

(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 03ATEX0048**

(4) Protective system or equipment :

JUNCTION BOX TYPE GUA.. or S.. or EAHF...

(The points are replaced by letters and numbers 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 23rd 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°16045/03.

(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

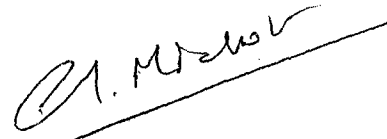
EEx d IIC T6 T85°C IP65

Verneuil-en-Halatte, 2003 11 03

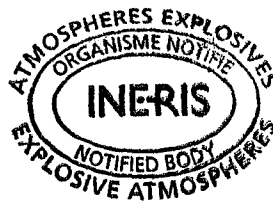


C.PETITFRERE

Engineer at the Laboratory of Certification of ATEX
Equipment



Director of the Certifying Body,
By delegation
C. MICHOT
Certification Manager



(13)

ANNEX

(14) EC TYPE EXAMINATION CERTIFICATE N°INERIS 03ATEX0048

(15) DESCRIPTION OF THE EQUIPMENT OR THE PROTECTIVE SYSTEM

This enclosure made in light alloy consists of a body closed by a screwed cover.

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

PARAMETERS RELATING TO THE SAFETY

Maximum supply voltage : 500 V


Intensity : from 2,3 A/mm² to 5 A/mm² according to the size of the box and the section of the terminals.

MARKING

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

FEAM
20090 Trezzano Sul Naviglio (MI)
ITALY

(*)
INERIS 03ATEX0048
(serial number)
(Year of construction)

 II 2 GD
EEx d IIC T6
T85°C IP65
DO NOT OPEN WHILE ENERGIZED.

(*) GUA14 or GUA26 or GUA36 or GUA59 or GUA69 or EAHFT26 or S14 or S24 or S26 or S36 or S59 or S69 or GUAJ-36NP

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 16.2 of standard EN 50 018, the apparatus defined above is exempted of routine test in view of the fact that it has undergone a static type test at 4 times the reference pressure under 26,5 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-027/ATEX rev.1 of 2003.07.01 (5 pages)
- Instructions n° IU027/ATEX rev.0 of 2003.07.01 (2 pages)
- Drawing n° AC027/ATEX folio 1 rev.1 of 2003.07.01
- Drawing n° AC018/ATEX folio 2 of 2003.07.01
- Drawing n° AC018/ATEX folio 3 of 2003.07.01

These documents were signed on 2003.07.28

(17) SPECIAL CONDITIONS FOR SAFE USE

Néant.

(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 03ATEX0048/01
- (4) JUNCTION BOX TYPE GUA... or S... or EAHF...
- (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
- Introduction of protection degree IPX6 according to EN 60529.
- Modification of the name of the manufacturer.
- Possibility to use the boxes at ambient -60°C.
- Add of new junction boxes types GUA17, GUA27, GUA37 and GUA47.

PARAMETERS RELATING TO THE SAFETY

The parameters relating to the safety are unchanged.

MARKING

The marking is modified as follow:

F.E.A.M S.r.l
I - 20090 Trezzano sul Naviglio (MI)
GUA... or S... or EAHF...(*)
INERIS 03ATEX0048
(Serial number)
(Year of construction)
 II 2 GD
Ex d IIC T (**)
Ex tD A21 IP66 T(**)
T. amb : (**)
T. cable: (**)

WARNING : DO NOT OPEN WHEN ENERGIZED

(*) Type is completed by numbers and/or letters corresponding to manufacturing variations.

(**) See table below.

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.

Range of ambient temperature	Temperature class		Cable temperature
	Gas	Dust	
-20°C to 40°C or -60°C to 40°C	T6	T85°C	N/C
-20°C to 130°C or -60°C to 130°C	T3	T150°C	150°C

ROUTINE EXAMINATIONS AND TESTS

The routine examinations and tests are modified as follow:

In accordance with clause 16.2 of the EN 60079-1 standard, the equipment defined above is exempted of routine test in owing to the fact that it has undergone a static type test at 4 times the reference pressure under 36.3 bar.

