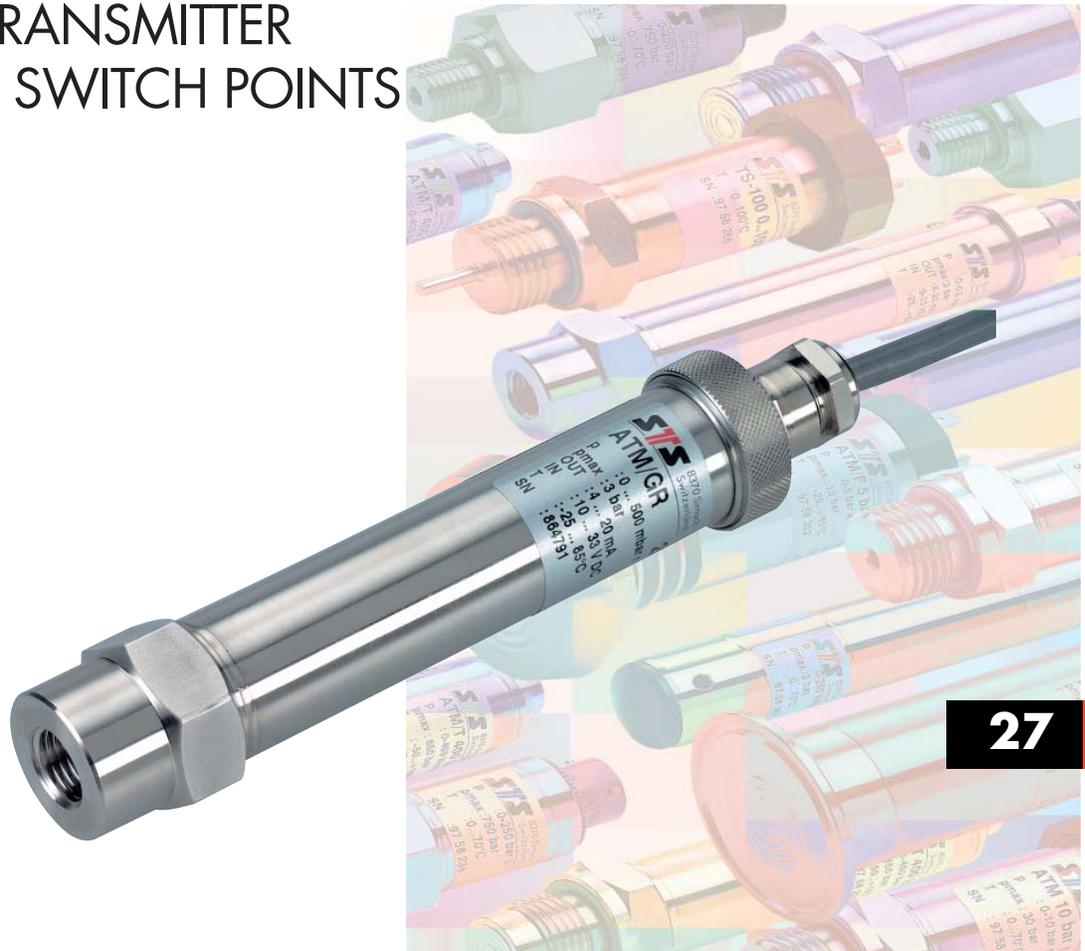


## PRESSURE TRANSMITTER WITH DUAL SWITCH POINTS ATM/GR



27

### Features

- Accuracy:  $\leq \pm 0.1$  % FS
- Full scale ranges from 1 to 15,000 psi
- Gauge, absolute or sealed gauge
- 0/4 to 20 mA Output
- Operating temperature: -40 to 185°F
- 2 Switch outputs, 0 to 100% adjustable

### Product overview and applications

The ATM/GR series 27 is a precision pressure transmitter based on the STS well proven ATM 23 series but incorporating two independent switch outputs adjustable over the full range of the transmitter. This transmitter with its excellent long term stability is capable of providing safety features in a wide range of industrial or process applications where pressure or level limits are critical.

Examples of applications include:

- Machine installations
- Industrial process monitoring and control
- Heating and ventilation
- Hydraulics
- Test and calibration system

**Specification**

**Measurement**

**Pressure ranges**

Any range from 1 to 15,000 psi FS available, in any engineering units such as psi, Pa, in H<sub>2</sub>O, 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)

**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 - 33 VDC

Influence of supply voltage < 0.1% FS

**Output signals**

0 to 20 mA or 4 to 20 mA

**Load resistance**

RL = (Vsupply - 6V)/0.02A, 1kOhm max.

Influence of load resistance < 0.1% FS

**Insulation resistance**

> 50 megohms @ 500 VDC (@ 68°F)

**Response time**

< 1ms, 10 to 90% FS

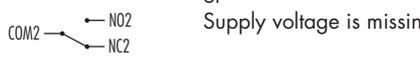
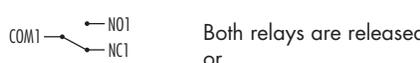
**Switches**

Switching voltage: 48 VDC max.

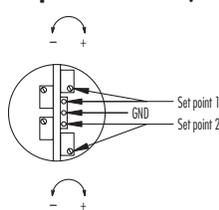
Switching current: 2 A max.

Switching power: 60 W max.

**Switching functions**



**Adjust switches (Connector side)**



**Construction**

**Pressure media compatibility**

Stainless steel 316L, Viton seals

Other seal materials available

Fully welded 316L version on request

**Specification continued**

**Pressure connection**

1/4" NPT female\*

Other connections available

\*Not recommended for pressure > 10,000 psi

**Electrical connection**

Binder 723, 12 pins connector (Fig. 3)

(Mating connector not included)

PVC cable (Fig. 4)

Demountable as standard

**Weight**

6 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/GR 27
- 2) Electrical connection  
45 - Binder 723, 12-pins connector  
10 - PVC cable
- 3) Pressure range, including eng. units, type
- 4) Output signal
- 5) Accuracy
- 6) Cable length
- 7) Any special features

Example ordering format:

ATM/GR 27. 10 - 100 psig - 4 to 20mA  
- 0.1% - 30 feet cable

**Options**

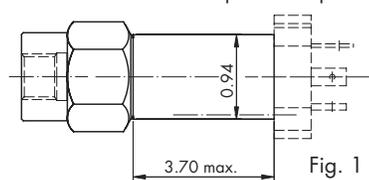
STS offers a wide range of options for these and other similar transmitters. Please consult the factory for any special requirements.

**Examples include:**

- Alternate electrical configurations  
i.e. 0 to 5/10 VDC, 0 to 20 mA, RS 485
- Intrinsic safety 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

**Dimensions (inches)**

Version for medium temperature up to 212°F



Version for medium temperature up to 300°F

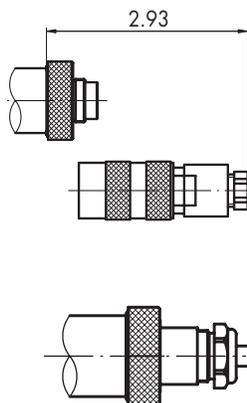
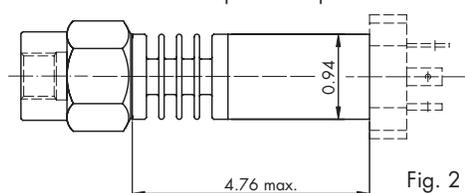


Fig. 3

Fig. 4

Specifications may change without notice.

STS is registered ISO 9001-2000

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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:**