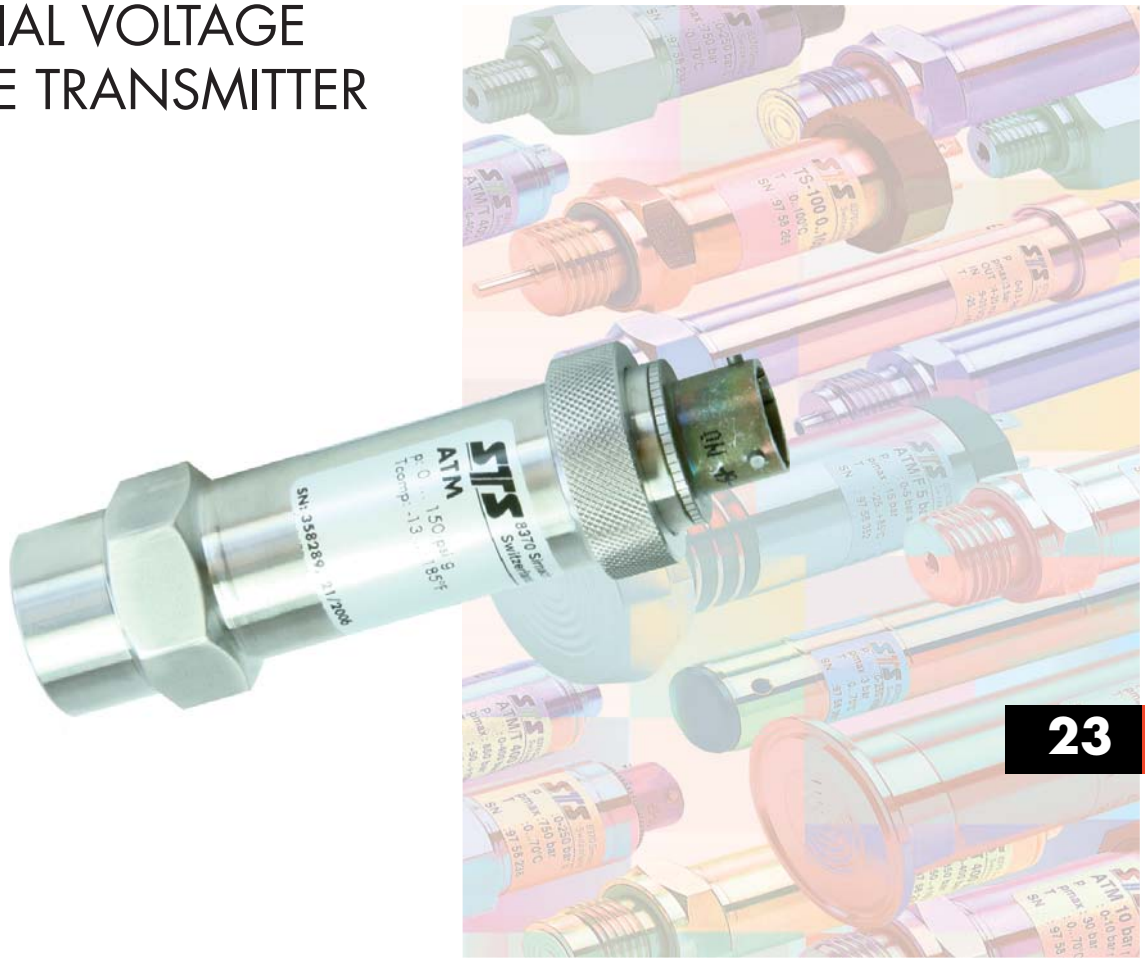


INDUSTRIAL VOLTAGE PRESSURE TRANSMITTER ATM



23

Features

- Accuracy: $\leq \pm 0.1$ % FS
- Full scale ranges from 1 to 15,000 psi
- Gauge, absolute or sealed gauge
- High overload: 3 x full scale
- Operating temperature: -40 to 185°F
- Rugged construction, Fast delivery

Product overview and applications

The ATM series 23 with high level voltage output is specifically designed for industrial test applications such as automotive, marine and aerospace. Exceptional reliability is achieved with the high overpressure rating, and the combination of high accuracy and good long term stability offer the user reduced recalibration requirements resulting in a low "cost of ownership".

Modular construction and the 20 year proven history of STS piezoresistive sensor technology provide manufacturing flexibility and offer fast delivery for all pressure ranges.

Examples of applications include:

- Machine installations
- Automotive test
- Hydraulic and pneumatic control systems
- Test and calibration system
- Engine test cells

Specification

Measurement

Pressure ranges

Any range from 1 to 15,000 psi FS available, in any engineering units such as psi, Pa, in H₂O, bar.

