

**Gas pressure transmitter****APPLICATIONS**

- ANALOG RELATIVE PRESSURE & TEMPERATURE SENSOR
- Electronic pressure sensor
- Electronic temperature sensor (optional)
- High accuracy
- IP 65 protection with cable gland
- Wide compensated temperature range
- Compatibility with corrosive fluids
- Primary element deposited on ceramic monolithic block

**HIGHLIGHTS***Technical Data*

Pressure FSO range (Bar)...0 – 1.6; 0- 5; 0- 10; 0-20\*

Overpressure.....2X rated

Response time (10% to 90%).....5ms

Operating fluid temperature range... - 20° + 85°C

Mechanical protection of active components...IP65

Compatibility with corrosive fluids

\*Versions with customized features can be provided

*Performance Data*

Pressure accuracy ( T=Trated ± 25°C): +/- 1,5% FSS

TC zero point: &lt;0,025 %FSS/°C

Temperature accuracy: +/- 15°C

Linearity error: +/- 01% FSS

Compensated temperature range: -20° + 85°C

Resolution: infinite

Electrical insulation: 50 Hz 1min 15kV

*Electrical Data*

Output: 4-20mA , 1-5 Vcc

Excitation: 10-35 VCC

Load: R&lt;750ohm

Plug: DIN 43650 MPM 4 poles connector

Cable LX=1mt optional

*Physical descriptions*

Material external: stainless steel AISI316

Material in contact with fluid: ceramic, stainless steel and EPDM

Pressure fittings: 1/4" gas male/female

Dimensions: Ø30x 40mm

Weight: 150 g



Type A transmitters are based on bridge resistance variation principle and the primary element is directly deposited on reaction mechanics by a silk screen-thick film process .

In this way the primary element can be very stable and offer the maximum protection because of monolithic ceramic block.

The innovative pressure sensor combines electronic precision with mechanical resistance for your complete safety in any conditions.

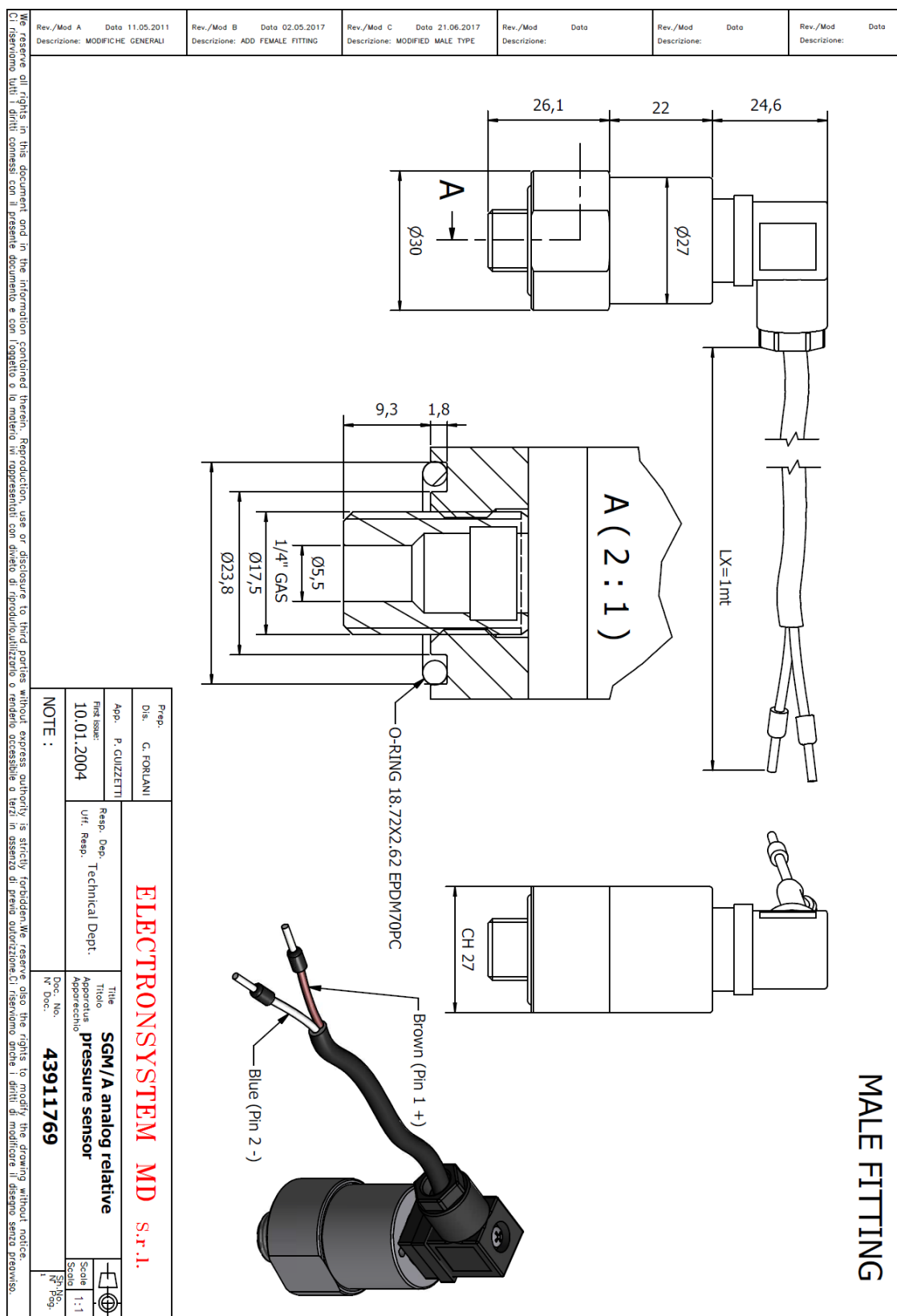
Low cost allows to use this sensor in many situation, above all in automation systems or as a supervisor for mechanical monitoring and process control.