(16) DESCRIPTIVE DOCUMENTS

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

Descriptive file n°05-10 (5 rubrics)

signed on 2011.01.18

(17) SPECIAL CONDITIONS FOR SAFE USE

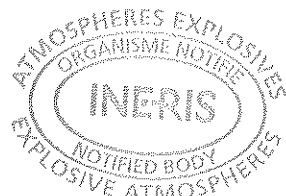
None.

(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, 2011.02.18



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

ADDITION

(3) INERIS 03ATEX0048/02

(4) TERMINAL BOARDS BOXES TYPE GUA... or S... or EAHF...

(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 range of ambient temperatures.
- 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:


Terminal boards boxes for ambient +55 °C

FEAM

I - 20090 Trezzano Sul Naviglio (MI)

GUA... or S... or EAHF...(*)

INERIS 03ATEX0048X

 II 2 G D

(Serial number)

(Year of construction)

Ex d IIC T6 Gb

Ex tb IIIC T85°C DbIP66

... °C < Tamb < ... °C (**)

CABLE ENTRY : (Type and size)

WARNING: DO NOT OPEN WHEN ENERGIZED

(*) Type is completed by numbers and/or letters corresponding to manufacturing variations.

(**) Range of temperature ambient -20°C to 55°C or -60°C to +55°C.


Terminal boards boxes for ambient +130 °C

FEAM

I - 20090 Trezzano Sul Naviglio (MI)

GUA... or S... or EAHF...(*)

INERIS 03ATEX0048X

 II 2 G D

(Serial number)

(Year of construction)

Ex d IIC T3 Gb

Ex tb IIIC T150°C Db IP66

... °C < Tamb < ... °C (**)

T. Cable: 150°C

CABLE ENTRY: (Type and size)

WARNING: DO NOT OPEN WHEN ENERGIZED

(*) Type is completed by numbers and/or letters corresponding to manufacturing variations.

(**) Range of temperature ambient -20°C to +130°C or -60°C to +130°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:

For the light alloy version for ambient -60°C except for sizes 37, 47, 59, 69 and type EAHF:

In accordance with clause 16.2 of the EN/IEC 60079-1 standard, the equipment defined above is exempted of routine test in view to the fact that it has undergone a static type test at 4 times the reference pressure under 55 bar.

For the light alloy version for ambient -20°C:

In accordance with clause 16.2 of the EN/IEC 60079-1 standard, the equipment defined above is exempted of routine test in view to the fact that it has undergone a static type test at 4 times the reference pressure under 34 bar.

For the light alloy version for ambient -60°C for sizes 37, 47, 59, 69 and type EAHF:

In accordance with clause 16.1 of the 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 20.7 bar.

For the stainless steel version for all sizes:

In accordance with clause 16.1 of the 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:

- 12.8 bar for ambient down to -20°C
- 20.7 bar for ambient down to -60°C.

(16) DESCRIPTIVE DOCUMENTS

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

Descriptive file n° 12-212 rev.0 (7 rubrics)

dated and signed on 2012.01.18

(17) SPECIAL CONDITIONS FOR SAFE USE

The special conditions as follows:

The width of the different flameproof joints is superior to the values specified in tables of the standard EN/IEC 60079-1.

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

Verneuil-en-Halatte, 2012 07 06


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

ADDITION

(3) INERIS 03ATEX0048X/03

(4) JUNCTION BOXES TYPE GUA... or S... or EAHF...

(5) Made by FEAM

(15) PURPOSE OF THE ADDITION

- Introduction of the type of protection “Ex e” for gas application.
- Possibility to install components different to terminal block for the version using the type of protection “Ex d”.
- Application of the following standard :
EN 60079-7 : 2007
EN 60079-31 : 2014
- Introduction of new accessories covered by separated component certificates intended to be mounted on the enclosures for all types of protection.
- Introduction of special conditions of use: “X” added to the EC-type examination certificate number.

PARAMETERS RELATING TO THE SAFETY

The parameters relating to the safety are modified as follows:

For enclosures with type of protection “Ex d” and “Ex “tb”:

Maximum supply voltage	: 750 Vac or Vdc
Maximum current	: 40 A
Rated frequency	: 0/50/60 Hz

These enclosures can be use in the following range ambient temperatures:

- From -20°C up to +60°C or up to +80°C or up to +130°C.
- From -60°C up to +60°C or up to +80°C or up to +130°C.

