

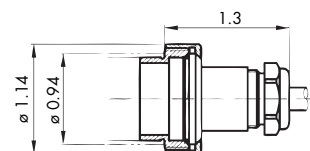


Fig. 5

Specifications may change without notice.

STS is registered ISO 9001:2008

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