INERIS
INSTITUT NATIONAL DE L'ENVIRONNEMENT
INDUSTRIEL ET DES RISQUES

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(2) **Equipment and protection systems intended for use in potentially explosive atmospheres Directive 94/9/CE**

(1) EC-TYPE EXAMINATION CERTIFICATE

(3) Number of the EC type examination certificate: **INERIS 02ATEX0027 X**

(4) Protection apparatus or system:

CONTROL AND PROTECTION UNITS TYPES EFQL-. AND EPKZM-.

(5) Manufacturer: **ITALSMEA**

(6) Address: Via per Cernusco,15
20060 BUSSERO (MI)
ITALY

(7) This protection 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/CE 23 the Mars 1994, certifies that this protection system or equipment fulfils the Essential of Health and Safety Requirements relating to the design and construction of equipment and protection 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°35098/02.

(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
EN 50281-1-1	of September	1998

- 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 protection 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 protection system will have to contain:

Ex II 2 G D **EEx d IIB T6** **IP66 T 85°C**

Verneuil-en-Halatte, 2002 04 02

X. LEFEBVRE

Engineer at the Laboratory of Certification of Materials
ATEX

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

ATMOSPHERES EXPLOSIVES
ORGANISME NOTIFIE
INERIS
NOTIFIED BODY
EXPLOSIVE ATMOSPHERES

(13) # ANNEX

(14) EC TYPE EXAMINATION CERTIFICATE N° INERIS 02ATEX0027 X

(15) **DESCRIPTION OF THE EQUIPMENT OR THE PROTECTION SYSTEM**

Control, interruption and/or protection units protected by flameproof enclosure.

On front side, the unit can be fitted with some accessories as push-buttons, switches, potentiometers, rotary handles defined by the descriptive documents.

PARAMETERS RELATING TO THE SAFETY

For using in ambient temperatures inferior to -20°C (-30°C maxi), the manufacturing is previewed by the manufacturer under his responsability. Type test have been performed under ambient temperatures required by standards.

Maximum characteristics :

- Maximum Voltage direct current	: from 12 to 440 V
- Maximum Voltage alternate current	: from 24 to 690 V
- Frequency	: 50/60 Hz
- Dissipated power max(DC)	: ≤ 20 W
- Dissipated power max(AC)	: ≤ 20 VA
- Maximal current available in contacts	: ≤ 63 A

MARKING

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

- **ITALSMEA**
  Via per Cernusco,15
  20060 BUSSERO (MI)
  ITALY

- EFQL-. or EPKZM-. (1)
- INERIS 02ATEX0027 X
- (Serial number)
- (year of construction)
- ⟨Ex⟩ II 2 GD
- EEx d IIB T6 IP66 T85°C
- T.Amb : -30°C to 55°C
- DO NOT OPEN WHEN ENERGIZED

(1) Type is completed by numbers and/or letters corresponding to manufacturing variation.

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

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

ROUTINE EXAMINATIONS AND TESTS

Each example of the equipment hardware defined above must have successfully passed before delivery an overpressure test in accordance with section 16.1 of standard EN 50 018, of a period comprised between 10 and 60 secondes under 10.5 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 Notice TN-15-2002-01 Rev.0(10 pages) signed on 2002.01.08
- Instruction Istr-uso-manut-efql-epkzm-02E 08-01 (4 pages) dated and signed on 2002.01.08
- Drawing N° C15200200 Rev.0 dated and signed on 2002.01.08
- Drawing N° C15200201 Rev.0 dated and signed on 2002.01.08
- Drawing N° C11200001 Rev.0 dated and signed on 2000.02.02
- Drawing N° C11200003 Rev.0 dated and signed on 2000.02.02
- Drawing N° C11200004 Rev.0 dated and signed on 2000.02.02
- Drawing N° C11200006 Rev.0 dated and signed on 2000.02.02

(17) SPECIAL CONDITIONS FOR SAFE USE

Cable entries must be suitable with the type of protection used for the connection part.
The boxes are intended to be used in an ambient temperatures range of -30°C to 55°C.

For use in potentially explosive atmospheres due to combustible dust, user shall perform a regular cleaning of box in view to limit dust layers on sides.

These special conditions are defined in the instruction notice.

(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 50014, EN 50 018 and EN 50281-1-1.

- the whole of the provisions adopted by the manufacturer and described in the descriptive documents.

ADDITION

(3) INERIS 02ATEX0027X/01

(4) CONTROL AND PROTECTION UNITS TYPES EFQL-. AND EPKZM-.