For compatibility with most systems has ¼ gas male output fitting and is suitable for alimentary control because of the choice of material in contact with the fluid in accord with UL sanitation.

4-20mA analog output allows to get quite long distance link between sensor and remote control.

Temperature output allows to record temperature variation of device under control.

## Gas pressure transmitter



All specs are subject to change without notice

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**FEMALE FITTING**

Technical drawing showing the dimensions and details of a female fitting. The drawing includes a side view, a top view, and a perspective view of the assembled component.

**Dimensions:**

- Overall length: 24,6
- Length of the main body: 22
- Length of the flange: 16,8
- Flange diameter:  $\phi 27$
- Thread diameter:  $\phi 30$
- Thread length: B
- Thread pitch: 1,8
- Thread diameter:  $\phi 23,8$
- Thread diameter:  $\phi 17,5$
- Thread diameter: 1/4" GAS
- Thread length: 10,7
- Thread pitch: 1,8
- Thread diameter:  $\phi 27$
- Thread length: CH 27

**Details:**

- Thread: B (2 : 1)
- O-RING 18.72X2.62 EPDM70PC
- Blue (Pin 2 -)
- Brown (Pin 1 +)

**3D Perspective View:**

The perspective view shows the assembled component, including the flange, the main body, and the threaded section. The component is labeled "SGM/A analog relative pressure sensor".

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Rev./Mod A Data 11.05.2011 Descrizione: MODIFICHE GENERALI	Rev./Mod B Data 02.05.2017 Descrizione: ADD FEMALE FITTING	Rev./Mod C Data 21.06.2017 Descrizione: MODIFIED MALE TYPE	Rev./Mod Data Descrizione:	Rev./Mod Data Descrizione:	Rev./Mod Data Descrizione:
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CODE	FULL SPAN	OUTPUT
SGM/A/2A	1.6 Bar	4-20mA
SGM/A/5A	5 Bar	4-20mA
SGM/A/10A	10 Bar	4-20mA
SGM/A/20A	20 Bar	4-20mA
SGM/A/50A	50 Bar	4-20mA
SGM/A/2V	1.6 Bar	1-5 Vcc
SGM/A/5V	5 Bar	1-5 Vcc
SGM/A/10V	10 Bar	1-5 Vcc
SGM/A/20V	20 Bar	1-5 Vcc
SGM/A/50V	50 Bar	1-5 Vcc

VOLTAGE		CURRENT	
SGM/A/2A	1.6 Bar	4-20mA	
SGM/A/5A	5 Bar	4-20mA	
SGM/A/10A	10 Bar	4-20mA	
SGM/A/20A	20 Bar	4-20mA	
SGM/A/50A	50 Bar	4-20mA	
SGM/A/2V	1.6 Bar	1-5 Vcc	
SGM/A/5V	5 Bar	1-5 Vcc	
SGM/A/10V	10 Bar	1-5 Vcc	
SGM/A/20V	20 Bar	1-5 Vcc	
SGM/A/50V	50 Bar	1-5 Vcc	

ORDERING CODE:

Code : SGM/A/ / / /

1.6 : 1.6 Bar  
05 : 5 Bar  
10 : 10 Bar  
20 : 20 Bar  
50 : 50 Bar

C : with cable, length 1mt  
CON : with connector  
M : mole 1/4" gas  
F : femole 1/4" gas  
V : voltage output  
A : current output

NOTE :

Prep. C. FORLANI  
Dis. P. GUZZETTI  
First issue: 10.01.2004  
Resp. Dep. Technical Dept.  
Title SGM/A analog relative pressure sensor  
App. No. 43911769  
Doc. No. 43911769  
Scale 1:1  
Scale 1:1

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## Gas pressure transmitter

### STORAGE

If the complex must be storage before use, please keep dry and repaired.

Do not leave outdoor.

Device is strongly sensitive to humidity hence avoid to store where relative humidity is more than 90%

STORAGE TEMPERATURE:  $-30^{\circ}\text{C} \div +70^{\circ}\text{C}$

RELATIVE HUMIDITY: max 90% @  $+40^{\circ}\text{C}$

### MAINTENANCE

Maintenance of transmitter must be done compulsory in factory. We recommend every 5 years to send back transmitter for calibration check and inspection.

### WARRANTY

Device is covered by 24 months after installation or max 36 months after delivery.

In case of service the transmitter must be sent back to factory for inspection.

### WARNINGS

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## Gas pressure transmitter

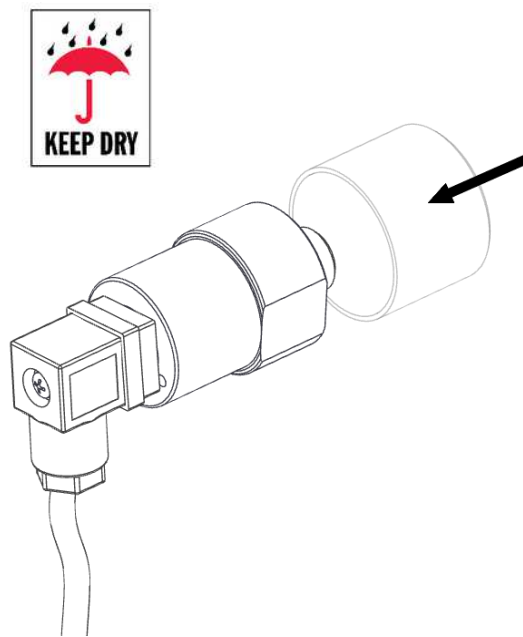
### CAUTION

Do not drop or hit the transmitter. The sensor is fragile and may break from sudden shock. When transporting the transmitter, use the original shipping box from Electronsistem MD.

### NOTE

Keep the transmitter dry and clean.

Do not remove the transparent transport protection caps before you are ready to install the transmitter.



### NOTE

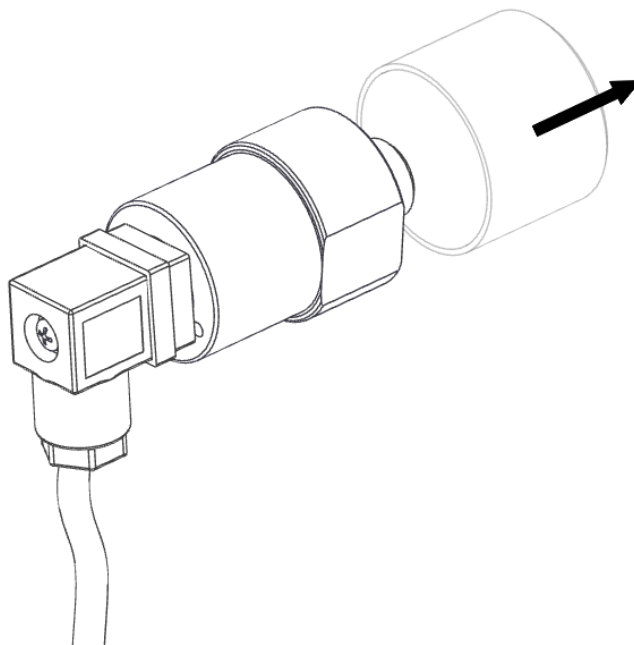
Connect the transmitter directly to the main gas volume, not behind a sampling line because this is the area where high humidity tends to accumulate and where the temperature of gas is not the image of gas near breaker.

The use of original cable wiring is advised to have the better protection performances.

## INSTALLATION

1. Remove the transparent transport cap when you are ready to install the transmitter. Check o-ring is clean without dust and properly assembled.

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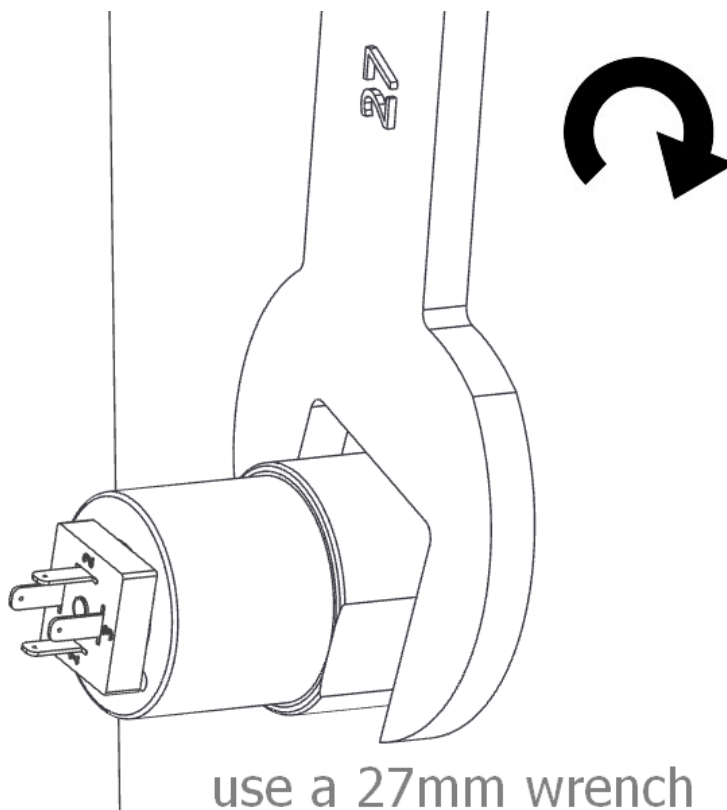
**Gas pressure transmitter**

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**Gas pressure transmitter**

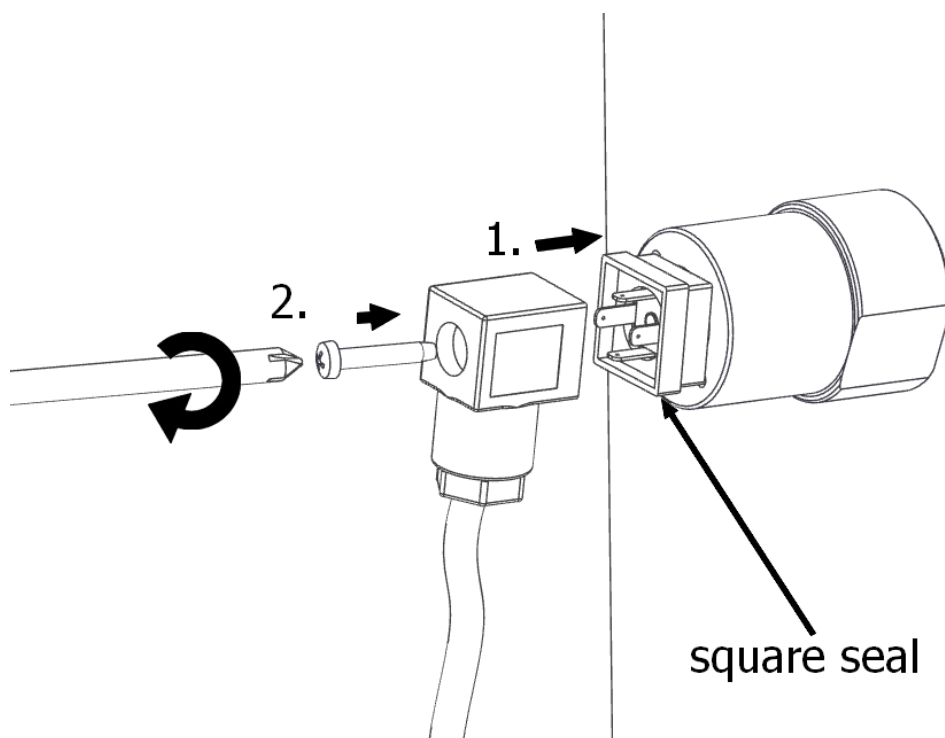
2. Install the transmitter to the mechanical coupling and tighten gently by hand. Then use a 27mm wrench to tighten the connection. Use a sufficient force to achieve a tight installation (recommended 10-15Nm) . The system must be leak-free for accurate measurement.



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3. Connect proper wiring into the output port checking the correct polarization of the connector and checking the presence of the squared seal.

Then insert the screw supplied and tight the screw with a screwdriver



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### DISCLAIMER NOTE:

While we provide application assistance it is up to the customer to determine the suitability for its use.

Specification may change without notice. The information we supply is believed to be accurate and reliable as of this printing. However we assume no responsibility for its use.

The quality of ElectronsistemMD products is guaranteed by a Quality, Safety and Environmental management system certified by DNV according to ISO 9001, ISO 18001 and ISO 14001. Electronsistem MD works in partnership with its customers in designing customized executions in order to meet specific requirements, please contact us.

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