

MINIATURE PRESSURE TRANSMITTER ATM.MINI



PRODUCT OVERVIEW

The ATM.mini is a digitally compensated miniature pressure transmitter providing either a 4-20 mA, 2-wire output or 0.5-4.5 voltage output. The transmitter offers total static accuracies down to $\leq 0.1\%FS$ including linearity, hysteresis, repeatability, zero and span setting errors. Included in this static accuracy are hysteresis and repeatability of typically 0.01% which provides outstanding precision.

This performance is achieved by selecting the very best piezoresistive silicon sensor technology which STS has been refining for more than 30 years. The ATM.mini is suitable for static and dynamic pressure measurements with a frequency response of $<1ms$. The modular construction provides manufacturing flexibility and offers fast delivery for all pressure ranges and standard options.

Compound pressure ranges available.

Global Sensor Excellence

Features

- 4-20 mA/0.5-4.5 VDC
- 0-15 to 0-1,500 psi
- Fast Response $<1ms$
- $\leq 0.1\%$ Accuracy
- -40 to 250°F

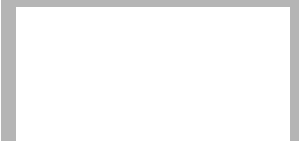
Applications

- Test & Measurement
- Industrial Process
- Test Benches
- Engine Tests
- Automotive

Contact

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Represented by:



Specification

Measurement

Pressure ranges

Any range from 0-15 to 0-1,500 psi FS available, in any engineering units such as psi, Pa, in H₂O, bar.

Absolute from 0-15 to 0-1,500 psia FS

Gauge from 0-15 to 0-1,000 psig FS

Sealed gauge from 0-150 to 0-1,500 psig FS

Compound from ±10 to -14.7 to 1,000 psi*

*must specify exact range. Performance related to the span.

Consult factory for other ranges.

Proof Pressure

All ranges: 3 x FS

Consult factory for higher proof pressure

Burst Pressure

>5,000 psi

Process Temperature Range

For 4-20 mA output: -40 to 212°F

For 0.5-4.5 VDC output: -40 to 250°F

Compensated Temperature Range

32 to 160°F (standard)

-15 to 212°F (option)

-40 to 250°F (option, voltage output only)

Storage Temperature Range

-40 to 250°F

Performance

Total Error Band (±typ/±max)

Standard:

≤0.5/0.8%: 32 to 160°F, all pressure ranges

Advanced:

≤0.5/0.8%: -15 to 212°F, all pressure ranges

Premium (voltage output only)

≤0.5/0.8%: -40 to 250°F, all pressure ranges

Total Error Band includes static accuracy and thermal effects over compensated range.

Specification Continued

Accuracy

Combined linearity, hysteresis, repeatability, zero and span settings:

All ranges: ≤±0.1% FS

Consult factory for other accuracies.

Long Term Stability

<0.1% FS/yr

Under standard conditions

Supply Voltage

9-33 VDC (for 4-20 mA output)

8-30 VDC (for 0.5-4.5 VDC output)

Influence of supply voltage < 0.05% FS

Current Consumption typically 3mA (0.5-4.5 VDC)

Reverse Polarity Protected

Min. Load Resistance

RL = (Vsupply - 9V)/0.02A (for 4-20 mA output)

RL > 10 Kohms (for 0.5-4.5 VDC output)

Influence of load resistance < 0.05% FS

Output Signal

4-20 mA, 2-wires

0.5- 4.5 VDC, 3-wires

Response Time:

<1ms (10 to 90% FS)

Insulation Resistance

> 50 Mohms @ 50 VDC (@ 68°F)

Construction

Material

All wetted parts are Stainless Steel 316L

Welded, hermetic construction when using appropriate electrical connector.

Process Connections

7/16 - 20 UNF-3A male

1/8 NPT male

3/8-24 UNJF-3A male

Other connections available at:

www.pmc1.com/connectorsATMmini

Specification Continued

Electrical Connection

Mini DIN

6-pin bayonet per MIL-C-26482 (10-6)

M12x1, 4 pins

Polyurethane cable

Mating connectors not supplied as standard

Other connections available at:

www.pmc1.com/connectorsATMmini

Weight

Typically 1.6oz (not including cable)

Vibration

20g, 10 to 2000 Hz, 3 axis

Mechanical Shock

300g/6ms, 3 axis, half sine

Ordering Information

For ordering code go to:

www.pmc1.com/orderATMmini OR

Call the factory at: 203 792-8686

Options

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

Examples include:

Electrical: i.e. RS485, HART etc.

Pressure snubber and bleed port

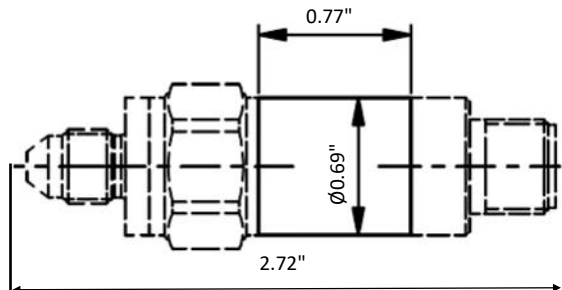
Special oil filling for food application etc.

PMC-STs, Inc. adopts a continuous development program which sometimes necessitates specification changes without notice

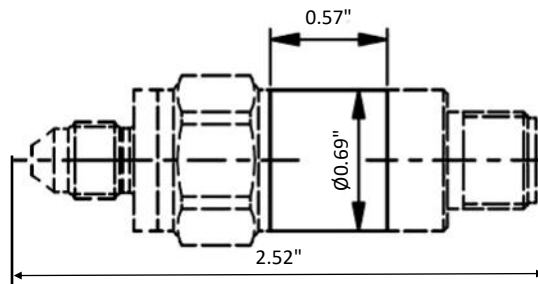
MECHANICAL DETAILS

Dimensions in inches

Version for current output (4-20 mA)



Version for voltage output (0.5-4.5 Vdc)



STS is registered ISO 9001:2015