



# INERIS

INSTITUT NATIONAL DE L'ENVIRONNEMENT  
INDUSTRIEL ET DES RISQUES

Parc Technologique ALATA  
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- (2) **Equipment and protective systems intended for use in potentially explosive atmospheres  
Directive 94/9/EC**

## (1) **EC-TYPE EXAMINATION CERTIFICATE**

(3) Number of the EC type examination certificate: **INERIS 03ATEX0047**

(4) Protective system or equipment :

**CONTROL AND SIGNALLING UNITS TYPE EFG6, EFG10, EFG12 et EFSC218\***  
(The asterisk is replaced by a number and letter corresponding to manufacturing variation.)

(5) Manufacturer:

**FEAM**

(6) Address:

Via Mario Pagano , 3  
20090 Trezzano Sul Naviglio (MI)  
**ITALY**

- (7) This protective system or equipment and any other acceptable alternative of this one are described in the annex of this certificate and the descriptive documents quoted in this annex.
- (8) The INERIS, notified body and identified under number 0080, in accordance with article 9 of Council Directive 94/9/EC of the 23<sup>rd</sup> March 1994, certifies that this protective system or equipment fulfils the Essential of Health and Safety Requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres, described in appendix II of the Directive.

The examinations and the tests are consigned in official report N°P41880/03.

(9) The respect of the Essential Health and Safety Requirements is ensured by:


- conformity with:

EN 50 014	of June	1997 + A1 and A2
EN 50 018	of November	2000 + A1
EN 50 281-1-1	of September	1998 + A1

- specific solutions adopted by the manufacturer to meet the Essential Health and Safety Requirements described in the descriptive documents.

- (10) Sign X, when it is placed following the Number of the EC type examination certificate, indicates that this equipment and protective system is subjected to the special conditions for safe use, mentioned in the annex of this certificate.

- (11) This EC type examination certificate relates only to the design, examination and tests of the specified equipment or protective system in accordance to the directive 94/9/EC. Further requirements of the Directive apply to the manufacturing process and supply of this equipment or protective system, these are not covered by this certificate.
- (12) The marking of the equipment or the protective system will have to contain:

 II 2 GD

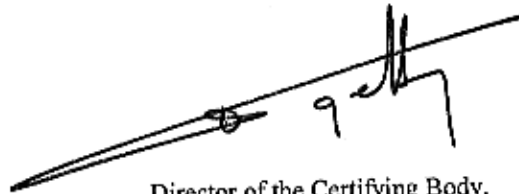
EEx d IIB T5 or T4  
IP65 T100°C or T125°C

Verneuil-en-Halatte, 2003 06 17



C. PETITFRERE

Engineer at the Laboratory of Certification of ATEX  
Equipment



Director of the Certifying Body,  
By delegation  
B. PIQUETTE  
Deputy manager of Certification



(13)

## ANNEX

(14)

EC TYPE EXAMINATION CERTIFICATE N°INERIS 03ATEX0047

(15) DESCRIPTION OF THE EQUIPMENT OR THE PROTECTIVE SYSTEM

The enclosure made in light alloy consists of a body closed by a cover fixed by screws.

In accordance with the type the cover can be fitted with a light and/or control shafts.

The enclosure present the degrees of protection IP65 according to European standard EN 60 529.

PARAMETERS RELATING TO THE SAFETY

Characteristic of the signal lamps

Maximum supply voltage : 380 V

Maximum power : 5 W

Control and signalling units type EFG6, EFG10 and EFG12

Maximum supply voltage : 600 V

Maximum intensity

Push button : 10 A

Switch : 16 A

Control and signalling units type EFSC218\*

Maximum supply voltage : 660 V

Maximum intensity : 63 A


**MARKING**

Marking must be readable and indelible ; it must comprise the following indications:

**A- Enclosure for ambient temperature 40°C :**

FEAM  
20090 Trezzano Sul Naviglio (MI)  
ITALY

EF (\*)  
INERIS 03ATEX0047  
(serial number)  
(Year of construction)

 II 2 GD  
EEx d IIB T5  
T°amb : -20°C to 40°C  
IP65 T100°C  
AFTER DE-ENERGIZED WAIT 20 MINUTES BEFORE OPENING.


**(\*) EFG6 or EFG10 or EFG12 or EFSC218\***

The asterisk is replaced by a number and letter corresponding to manufacturing variation.

**B- Enclosure for ambient temperature 55°C :**

FEAM  
20090 Trezzano Sul Naviglio (MI)  
ITALY

EF (\*)  
INERIS 03ATEX0047  
(serial number)  
(Year of construction)

 II 2 GD  
EEx d IIB T4  
T°amb : -20°C to 55°C  
IP65 T125°C  
T° cable : 90°C  
AFTER DE-ENERGIZED WAIT 20 MINUTES BEFORE OPENING.

**(\*) EFG6 or EFG10 or EFG12 or EFSC218\***

The asterisk is replaced by a number and letter corresponding to manufacturing variation.

