



ATEX INSTRUCTIONS MANUAL
Pressure Transmitters
(complement to the datasheet)
TR/TA ... GR/GA ... Series



-----**SAFETY PRECAUTIONS**-----

You must read carefully all the instructions of this manual. You must not start the installation before taking these instructions into account. This equipment might receive some hazardous voltages. If you do not consider these instructions, you risk to face serious corporal and / or material injuries.

Before setting up your installation, check the model suit your application. The wiring of this equipment must be executed with the in force rules by a qualified staff.

1 / INSTRUCTIONS OF STARTUP :

1.10 / FUNCTION : Pressure and temperature transmitters are aimed at measuring relative or absolute pressure. The equipment delivers an 4...20 mA signal proportional to the measured pressure.

1.20 / ATEX MARKING MEANING AND ATEX INSTALLATION ZONES: ☞ refer to the following page (according to the model)

1.30 / INSTALLATION :

Location : This equipment can be installed in some explosive atmospheres (surface industries or mining according to the model) and is in compliance with the 94/9/CE ATEX directive. The surface temperature must not exceed the one indicated on the cover.

Fixing and mounting : The housing must be protected against mechanical shocks. No drilling or machining must be done. Make sure the cable gland is appropriately tightened and make a loop with your cable to avoid running water alongside. If you do not take these precautions into account, the envelop certification would be put at risk, and the ingress of protection of the housing might be modified !

Electrical wiring : Electrical wiring must be executed when DE-ENERGIZED after mounting and fixing the instrument. Electrical wiring must be executed with respect to the sound engineering practice and the in force norms. Cables must be shielded type and fit cable inputs furnished as standard. In order to guarantee a perfect tightness, the cable gland should be screwed with an appropriate spanner. Terminals wiring are designed for 1.5mm² max. wires. Earthing connection must be connected to an equipotential earthing network for GR/GA type.

The characteristics of the cable furnished for the model type TR / TA*1, 2, 3... or GR / GA*1, 2, 3... are the following : MBL type - shielded type - PVC coated - 2 x 0.6mm². The electrical connection of these pressure transmitters must comply with the EN 60079-11 norm and, in particular § 6.1.

Cables path : The type and the path of cables (I.S. cables) must comply with the in force rules. Careful precautions must be taken to avoid electromagnetic couplings with other cables capable of causing hazardous voltages or currents. Cables and wires must be protected against any damages.

Specials conditions for a safe use : ☞ refer to the following page (according to the model)

1.40 / SETTING : Transmitters type TR / TA... can be setted with calibrators. Zero and span adjustment will be done throught 2 potentiometers (see data sheet).

2 / MAINTENANCE :

Precautions to be observed during maintenance

The dismantling of the equipment must be executed when DE-ENERGIZED with a spanner adapted to the connection.

GEORGIN guarantees the certification of the equipment EX Works. Any operation other than the setting of the zero or the span of pressure transmitters type TR / TA... will rule out GEORGIN's responsibility in case of failure. If a fault is suspected or observed, the equipment must be returned to our services or mandatory, only authorised to expertise or repair the equipment.

3 / CONTACT US :

This manual is available in several languages as well as the EC type Examination Certificate on our website **www.georgin.com**

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INTRINSIC SAFETY INSTRUMENTS - ATEX CERTIFIED

Marking meaning

Manufacturer	GEORGIN - 92320 CHATILLON France	
Instrument type	TR/TA...	GR/GA...
ATEX protection	Intrinsic safety (according to EN 60079-0, EN 60079-11, EN 61241-0 et EN 61241-11)	
EC examination type	LCIE 01 ATEX 6065 X	LCIE 02 ATEX 6137 X
Housing protection	IP 65 or 66	IP 65 or 67
Marking	CE 0081 II 1GD Ex ia IIC T6 or T5 - Ex iaD20	CE 0081 II 1GD Ex ia IIC T6 (or T5) - Ex iaD 20 CE 0081 I M1 Ex ia I
For zones	0/1/2 for gas of groups : IIA, IIB, IIC (according to EN60079-10) 20/21/22 for dusts (according to EN50281-3)	
Equipment category	1GD	1GD or M1
Surface temperature	80°C (T6) at amb. T ≤ 55°C / 95°C (T5) at amb. T ≤ 70°C	

Special conditions for a safe use

These equipments must only be connected to intrinsically safe certified equipment. This association must be compatible to the intrinsic safety rules. The electrical parameters of these equipments must not exceed the values indicated in the table beside.

The ambient temperature of use must never overrun these limits :

- +55°C (T6 class)
- +70°C (T5 class)

The surface temperature of the device (indicated on the device) must never be exceeded : this temperature must take into account both ambient and fluid temperatures.

The installation of equipment in zone 0 must comply with the EN 60079-14 norm and, in particular § 12.

The electrical connection of pressure transmitters with output cable (TR / TA*1, 2, 3... or GR / GA*1, 2, 3...) must comply with the EN 60079-11 norm and, in particular § 6.1.

