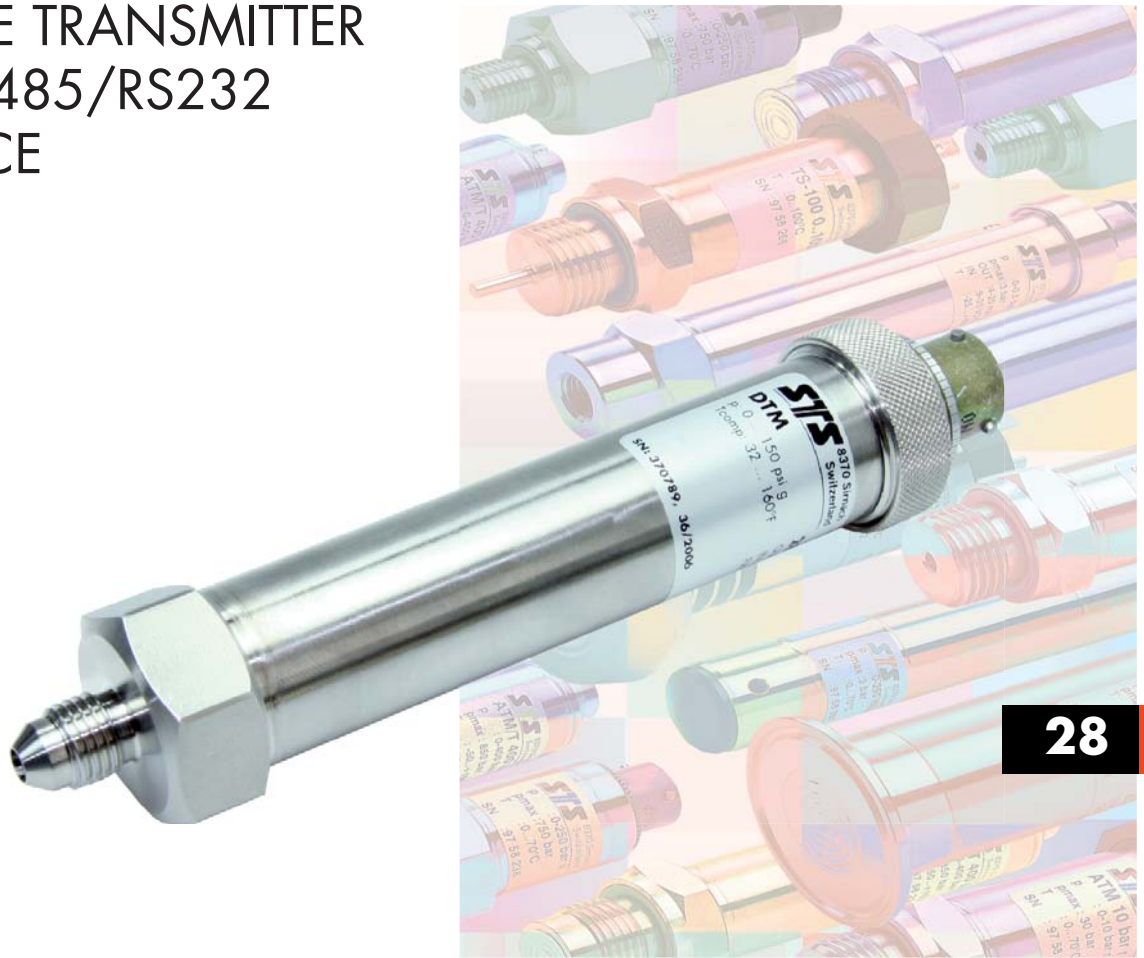


PRESSURE TRANSMITTER WITH RS485/RS232 INTERFACE DTM



28

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
- RS232C or RS485 interface

Product overview and applications

The DTM series 28 is a high precision pressure transmitter operating from a 5 to 30 Volt input and providing either an RS232C or RS485 interface for modern day digital communications. Modular construction and the 20 year proven history of STS piezoresistive sensor technology provide manufacturing flexibility and fast delivery for all pressure ranges.

Examples of applications include:

- Test and measurement
- Industrial process monitoring and control
- Test benches and calibration
- Automotive test
- Engine test

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

Specification continued

Performance

Accuracy

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

Long term stability

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

Supply voltage

5 - 30 VDC
 Influence of supply voltage < 0.1% FS

Resolution

< 0.01% FS

Integration time

1 microsecond to 20 seconds, adjustable

Insulation resistance

> 50 megohms @ 500 VDC (@ 68°F)

Construction

Pressure media compatibility

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

Pressure connection

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)
 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 - DTM 28
- 2) Electrical connection
 - 01 - DIN 43650 (mating connector extra)
 - 06 - 6 pin bayonet (mating connector extra)
 - 15 - Polyurethane cable
- 3) Interface
 - 61 - RS232C
 - 62 - RS485
- 3) Pressure range, including eng. units, type
- 4) Accuracy
- 5) Any special features

Example ordering format:
 DTM 28. 06 - 62 - 100 psig - 0.1%

Options

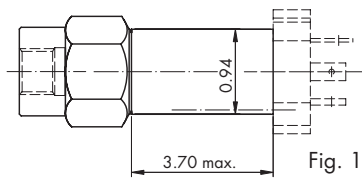
STS offers a wide range of options for these and other similar transmitters. Please consult the factory for any special requirements.

Examples include:

- Alternate electrical configurations i.e. 0 to 5 VDC, 0 to 10 VDC, 0 to 20 mA
- 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



Version for medium temperature up to 300°F

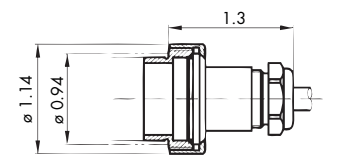
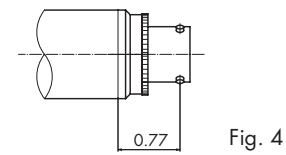
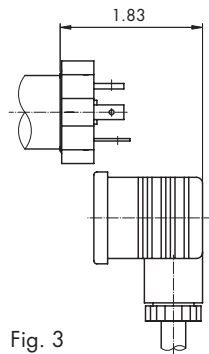
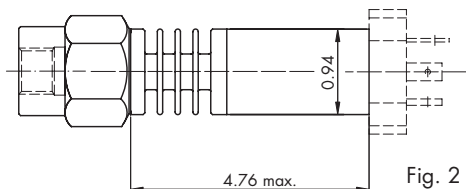


Fig. 5

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Specifications may change without notice.

STS is registered ISO 9001-2000



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