Absolute from 0 - 2 to 0 - 360 psia FS
 Gauge from 0 - 1 to 0 - 360 psig FS
 Sealed from 0 - 150 to 0 - 15,000 psig FS
 Compound ranges from -15 to 360 psig FS*
 Neg. ranges from 0 to -1 to 0 to -15 psig FS*
 *Consult factory

Proof pressure

FS up to 15 psi: 45 psi
 FS > 15 psi up to 4000 psi: 3 x FS
 FS > 4000 psi up to 9000 psi: 12,000 psi
 FS > 9000: 22,000 psi
 Consult factory for higher proof pressure

Burst pressure

FS up to 350 psi: > 3000 psi
 FS up to 9000 psi: > 12,000 psi
 FS > 9000 psi: > 22,000 psi
 Consult factory for higher burst pressure

Operating temperature range

-25 to 185°F (ambient)
 -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 185°F (option)

Temperature effects

±1.5% total for 32 to 160°F, > 30 psi FS
 ±2% total for 32 to 160°F, 7 to 30 psi FS
 ±2% total for -10 to 185°F, > 30 psi FS
 ±2.5% total for -10 to 185°F, 7 to 30 psi FS

Performance

Accuracy

Combined linearity, hysteresis, repeatability, Zero and Span set
 ≤ ±0.1% FS (≥ 7 psi FS)
 ≤ ±0.25% FS (< 7 psi FS)

Specification continued

Long term stability

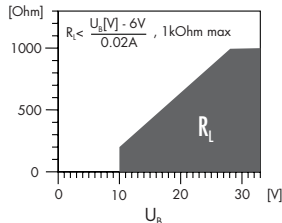
0.1% FS/yr for pressure ranges > 30 psi FS
 Prorated for ranges below 30 psi FS
 Under standard conditions

Supply voltage

15 - 30 VDC
 Influence of supply voltage < 0.1% FS

Load resistance

Influence of load resistance < 0.1% FS



Output signal

0 to 5 VDC (3-wire)
 0.5 to 4.5 VDC (3-wire)
 1 to 5 VDC (3-wire)
 0 to 10 VDC (3-wire)
 0 to 10 VDC with surge (lighting) protection (option), Others available consult factory

Insulation resistance

> 50 megohms @ 500 VDC (@ 68°F)

Response time

< 1ms/10 to 90% FS

Construction

Pressure media compatibility

Stainless steel 316L, Viton seals
 Other seal materials available
 Fully welded 316L version on request

Pressure connection

1/4" NPT female*
 Other connections available
 *Not recommended for pressure > 10,000 psi

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 23
- 2) Electrical connection
 01 - DIN 43650
 06 - 6 pin bayonet (mating connector extra)
 15 - Polyurethane cable
- 3) Pressure range, including eng. units, type
- 4) Output signal
 46 - 0 to 5 VDC
 98 - 0.5 to 4.5 VDC
 44 - 1 to 5 VDC
 47 - 0 to 10 VDC
- 5) Accuracy
- 6) Any special features

Example ordering format:

ATM 23 - 15 - 100 psig - 46 - 0.1% - 10 feet cable

Options

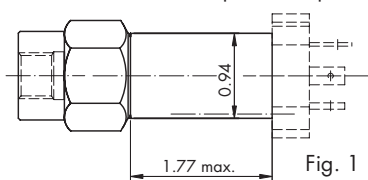
STS offers a wide range of options for these and other similar transmitters. Please consult the factory for any special requirements.

Examples include:

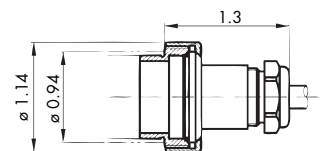
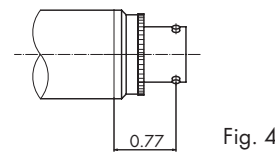
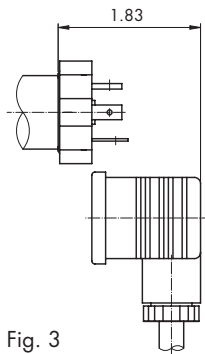
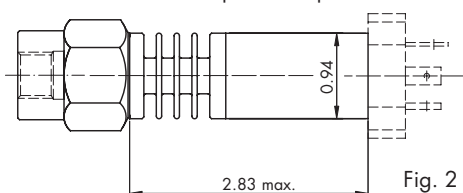
- Alternate electrical configurations i.e. 4 to 20 mA, 0 to 20 mA, RS485, CANopen
- Lightning protection
- Intrinsic safety certification (current output)
- Cooling extension
- Explosion proof certification
- Pressure snubber
- Special oil filling for food application etc.
- Alternate construction i.e 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



Version for medium temperature up to 300°F



Specifications may change without notice.

STS is registered ISO 9001-2000

10.00.0201C - 802



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: