

in medium and high voltage electrical installations

Type SGM/A

evision D of 07 December 2017

### Gas pressure transmitter



Type A transmitters are based on bridge resistance variation principle and the primary element is directly deposed 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.

#### **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 deposed 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: <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<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

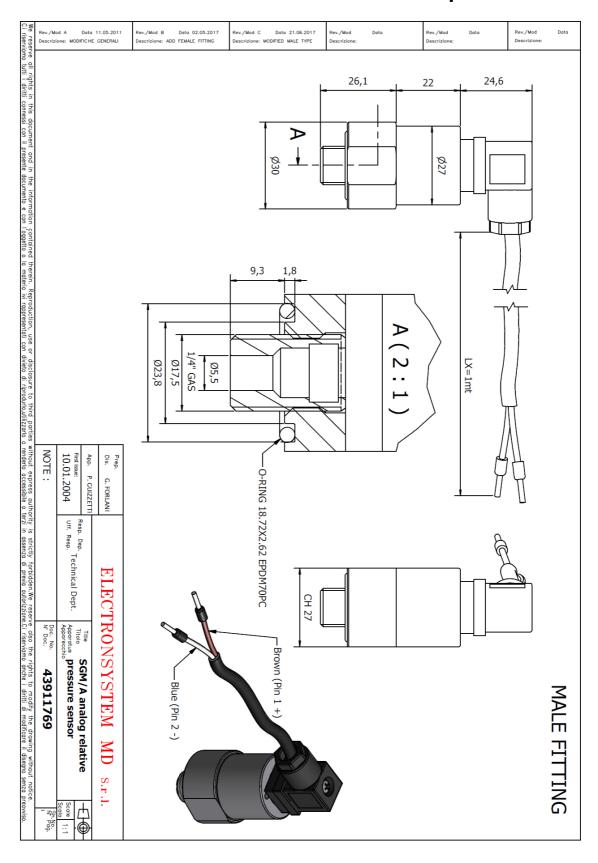
Dimensions: Ø30x 40mm

Weight: 150 g



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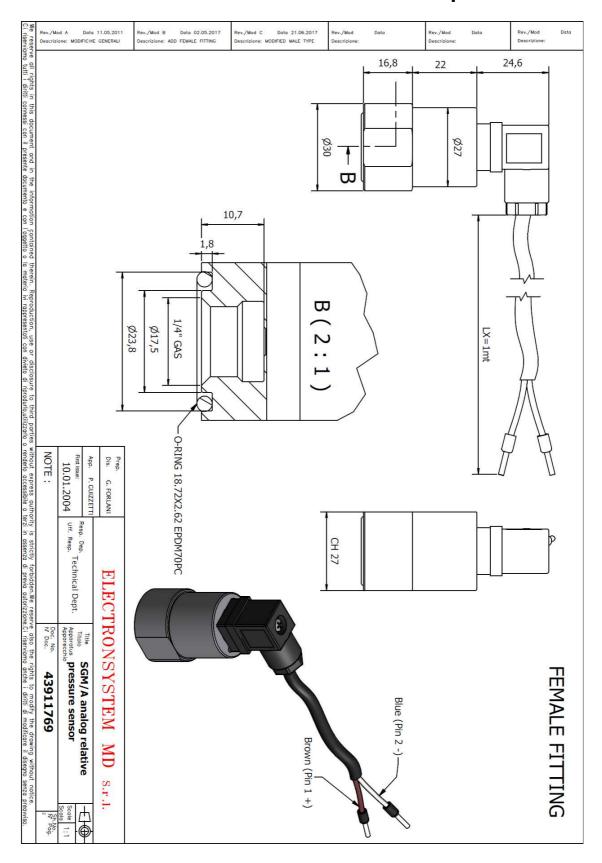
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Design and products for safety problem solving in medium and high voltage electrical installations

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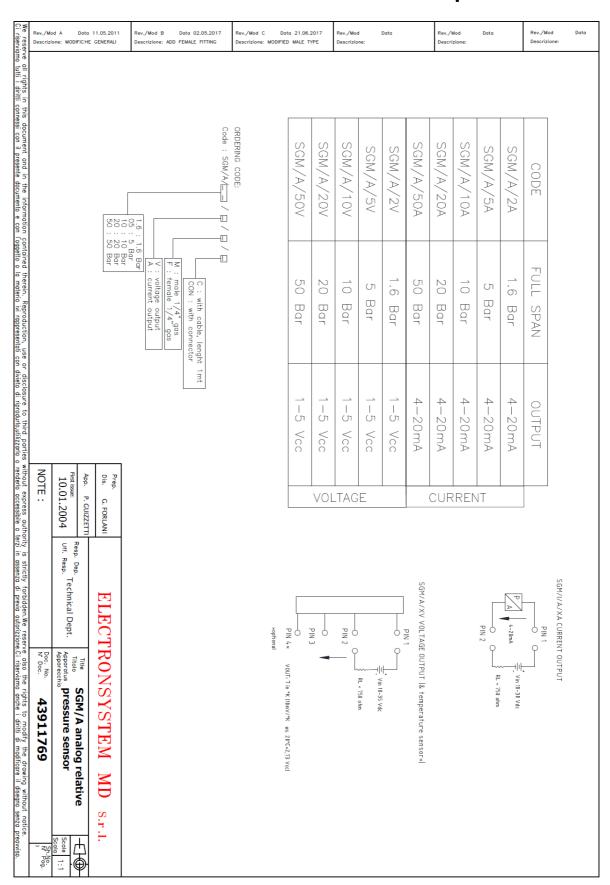




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all rights in this document and in the information contained therein. Reproduction, use or disclosure to third parties tutti i diritti connessi con il presente documento e con l'aggetto o la materia ini rappresentati con divieto di riprodurlo,utilizzarlo o		Calcium Nybounite Calcium Suffate Carbolic Acid (Phenol)				Calcium Hydroxide	Calcium Chloride	Calcium Chlorate	Bromine	Boric Acid	Benzoic Acid	Benzene Sulfonic Acid	Benzene	Benzaldehyde	Barium Sulfide	Barium Sulfate	Barium Chloride	Barium Carbonate	Antimony Trichloride	Aniline	Amyl Chloride	Amy Alcohol	Ammonium Sulfate	Ammonium Persulfate	Ammonium Nitrate	Ammonium Chioride Ammonium Hydroxide	Ammonium Carbonate	Ammonia, liquid	Ammonia 10%	Aluminum Chloride 20%	Aluminum Chloride	Alcohols: Propyl	Alcohols: Methyl	Alcohols: Etnyi	Alcohols: Butyl	Alcohols: Benzyl	Alcohols: Amyl	Acetone	Acetic Acid, Glacial	Acetic Acid 80%	Acetic Acid 20%	Acetic Acid	CHEMICAL			
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		GM/A analog relative Apparatus pressure sensor Apparecchio	TEM	Xylene	Whiskey & Wines	Weed Killers	Water, Fresh Water, Salt	Water, Deionized	Water, Acid, Mine	Vinyl Acetate Vinyl Chloride	Vinegar	Vegetable Juice	Urea	Triethylamine	Trichloroethylene	Trichloroacetic Acid	Toluene (Toluol)	Tetrahydrofuran	Tannic Acid	Sulfuric Acid (hot concentrated)	Sulfuric Acid (75-100%)	Sulfuric Acid (10-75%)	Sulfuric Acid (<10%)	Starch Starch	Stannic Chloride	Sodium Sulfide	Sodium Sulfate	Sodium Silicate	Sodium Hypochlorite (100%)	Sodium Hypochlorite (<20%)	Sodium Hydroxide (80%)	Sodium Hydroxide (20%)	Sodium Fluoride	Sodium Ferrocyanide	Sodium Cvanide	sodium Chlorida	Sodium Carbonate	Sodium Borate (Borax)	Sodium Bisulfite	Sodium Bisulfate	Sodium Acetate	Soap Solutions	Pyridine	Propylene Glycol	CHEMICAL	
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### **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°C ÷ +70°C RELATIVE HUMIDITY: max 90% @ +40°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

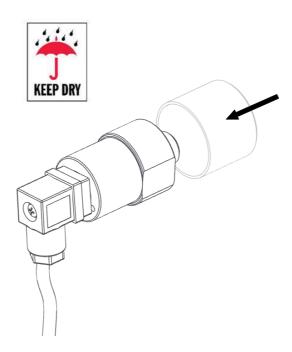
#### **CAUTION**

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 Electronsystem 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 imagine of gas near breaker.

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

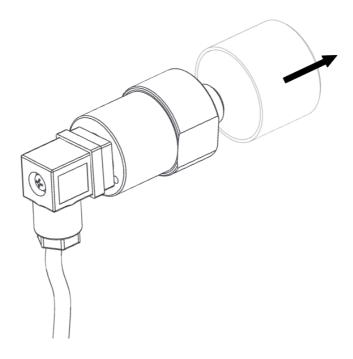
# **INSTALLATION**

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

All specs are subject to change without notice



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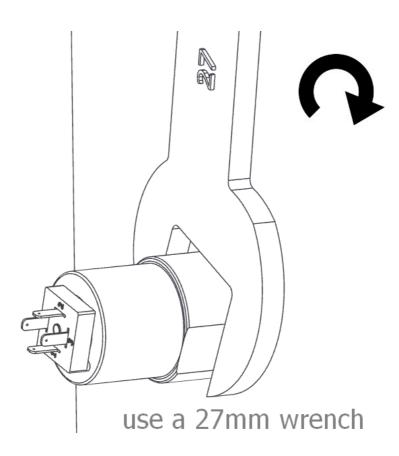




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2. Install the transmitter to the mechanical coupling and tighten gently by hand. Then use a 27mm wrench to tighten the connection. Use a sufficient force to achieve a tight installation (recommended 10-15Nm). The system must be leak-free for accurate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



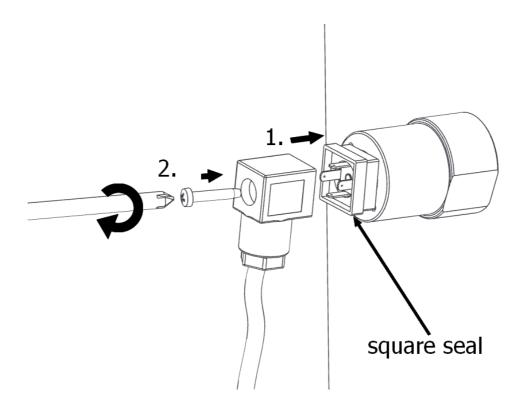


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3. Connect proper wiring into the output port checking the correct polarization of the connector and checking the presence of the squared seal.

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