The whole marking can be carried out in the language of the country of use.

The protective apparatus or system must also carry the marking normally envisaged by the standards of construction which relate to it.

**ROUTINE EXAMINATIONS AND TESTS**

According to 16.1 of standard EN 50 018, each example of the apparatus defined above must have successfully passed before delivery an overpressure test, of a period comprised between 10 and 60 secondes under 9,5 bar.

**(16) DESCRIPTIVE DOCUMENTS**

The technical report is composed of the documents quoted hereafter, constituting the descriptive file of the apparatus, object of this certificate.

- Descriptive note NT-018/ATEX rev.0 of 2002.04.22 (8 pages)
- Instructions n° IU018/ATEX rev.0 of 2002.04.22 (1 page)
- Drawing n° AC018/ATEX folio 1 of 2002.04.22
- Drawing n° AC018/ATEX folio 2 of 2002.04.22
- Drawing n° AC018/ATEX folio 3 of 2002.04.22
- Drawing n° AC018/ATEX folio 4 of 2002.04.22
- Drawing n° AC018/ATEX folio 5 of 2002.04.22
- Drawing n° AC018/ATEX folio 6 of 2002.04.22
- Drawing n° AC018/ATEX folio 7 of 2002.04.22

These documents were signed on 2003.05.28

**(17) SPECIAL CONDITIONS FOR SAFE USE**

The special conditions are defined in the instructions.

**(18) ESSENTIAL REQUIREMENTS OF SAFETY AND HEALTH**

The respect of the Essential Health and Safety Requirements is ensured by:

- conformity to the European standards EN 50 014, EN 50 018 and EN 50 281-1-1.
- the whole of the provisions adopted by the manufacturer and described in the descriptive documents.

## ADDITION

(3) INERIS 03ATEX0047/01

(4) CONTROL AND SIGNALLING UNITS TYPE EFG6, EFG10, EFG12 and EFSC218\*

(5) Made by FEAM

(15) PURPOSE OF THE ADDITION

- Application of the following standards:  
EN 60079-0 : 2006    EN 61241-0 : 2006,  
EN 60079-1 : 2007    EN 61241-1 : 2004.
- Modification of the name of the manufacturer.

PARAMETERS RELATING TO THE SAFETY

The parameters relating to the safety are unchanged.

MARKING

The marking is modified as follow:

A- Enclosure for ambient temperatures -20°C to 40°C:

F.E.A.M S.r.l  
I - 20090 Trezzano sul Naviglio (MI)  
ITALY  
EF (\*)  
INERIS 03ATEX0047X  
(Serial number)  
(Year of construction)  
⊕ II 2 GD  
Ex d IIB T5  
Ex tD A21 IP65 T100°C  
USE SCREWS WITH MINIMUM QUALITY 8.8.

**WARNINGS:** AFTER DE-ENERGIZED WAIT 20 MINUTES BEFORE OPENING.

(\*) One of the following type: EFG6 or EFG10 or EFG12 or EFSC218\*



**B- Enclosure for ambient temperatures -20°C to 55°C:**

F.E.A.M S.r.l

I - 20090 Trezzano sul Naviglio (MI)


ITALY

EF (\*)

INERIS 03ATEX0047X

(Serial number)

(Year of construction)

 II 2 GD

Ex d IIB T4

Ex tD A21 IP65 T125°C

T. amb: -20°C to +55°C

T.cable: 90°C

USE SCREWS WITH MINIMUM QUALITY 8.8.

**WARNINGS: AFTER DE-ENERGIZED WAIT 20 MINUTES BEFORE OPENING.**

**(\*) One of the following type: EFG6 or EFG10 or EFG12 or EFSC218\***

The asterisk is replaced by a number and letter corresponding to manufacturing variation.

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

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

**ROUTINE EXAMINATIONS AND TESTS**

The routine examinations and tests are modified as follow:

In accordance with clause 16.1 of EN 60079-1 standard, each sample defined above must have successfully passed before delivery, an overpressure test, of a period comprised between 10 and 60 seconds, under 9.5 bar.

**(16) DESCRIPTIVE DOCUMENTS**

The descriptive document quoted hereafter constitutes the technical documentation describing the modification of the equipment, subject of this present addition.

- Descriptive file n°02-11 rev.0 of 2011.04.28 (9 rubrics) signed on 2011.04.28

**(17) SPECIAL CONDITIONS FOR SAFE USE**

The gap and diametrical clearances are less than the values specified in the table 1 of the standard EN 60079-1.



**(18) ESSENTIAL SAFETY AND HEALTH REQUIREMENTS**

The respect of the Essential Health and Safety Requirements is completed as follows:

- Conformity to the standards quoted on page 1, clause (15).
- All provisions adopted by the manufacturer and defined in the descriptive documents.

