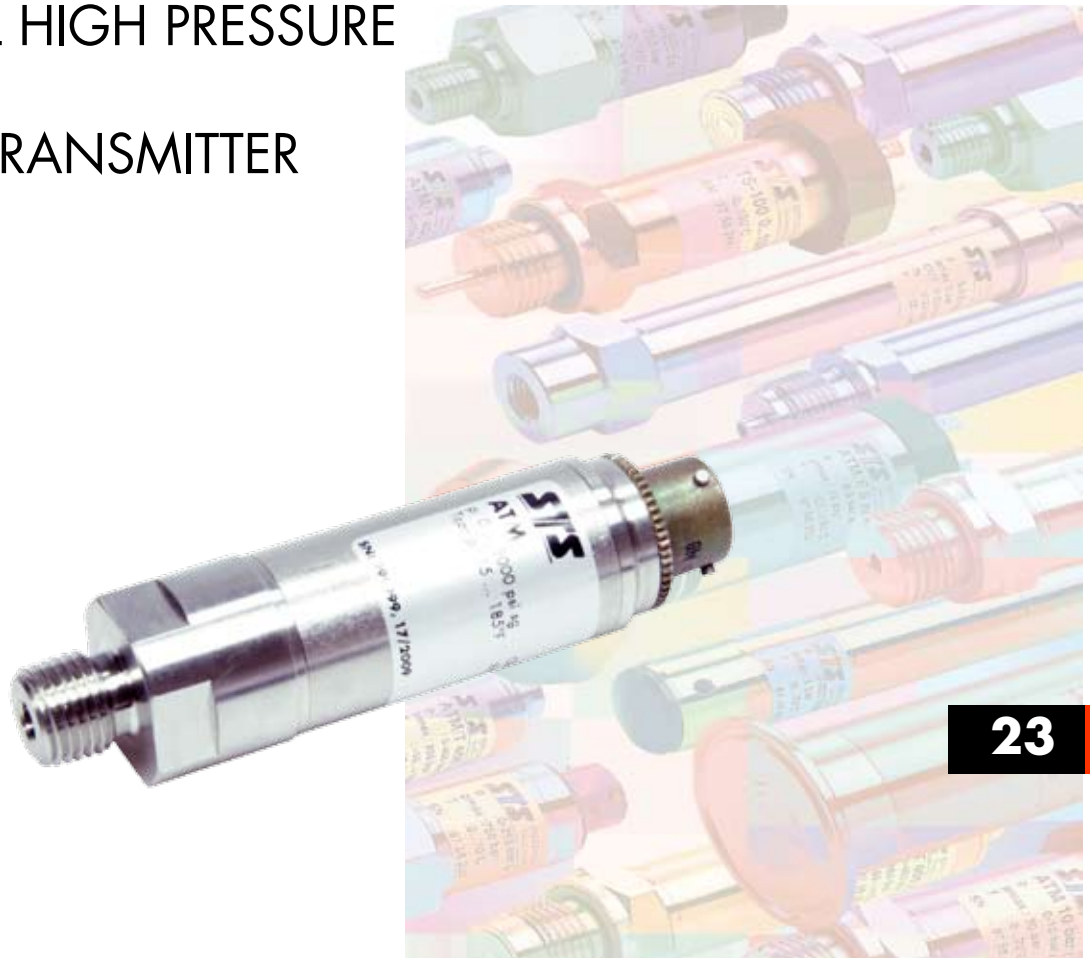


INDUSTRIAL HIGH PRESSURE 4 - 20 mA PRESSURE TRANSMITTER



23

Features

- Accuracy: $\leq \pm 0.1$ % FS
- Full scale ranges from 360 to 10,000 psi
- Absolute or sealed gauge
- Compensated temperature: -40 to 212°F
- Rugged construction, Fast delivery
- 316 Stainless Sensor - NACE Compatible
- Overall diameter less than one inch

Product overview and applications

The ATM series 23 is a precision pressure transmitter offering high performance and a rugged flexible design for a wide range of industrial applications. The transmitter is based on STS piezoresistive sensor technology with 20 years proven history. The modular construction provides manufacturing flexibility and offers fast delivery for all pressure ranges and standard options.

Examples of applications include:

- Machine installations
- Industrial process control
- Mobile hydraulics
- Test and calibration systems

High Pressure 4 - 20 mA Pressure Transmitter

Specification

Measurement

Pressure ranges

Any range from 360 to 10,000 psi FS available, in any engineering units such as psi, Pa, in H₂O, bar.