(5) Made by ITALSMEA

(15) PURPOSE OF THE ADDITION

As a variation:

Up dating of descriptive documents.

Application of new standards :

EN 60079-0 : 2006 , 60079-1 : 2004,
EN 61241-0 : 2006, 61241-1 : 2004,
IEC 60079-0 : 2004, 60079-1 : 2003,
IEC 61241-0 : 2004, 61241-1 : 2004.

New address : Via Italia, 33 - 20060 GESSATE (MI) - ITALY

PARAMETERS RELATING TO THE SAFETY

The parameters relating to the safety mentionned in the basic certificate are unchanged.

MARKING

The marking defined in the basic certificate is modified as follows:

ITALSMEA
Via Italia, 33
20060 GESSATE (MI)
ITALY
Ex II 2 GD
Ex d IIB T6
Ex tD A21 IP66 / IP67 T 85°C

ROUTINE EXAMINATIONS AND TESTS

The routine examinations and tests stipulated by the basic certificate are unchanged.

(16) DESCRIPTIVE DOCUMENTS

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

- Descriptive notice TN-15-2002-01 (5 pages) rev.1 dated and signed on 2007.04.02.
- Instruction notice (3 pages) rév. 3 dated and signed on 2007.04.02

(17) SPECIAL CONDITIONS FOR SAFE USE

The special conditions defined in the basic certificate are unchanged.

(18) ESSENTIAL SAFETY AND HEALTH REQUIREMENTS

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

- Conformity to the standards EN or IEC 60079-0, EN or IEC 60079-1, EN or IEC 61241-0, EN or IEC 61241-1.
- All provisions adopted by the manufacturer and defined in the descriptive documents.

Verneuil-en-Halatte, 2007 05 11

ATMOSPHERES EXPLOSIVES ORGANISME NOTIFIE INERIS NOTIFIED BODY EXPLOSIVE ATMOSPHERES

X. LEFEBVRE

Engineer at the Laboratory of Evaluation of Equipment ATEX

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

ADDITION

(3) **INERIS 02ATEX0027X/02**

(4) **CONTROL AND PROTECTION UNITS TYPE EFQL-. AND EPKZM-.**

(5) **Made by TECHNOR ITALSMEA**

(15) **PURPOSE OF THE ADDITION**

- Application of the standards :

-	EN 60079-0 : 2009	IEC 60079-0	: 2007.
-	EN 60079-1 : 2007	IEC 60079-1	: 2007.
-	EN 60079-31 : 2009	IEC 60079-31	: 2008.

- Mechanical modifications.

PARAMETERS RELATING TO THE SAFETY

The parameters relating to the safety are unchanged.

MARKING

The marking is modified as follow :

TECHNOR ITALSMEA
I-20060 GESSATE
ITALY
EFQL... or EPKZM...
INERIS 02ATEX0027X
(Serial number)
(Year of construction)

Ⓔx II 2 GD
Ex d IIB T6 Gb
and / or
Ex tb IIIC T85°C Db IP66 / IP67
T.amb : **(*)**

WARNING: DO NOT OPEN WHEN ENERGIZED

CABLE ENTRIES : SEE INSTRUCTIONS

(*) -30°C to 55°C if different from 20°C to +40°C

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:

- under 10,5 bar for minimum ambient temperature of -20°C, except the smallest size of type EFQL- (EFQL3),
- under 14,4 bar for minimum ambient temperature of -30°C for all sizes.

In accordance with clause 16.2 of the EN 60079-1 standard, the smallest size of type EFQL- (EFQL3) is exempted of routine test, for Tamb -20°C, in owing to the fact that it has undergone a static type test at 4 times the reference pressure under 28 bar.

(16) DESCRIPTIVE DOCUMENTS

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

- TECHNICAL NOTE N°TN1210 REV. 0 (4 pages + 4 drawings) signed on 2012.09.19
- INSTRUCTION NOTE N°TN1210 Annex A, REV. A signed on 2012.09.19

(17) SPECIAL CONDITIONS FOR SAFE USE

The special conditions for safe use are modified as follow:

- The length of flameproof joints is more than the values specified in the tables of the standard EN 60079-1.
- The gap of the flameproof joints is less than the values specified in the tables of the standard EN 60079-1.
- The yield stress of the screws used for the enclosure / lid fastening must be ≥ 450 N/mm² and the tensile strength must be ≥ 700 N/mm².

(18) ESSENTIAL SAFETY AND HEALTH REQUIREMENTS

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

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

Verneuil-en-Halatte, 2013 02 21

The Chief Executive Officer of INERIS
By delegation
T.HOUEIX
Ex Certification Officer