Verneuil-en-Halatte, 2011.05.09



Director of the Certifying Body,  
By delegation  
T. HOUEIX  
Certification Officer  
Certification Division





## ADDITION

(3) INERIS 03ATEX0047X/02

(4) CONTROL AND SIGNALLING UNITS TYPE EFG6, EFG10, EFG12 and EFSC218\*

(5) Made by FEAM S.r.l.

(15) PURPOSE OF THE ADDITION

- Application of the following standards:  
EN 60079-0 : 2009 IEC 60079-0 : 2011  
EN 60079-1 : 2007 IEC 60079-1 : 2007  
EN 60079-31 : 2009 IEC 60079-31 : 2008
- Modification of the electrical parameters.
- Modification of the range of ambient temperatures.

PARAMETERS RELATING TO THE SAFETY

The parameters relating to the safety are modified as follow:

Characteristic of the signal lamps

**Incandescent lamp**

Maximum supply voltage : 240 V

Maximum power incandescent lamp : 3 W

**LED Lamp**

Maximum supply voltage : 24 V

Maximum power LED lamp : 1 W

**Neon Lamp**

Maximum supply voltage : 400 V

Maximum power LED lamp : 1 W

**Control and signalling units type EFG6, EFG10 and EFG12**

Maximum supply voltage : 600 V

**Maximum intensity:**

Push button : 10 A

Switch : 16 A

**Control and signalling units type EFSC218\***

Maximum supply voltage : 660 V

Maximum intensity : 63 A

The nominal electrical parameters, for each device, are specified on the descriptive documents.

These control and signalling units can be use in the following range ambient temperatures:

- -20°C to +40°C or -20°C to +60°C.
- -60°C to +40°C or -60°C to +60°C.

**MARKING**

The marking is modified as follows:

**A Control and signalling units for ambient 40 °C**

FEAM S.r.l

I - 20090 Trezzano Sul Naviglio (MI)

EF...(\*)

INERIS 03ATEX0047X

(Serial number)

(Year of construction)

 II 2 GD

Ex d IIB T6 Gb

Ex tb IIIC T85°C Db IP66

...°C < Tamb < ...°C (\*\*)

CABLE ENTRY : (Type and size)

**WARNINGS:**

DO NOT OPEN WHEN ENERGIZED

AFTER DE-ENERGIZING, DELAY 11 MINUTES BEFORE OPENING

- (\*) One of the following types: EFG6, or EFG120, or EFG12 or EFSC218\*  
The asterisk is replaced by a number and letter corresponding to manufacturing variation.
- (\*\*) Range of ambient temperature if different from -20°C to 40°C.

**B Control and signalling units for ambient 60 °C**

FEAM S.r.l


I - 20090 Trezzano Sul Naviglio (MI)

EF...(\*)

INERIS 03ATEX0047X

(Serial number)

(Year of construction)

 II 2 GD

Ex d IIB T5 Gb

Ex tb IIIC T100°C Db IP66

T. Cable: 90°C

...°C < Tamb < ...°C (\*\*)

CABLE ENTRY : (Type and size)

**WARNINGS:**

DO NOT OPEN WHEN ENERGIZED

AFTER DE-ENERGIZING, DELAY 11 MINUTES BEFORE OPENING

- (\*) One of the following types: EFG6, or EFG120, or EFG12 or EFSC218\*  
The asterisk is replaced by a number and letter corresponding to manufacturing variation.
- (\*\*) Range of ambient temperature if different from -20°C to 40°C.

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

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

**ROUTINE EXAMINATIONS AND TESTS**

The routine examinations and tests are modified as follow:

In accordance with clause 16.1 of EN/IEC 60079-1 standard each apparatus defined above has to have successfully passed, before delivery, an overpressure test of a period comprised between 10 and 60 seconds under:

- 9.2 bar for ambient temperature down to -20°C
- 14.9 bar for ambient temperature down to -60°C

**(16) DESCRIPTIVE DOCUMENTS**

The descriptive document quoted hereafter constitutes the technical documentation describing the modification of the equipment, subject of this present addition.

- Certification file n° 11\_221 rev.0 (11 rubrics) dated and signed on 2012.01.10



(17) **SPECIAL CONDITIONS FOR SAFE USE**

The special conditions as follows:

- The gap and diametrical clearance of the different flamepaths are less than the values specified in table of the standard EN/IEC 60079-1.
- The width of the flameproof joints is superior to the values specified in tables of the standard EN/IEC 60079-1.
- During the installation, of the equipment fitted with pilot lights, the user will take into consideration that the equipment underwent only an impact test corresponding to an energy of a low risk.

The other conditions are stipulated on the instructions.

(18) **ESSENTIAL SAFETY AND HEALTH REQUIREMENTS**

The respect of the Essential Health and Safety Requirements is completed as follows:

- Conformity to the standards indicated on page 1 paragraph 15.
- All provisions adopted by the manufacturer and defined in the descriptive documents.

Verneuil-en-Halatte, 2012.03.26



  
Director of the Certifying Body,  
By delegation  
T. HOUEIX  
Certification Officer  
Certification Division