



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 16.0053X

Issue No: 0

Certificate history:

Issue No. 0 (2017-05-17)

Status: **Current**

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Date of Issue: **2017-05-17**

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

Equipment: **Pressure Switch and Temperature Switch with Stainless steel housing serie .FX...**

Optional accessory:

Type of Protection: **db eb tb**

Marking:

Ex db eb IIC TX Gb
Ex tb IIIC TX Db

*Approved for issue on behalf of the IECEx
Certification Body:*

Thierry HOUËIX

Position:

Ex Certification Officer

*Signature:
(for printed version)*

Date:

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
France



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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 60079-1 : 2014-06 Edition:7.0	Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
IEC 60079-31 : 2013 Edition:2	Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"
IEC 60079-7 : 2015 Edition:5.0	Explosive atmospheres – Part 7: Equipment protection by increased safety "e"

*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/ExTR16.0056/00](#)

Quality Assessment Report:

[FR/LCI/QAR09.0004/08](#)



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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

The serie .FX... devices are pressure switch and temperature switch with stainless steel housing protected with the types of protection Ex db eb (for the group IIC) and Ex tb (for the group IIIC).

The enclosure is composed of:

- Stainless steel base and cover with captive screws,
- Seal gaskets as defined in the manufacturer's documents,
- A sensing element for pressure (gauge, differential or absolute) or temperature control,
- One or more optional cable glands, with or without amplifier/reducer, certified for the utilization concerned,
- A mounting system, depending on the model,
- An adjustment system.

The enclosure gets the degrees of protection IP66/IP67 according to the IEC 60529 standard.

The device contains:

- One or two flameproof built-in switch(es) Type 07-1511- from BARTEC GmbH (PTB 98ATEX1032U),
- Increased safety connecting terminals, 3 or 6-pin, Type 07-9702-0*2* / **** from BARTEC GmbH (PTB 99ATEX3117U) or Terminal strips Type MK 3 from WEIDMULLER INTERFACE GmbH & Co (SIRA 01ATEX3248U),
- An internal mechanism with the adjustment system(s),
- Optional two enamelled coil resistors for line monitoring.

SPECIFIC CONDITIONS OF USE: YES as shown below:

- Rated ambient temperature range: -40°C to +60°C.

- For models without line resistance:

Max Temp Process	80°C	95°C	130°C	150°C
Temp Class (Gas)	T6	T5	T4	T3
Surface Temp (Dust)	T80°C	T95°C	T105°C	T120°C

- For models with line resistance:

- Max Temp Process : 150°C
- Temp class (Gas): T3
- Surface temp (Dust): T120°C

- Terminals: The instructions of the terminals shall be followed. Models with the terminal strips Type MK 3 from WEIDMULLER INTERFACE GmbH & Co, must be installed and wired with cable in an ambient temperature of -10°C to +80°C.

Annex:

[IECEX INE 16.0053X-00_Annex.pdf](#)



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PARAMETERS RELATING TO THE SAFETY

Without line monitoring:

$$U_{\max} \leq 250 \text{ V}, I_{\max} = 5 \text{ A}$$

With line monitoring:

$$U_{\max} \leq 30 \text{ V}, I_{\max} = 5 \text{ A}$$

The resistors R1 and R2 are defined as a function of the input voltages of the controller and so as to have power <1.2W.

The value of R1 must be $\leq 1500 \text{ Ohm}$ and the value of R2 must be $\leq 1500 \text{ Ohm}$.

LIST OF THE COMPONENT INTENDED TO BE INSTALLED

Type	Name of the manufacturer	Certificate number	Marking	Standards
Connecting Terminal type 07-9702-0*2*/****	BARTEC GmbH	IECEX PTB 07.0007U	Ex eb IIC Gb or Ex eb I Mb	IEC 60079-0:2011 IEC 60079-7:2015
Terminal strips Type MK 3	WEIDMULLER INTERFACE GmbH & Co	IECEX SIR 05.0036U	Ex e II	IEC 60079-0:2004 IEC 60079-7:2001 <i>No applicable technical differences</i>
Built-in switch Type 07-1511-	BARTEC GmbH	IECEX PTB 07.0040U	Ex d IIC Gb resp. Ex db IIC Ex d I Mb resp. Ex db I	IEC 60079-0:2007 IEC 60079-1:2007 <i>No applicable technical differences</i>



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MARKING

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

- GEORGIN
- 92 CHATILLON, FRANCE
- .FX... ⁽¹⁾
- IECEx INE 16.0053X
- (Serial number)
- Ex db eb IIC TX Gb
- Ex tb IIIC TX Db
- IP66/IP67
- (U_{max}), (I_{max})
- T_{cable}: 72 °C
- WARNING: DO NOT OPEN WHILE ENERGIZED

⁽¹⁾ The type is completed by numbers and letters corresponding to the manufacturing variations.

ROUTINE EXAMINATIONS AND TESTS

In accordance with clause 7.1 of the IEC 60079-7 standard, each pieces of equipment defined above has to have successfully passed, before delivery, a dielectric strength test on each of the different circuits of the connection units, performed according to the relevant standards, the supply voltage shall be applied during one minute.

When the creepage and clearance dimensions are rigidly controlled by tooling in the manufacturing process, the routine tests may be performed on a statistical basis in accordance with ISO 2859-1 with an acceptance quality limit (AQL) of 0.04.