

- (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 04ATEX0076**

- (4) Protective system or equipment :

**CONTROL AND SIGNALING UNITS Type EFSC\* or EFDC\***

- (5) Manufacturer: **FEAM**

- (6) Address: Via Mario Pagano , 3  
I - 20090 Trezzano Sul Naviglio (MI)

- (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°P49884/04.

- (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 2GD

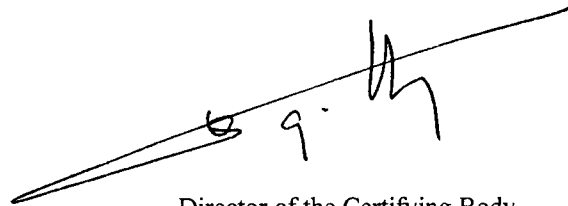
**EEx d IIC T6 or T5  
T85°C or T100°C IP66**

Verneuil-en-Halatte, 2004 12 10

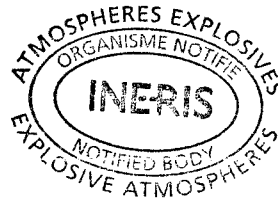


X.LEFEBVRE

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 04ATEX0076

(15) DESCRIPTION OF THE EQUIPMENT OR THE PROTECTIVE SYSTEM

The enclosure consists of a body closed by a screwed cover or by a cover fixed by screws.

The cover can be fitted with any control auxiliaries, push button and lighting.

This enclosure has the degrees of protection IP66 according to European standard EN 60 529.

PARAMETERS RELATING TO THE SAFETY

Control auxiliaries and push buttonm

Maximum supply voltage : 600 V

Maximum intensity : 10 A

Electrical equipment

Maximum supply voltage : 600 V

Maximum intensity : 16 A

Characteristic of the lighting

Maximum supply voltage : 220 V

Maximum power : 5 W

### **MARKING**

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

#### **FEAM**

I - 20090 Trezzano Sul Naviglio (MI)

#### **EFSC\* or EFDC\* (\*)**

INERIS 04ATEX0076

(Serial number)

(Year of construction)



II 2GD

EEx d IIC (\*\*)

T. (\*\*\*) IP66

T.amb. : (\*\*\*\*)

Use screws minimum quality : 8.8

DO NOT OPEN WHEN ENERGIZED

WAIT 11 MINUTES BEFORE OPENING ENCLOSURE

- (\*) The asterix is replaced by numbers and letters according to the manufacturing variations.
- (\*\*) T6 for ambient temperature of 40°C or T5 for ambient temperature of 55°C
- (\*\*\*) T85°C for ambient temperature of 40°C or T100°C for ambient temperature of 55°C
- (\*\*\*\*) -20°C to 40°C or -20°C to 55°C
- (\*\*\*\*\*) Obligatory mention only for cover fixed by screws.

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 sample of the apparatus defined above must have successfully passed before delivery an overpressure test, of a period comprised between 10 and 60 seconds under 12 bar.

### **(16) DESCRIPTIVE DOCUMENTS**

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

Certification file n°PC024 Rev.0 of 2004.10.22

This certification file dated and signed on 2004.10.22 comprised 11 headings

(17) SPECIAL CONDITIONS FOR SAFE USE

See 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 04ATEX0076/01**

(4) **CONTROL AND SIGNALLING UNITS TYPE EFSC\*or EFDC\***

(5) **Made by FEAM**

(15) **PURPOSE OF THE ADDITION**

- Application of new standards:  
EN 60079-0 : 2006    EN 60079-1 : 2007.  
EN 61241-0 : 2006    EN 61241-1 : 2004.
- Modification of the manufacturer's name.
- Mechanical modification on two enclosures.

**PARAMETERS RELATING TO THE SAFETY**

The parameters relating to the safety are modified as follow :


**Characteristic of the lights**

Maximum supply voltage : 240 V  
Maximum power : 4 W

**MARKING**


The marking is modified as follows:

**A - Control and signalling units for ambient temperature 40 °C:**

F.E.A.M S.r.l  
I - 20090 Trezzano sul Naviglio (MI)  
EFSC\* or EFDC\* (\*)  
INERIS 04ATEX0076  
(Serial number)  
(Year of construction)  
 II 2 GD  
Ex d IIC T6  
Ex tD A21 IP66 T85°C

**WARNINGS :** DO NOT OPEN WHEN ENERGIZED  
AFTER DE-ENERGIZED WAIT 11 MINUTES BEFORE OPENING  
USE SCREWS WITH MINIMUM QUALITY : 8.8 (\*\*)

**B - Control and signalling units for ambient temperature 55 °C:**

F.E.A.M S.r.l  
I - 20090 Trezzano sul Naviglio (MI)  
EFSC\* or EFDC\* (\*)  
INERIS 04ATEX0076  
(Serial number)  
(Year of construction)  
 II 2 GD  
Ex d IIC T5  
Ex tD A21 IP66 T100°C  
T. amb : -20°C +55°C

**WARNINGS :** DO NOT OPEN WHEN ENERGIZED  
AFTER DE-ENERGIZED WAIT 11 MINUTES BEFORE OPENING  
USE SCREWS WITH MINIMUM QUALITY : 8.8 (\*\*)

(\*) The asterix is replaced by numbers and letters according to the manufacturing variations.

(\*\*) Mandatory mention only for cover fixed by screws.

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 follows :

In accordance with clause 16.1 of the EN 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 12 bar.

**(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°01-10 (5 rubrics) dated and signed on 2010.02.10

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

None.

**(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, 2010 04 30



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



## ADDITION

(3) INERIS 04ATEX0076X/02

(4) CONTROL AND SIGNALLING UNITS TYPE EFSC\* or EFDC\*

(5) Made by FEAM

(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 : 240 V

Maximum power LED lamp : 1 W

**Neon Lamp**

Maximum supply voltage : 400 V

Maximum power LED lamp : 1 W

**Characteristic of the devices**

Maximum supply voltage : 600 V

Maximum intensity : 32 A

**Characteristic of the measuring devices**

Maximum supply voltage : 660 V

Maximum power analog measuring instrument : 3 VA

Maximum power digital measuring instrument : 0.5 VA

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**

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


I - 20090 Trezzano sul Naviglio (MI)

EF...(\*)

INERIS 04ATEX0076X

(Serial number)

(Year of construction)

 II 2 GD

Ex d IIC 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

(\*) The asterisk is replaced by a number and/or letter corresponding to manufacturing variation, the codification is stipulated on the descriptive documents.

(\*\*) Range of ambient temperature if different from -20°C to 40°C.

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

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


I - 20090 Trezzano sul Naviglio (MI)

EF...(\*)

INERIS 04ATEX0076X

(Serial number)

(Year of construction)

 II 2 GD

Ex d IIC 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

(\*) The asterisk is replaced by a number and/or letter corresponding to manufacturing variation, the codification is stipulated on the descriptive documents.

(\*\*) 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:

**Control and signalling unit with one space:**

- 12.6 bar for ambient temperature down to -20 °C
- 20.4 bar for ambient temperature down to -60 °C

**Control and signalling unit with two or three spaces:**

- 15.3 bar for ambient temperature down to -20 °C
- 24.8 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\_260 rev.0 (20 rubrics) dated and signed on 2011.10.20

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

The special conditions are 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

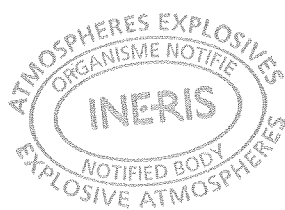
The other conditions are stipulated on the instructions.

(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



A handwritten signature in black ink, appearing to read "T. Houeix".

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