



IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification Scheme for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.: IECEx INE 13.0022X issue No.:0 Certificate history:

Status: **Current**

Date of Issue: **2013-12-11** Page 1 of 3

Applicant: **REGULATEURS GEORGIN**
14-16 rue Pierre Sépard
92 CHATILLON FRANCE
France


Electrical Apparatus: **Temperature Converter type Tia*B**
Optional accessory:

Type of Protection: "ia"

Marking: Ex ia IIC T4 Ga
Ex ia IIC T135°C Da

Approved for issue on behalf of the IECEx
Certification Body: Thierry HOUEIX

Position: Ex Certification Officer

Signature: 
(for printed version)

Date: 2013-12-11



1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting the [Official IECEx Website](http://www.iecex.com).

Certificate issued by:

INERIS
Institut National de l'Environnement Industriel
et des Risques
BP n2
Parc Technologique ALATA
F-60550 Verneuil-En-Halatte
France

INERIS

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Manufacturer: **REGULATEURS GEORGIN**
14-16 rue Pierre Sépard
92320 CHATILLON
France

Additional Manufacturing location
(s):

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements. This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended.

STANDARDS:

The electrical apparatus and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards:

IEC 60079-0 : 2011 Edition: 6.0	Explosive atmospheres - Part 0: General requirements
IEC 60079-11 : 2011 Edition: 6.0	Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
IEC 60079-26 : 2006 Edition: 2	Explosive atmospheres - Part 26: Equipment with equipment protection level (EPL) Ga

This Certificate does not indicate compliance with electrical safety and performance requirements other than those expressly included in the Standards listed above.

TEST & ASSESSMENT REPORTS:

A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in

Test Report:

FR/INE/ExTR13.0023/00

Quality Assessment Report:

FR/LCI/QAR09.0004/04



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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

The Tia*B devices are temperature transducer protected by intrinsic safety in level of protection "ia".
The Tia*B transducers realize the interface with temperature sensors types PT100, NI100, PT1000, NI1000, thermocouples, to restore the signal as current loop 4/20mA.
Three type are defined : Tia1B, Tia2B and Tia3B.

CONDITIONS OF CERTIFICATION: YES as shown below:

The equipement is intended to be used in an operating temperature range from -40°C to +85°C.



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PARAMETERS RELATING TO THE SAFETY

Maximum input characteristics for Tia*B:

$U_i = 28V - I_i = 100\text{ mA} - P_i = 700\text{ mW} - C_i = 0\text{ nF} - L_i = 0\text{ mH}$.

Maximum output characteristics:

- For the type Tia1B

Terminal marking	Uo (V)	Io (mA)	Po (mW)	Co (nF) (L=0)	Lo (mH) (C=0)
3 - 4 - 7 - 8 / earth	28	27.2	190.5	83	28

Remark : cable connected to Tia1B input has to get inductance under 20 mH

- For the type Tia2B

Terminal marking	Uo (V)	Io (mA)	Po (mW)	Co (μ F) (L=0)	Lo (mH) (C=0)
4 - 7 - 8 / 3	5.88	3.52	5.17	42	100

- For the type Tia3B

Terminal marking	Uo (V)	Io (mA)	Po (mW)	Co (μ F) (L=0)	Lo (mH) (C=0)
4 - 7 - 8 / 3	5.88	3.26	4.8	41.99	100

MARKING

Marking has to be readable and indelible; it has to include the following indications:

REGULATEURS GEORGIN
92 CHATILLON FRANCE
Tia*B

IECEX INE 13.0022X

(Serial number)

Ex ia IIC T4 Ga

Ex ia IIIC T135°C Da

WARNING - REFER TO THE INSTRUCTION MANUAL

* May be replaced by a figure according to the alternative.

Marking may be carried out in the language of the country of use.

The equipment has also to carry the marking normally stipulated by its construction standards.



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ROUTINE EXAMINATIONS AND TESTS

For the transducers types Tia2B and Tia3B in accordance with the paragraph 11.2 of IEC 60079-11, the non-mains transformer referenced B1 must undergo a dielectric strength test for a period of at least 1s at a frequency range between 48 Hz and 62 Hz and a RMS voltage of:

- 1500 V between input and output windings.