Absolute from 0 - 360 FS and higher
Sealed from 0 - 360 to 0 - 10,000 psig FS
Consult factory for other pressure ranges

Proof pressure

FS > 360 psi up to 4,000 psi: 3 x FS
FS up to 10,000 psi: 22,000 psi
Consult factory for higher proof pressure

Burst pressure

FS up to 10,000 psi: > 22,000 psi
Consult factory for higher burst pressure

Operating temperature range

-40 to 212°F (process media, Fig. 1)
-40 to 300°F (process media with cooling ext., Fig. 2)

Compensated temperature range

32 to 160°F (standard)
-15 to 185°F (option)
-40 to 212°F (option)

Temperature effects

±1.5% total for 32 to 160°F
±2% total for -15 to 185°F
±2.6% total for -40 to 212°F

Performance

Accuracy

Combined linearity, hysteresis, repeatability, including Zero and Span set
≤ ±0.1% FS
≤ ±0.25% FS available

Specification continued

Long term stability

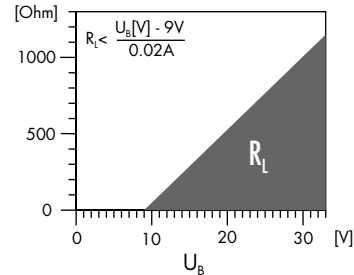
0.1% FS/yr for pressure ranges

Supply voltage

9 - 33 VDC
Influence of supply voltage < 0.1% FS

Load resistance

Influence of load resistance < 0.1% FS



Output signal

4 - 20 mA (2-wire)
4 - 20 mA with surge (lighting) protection (option)

Insulation resistance

> 50 megohms @ 500 VDC (@ 68°F)

Response time

< 1ms, 10 to 90% FS

Construction

Pressure media compatibility

Stainless steel 316L

Pressure connection

1/4" NPT 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)
Demountable versions and other types available

Specification continued

Weight

5 oz approximate (not including cable)

Vibration

10 g, 10 to 2000 Hz

Mechanical shock

100 g / 6 ms

Ordering information

Please specify the following:

- 1) Model number - ATM XX
- 2) Electrical connection
01 - DIN 43650 (mating connector extra)
06 - 6 pin bayonet (mating connector extra)
15 - Polyurethane cable
- 3) Pressure range, including eng. units, type
- 4) Accuracy
- 5) Any special features

Example ordering format:
ATM 23. 06 - 5000 psig - 0.1%

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, CANopen
- 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 212°F

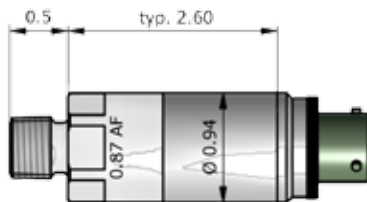


Fig. 1

Version for medium temperature up to 300°F

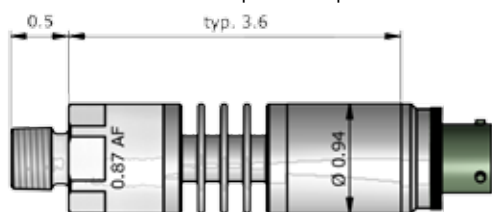


Fig. 2

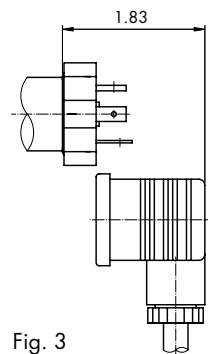


Fig. 3

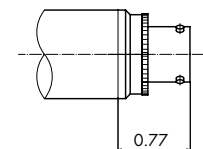


Fig. 4

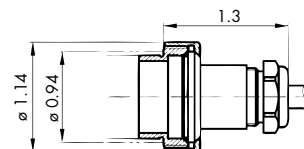


Fig. 5

Specifications may change without notice.

STS is registered ISO 9001-2000

10.00.0293A - 905



Process Measurement & Controls, Inc.
STS Sensors
11 Old Sugar Hollow Road
Danbury, CT 06810 U.S.A

Tel: 203-792-8686
Fax: 203-743-2051
e-mail: salesUS@sts-sensors.com
Internet: www.sts-sensors.com

Represented by: