

OPEN FACE-FLUSH MOUNT PRESSURE TRANSMITTER HAZARDOUS LOCATIONS ATM/F/IS

Features

- Accuracy: ≤ ± 0.1% FS or ≤ ± 0.25% FS Includes linearity, hysteresis, repeatability AND zero and span settings
- FS ranges from 1 to 360 psi
- Flush mount options, i.e. Tri-clamp
- Intrinsically safe certified
- Surge (lightning) protection option

Product overview and applications

The ATM/F/IS series 85 has been designed for use in hazardous locations and is part of a comprehensive range of transmitters specifically designed for the process industry where the fluids are of a clogging nature requiring a flush mount type of installation. 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.

Examples of applications include:

- Chemical processing monitoring & control
- Food, beverage and dairy industries
- Pharmaceutical
- Pulp, paper and wastewater
- Tank level measurement

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Specification

Measurement

Pressure ranges Any range from 1 to 360 psi FS available, in any engineering units such as psi, Pa, in H₂0, 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 temperature range

-15 to 130°F (process media, Fig. 1) -15 to 212°F (process media, Fig. 1) -15 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 total for -10 to 185°F, > 30 psi FS ±2% total for -10 to 185°F, 7 to 30 psi FS ±2.5% Prorated for ranges below 7 psi

Performance

Accuracy

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

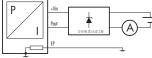
Long term stability

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

Specification continued

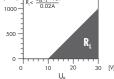
Supply voltage 10-30 VDC

Influence of supply voltage < 0.1% FS



Load resistance

Influence of load resistance < 0.1% FS $R_{l} < \frac{U_{B}[V] \cdot 10^{\circ}}{0.02A}$



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 compatability Stainless steel 316L, Viton seals

Other seal materials available

Pressure connection

Tri-clamp 1", 11/2" 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

Dimensions (inches)

Specification continued

Intrinsically safe SEV 11 ATEX 0142 X EEx 1G ia IIC T3 - T6 FM/FM-C, Class 1, Div. 1 approved

Weiaht

9 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/F/IS 85

- 2) Electrical connection
 - 01 DIN 43650
 - 06 6 pin bayonet (mating connector extra)
 - 17 Polyurethane cable (blue)
- 3) Pressure range, including eng. units, type
- 4) Accuracy
- 5) Output signal
- 6) Any special feature: i.e. lightning protection

Example ordering format: ATM/F/IS 85 - 17 - 100 psig - 0.1% -4 - 20mA - 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 (not IS) i.e. 1 to 5 VDC, 0 to 10 VDC, 0 to 20 mA, RS485
- Special oil filling for food application etc.
- Wide range of pressure connectors
- Wide range of electrical connectors

Version for medium temperature up to 212°F Fig. 3 1.82 Fig. 1 66 0.94 34 + Ø Ø Ø 1.57 0.67 +3.54 with option lightning protection Version for medium temperature up to 300°F ШТ.ТП + 34 • Ø ⇇ Fig. 5 Fig. 4 2.71 2.95 4.92 with option lightning protection Fig. 2 Specifications may change without notice. STS is registered ISO 9001-2008 10.00.0229B - 402



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