⁽¹⁾For GR/GA... output cable version, take into account the capacity and the lineic inductance of the cable.

electrical parameters TR/TA... Series	
U (V)	≤ 28V
I (mA)	≤ 140 mA
P (W)	≤ 1 W
Ci	≈ 0 (negligible) = 1,3 nF/m (modèle sortie câble)
Li	≈ 0 (negligible)
electrical parameters GR/GA... Series	
U (V)	≤ 28V
I (mA)	≤ 100 mA
P (W)	≤ 0.7 W
Ci ⁽¹⁾	≈ 0 (negligible)
Li ⁽¹⁾	= 168 μH

Particular recommendations :

Excepted transmitters with cable output (cable fitting made in our workshops), make sure the cable gland is appropriately tightened. If you do not take these precautions into account, the envelop certification would be put at risk, and the index of protection of the housing might be modified !

DECLARATION DE CONFORMITE
STATEMENT OF CONFORMITY

Nous, soussignés, **REGULATEURS GEORGIN - 14115 rue Pierre SEMARD - 92320 CHATILLON - FRANCE**

déclarons sous notre seule responsabilité que les transmetteurs de pression type TR/TA & GR/GA de Sécurité Intrinsèque de notre conception, destinés aux atmosphères explosibles, satisfont aux dispositions de la Directive ATEX du Conseil des Communautés Européennes 94/9/CE du 23.03.94.

we, under our own responsibility, that the Pressure transmitters type TR/TA & GR/GA in Intrinsic Safety of our Production, designed for hazardous atmospheres, comply with the conditions of the ATEX Directive 94/9/CE of 23.03.94 of the European Community Council.

TYPE	CERTIFICATION IDENTIFICATION	CATÉGORIE	Normes applicables	N° de l'attribution de l'avis de conformité
TR/TA	Ex ia IIC T6/T5 - Ex iaD 20	1GD	EN 60079-0 (06) EN 60079-11 (07) EN 61241-0 (06) EN 61241-11 (06)	LCIE 01 ATEX 6065 X
GR/GA	Ex ia IIC T6/T5 - Ex iaD 20 et Ex ia I	1GD M1	EN 60079-0 (06) EN 60079-11 (07) EN 61241-0 (06) EN 61241-11 (06)	LCIE 02 ATEX 6137 X

Audit production Attesté IV of LCIE 01 ATEX 6065 X 92320 Chatillon - France / Audit of manufacture approved by LCIE 01 ATEX 6065 X 92320 Chatillon - France

L'installateur et l'utilisateur doivent cependant observer les prescriptions de montage et de raccordement définies dans nos catalogues et notices techniques.
The installer and the end-user must, however, comply with the mounting and connecting instructions defined in our catalogues and technical leaflets.

De plus, ils satisfont aux prescriptions de la Directive de Compatibilité Electro-Magnétique "CEM" : 89/336/CE du 03.05.89 modifiée les Directives 92/31/CE du 29.04.92 et 2004/104/CE du 15.12.04.
Moreover, they comply with the Electro-Magnetic Compatibility Directive "CEM" : 89/336/CE of 03.05.89 modified by Directives 92/31/CE of 29.04.92 and 2004/104/CE of 15.12.04.

La conception de ce matériel répond aux normes suivantes :
Conception of this equipment is made according to the following standards :

Norme	Année	CEM - Norme générale immunité	EMC - Generic standard
EN 61000-6-2	2005	CEM: Norme générale immunité	EMC - Generic standard
EN 61326-1	2006	Matériel électrique de mesure Exigences générales relatives à la CEM	Electrical equipment for measurement EMC requirements
EN 61326-2-3	2006	Matériel électrique de mesure Exigences relatives à la CEM concernant les transformateurs et conditionneurs	Electrical equipment for measurement EMC requirements for transformers with integrator or remote signal conditioning
EN 61000-4-2	2001	CEM: Décharges Electrostatiques	Electrostatic discharge
EN 61000-4-3	2006	CEM: Immunité aux champs électromagnétiques	Electromagnetic fields
EN 61000-4-4	2005	CEM: Immunité aux transitoires rapides en salve	Burst fast transient
EN 61000-4-5	2007	CEM: Immunité aux ondes de choc	Surge / Shock transient
EN 61000-4-6	2007	CEM: Immunité aux perturbations conduites	Conducted perturbations
EN 55022	2007	CEM: Emissions conduites et rayonnées	Conducted emissions and radiated emissions

Dependant, ils sont exclus du champ d'application de la Directive des Equipements sous Pression "DESP" : 97/23/CE du 09.07.97.
However, they are excluded of the application field of the Pressurized Equipment Directive "PED" : 97/23/CE of 09.07.97.

Année d'apposition du marquage CE : 2002
Chatillon, le 1^{er} octobre 2009

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CEM 01_ATEX TR 06 0 / MARIAGE C 4 ATEX TR 06 0

available on www.georgin.com