The maximum dissipated powers are defined in the following table :

Ambient temperatures	Temperature classes	Maximum dissipated power in accordance with the free internal volume of the enclosures					T _{cable}
		Volume <140±10% cm ³	Volume <290±10% cm ³	Volume <560±10% (cm ³)	Volume <650±10% (cm ³)	Volume <1380±10% (cm ³)	
60°C	T6/T85°C	2 W	4 W	6 W	7 W	12 W	N/A
60°C	T4/T135°C	9 W	15 W	22 W	23 W	43 W	130°C
80°C	T4/T135°C	6 W	11 W	16 W	17 W	31 W	
60°C	T3/T200°C	17 W	29 W	43 W	45 W	83 W	190°C
80°C	T3/T200°C	15 W	24 W	37 W	39 W	71 W	
130°C	T3/T200°C	8 W	14 W	21 W	22 W	40 W	

For enclosures with type of protection “Ex e” and “Ex “tb” (when using terminals only):

Maximum supply voltage : 750 Vac or Vdc

Maximum Current : 40 A (or lower in the accordance with the wiring section specified in the descriptive documents).

The maximum number of the terminals and the permissible rated current depend of the size of the enclosure, the wiring section, the range of ambient temperature and the temperature class. These parameters are described on the descriptive documents.

In accordance with the maximum numbers of terminals and the maximum currents specified in the descriptive documents, these enclosures can be used in the following range ambient temperatures and temperature classes:

- T5/T100°C for ambient temperature from -60°C or -20°C up to +60°C
- T4/T135°C for ambient temperature from -60°C or -20°C up to +80°C (T_{cable}=110°C)
- T3/T200°C for ambient temperature from -60°C or -20°C up to +130°C (T_{cable}=160°C)

Using of equipments covered by a separated component certificates:

For “Ex e” version, the list of ATEX component certificates of terminals that could be mounted inside the enclosure and the statement of the assessments regarding the older editions of the standard are detailed in the descriptive document of the manufacturer.

The following table specifies the list of ATEX certificates of components that could be mounted on the enclosure and the statement of the assessments regarding the older editions of the standard (For “Ex d” or “Ex e” or “Ex tb”):

Manufacturer	Type operating device	Code	ATEX Certificate number	Statement of the older editions of the standard
NUOVA ASP	Operators (2)	EFI, EFP**, EFL*PC*...	INERIS 13ATEX9016U	(1)
FEAM	Operators(2)	EFI, EFP**, EFL*PC*...	INERIS 13ATEX9017U	(1)
NUOVA ASP	Breathing and draining valve (2)	ECD***	EXA14ATEX0058U	(1)
FENEX	Breathing and draining valve (2)	ECD***	EXA 14ATEX0063U	(1)
FEAM	Breathing and draining valve (2)	ECD***	EXA14ATEX0059U	(1)

(1) : Certified in accordance with the latest editions of the standard.

(2) : The restrictions of uses are specified in the descriptive documents of the manufacturer.

MARKING

The marking is modified as follows:


Marking for “Ex d” and “Ex tb” version :

FEAM

I - 20090 Trezzano Sul Naviglio (MI)

GUA... or S... or EAHF...(*)

INERIS 03ATEX0048X

 II 2 G D

(Serial number)

(Year of construction)

Ex d IIC T(**) Gb

Ex tb IIIC T(**) Db IP66

T. Cable : (**)

...°C < Tamb < ...°C (***)

CABLE ENTRY : (Type and size)

WARNING: DO NOT OPEN IF AN EXPLOSIVE ATMOSPHERE MAY BE PRESENT

(*) Type is completed by numbers and/or letters corresponding to manufacturing variations.

(**) Tcable and Temperature classes in accordance with the maximum dissipated power specified in the clause “PARAMETERS RELATING TO THE SAFETY”

(***) Range of temperature ambient from -20°C or -60°C to +60°C or +80°C or +130°C.


Marking for “Ex e” and “Ex tb” version :

FEAM

I - 20090 Trezzano Sul Naviglio (MI)

GUA... or S... or EAHF...(*)

INERIS 03ATEX0048X

 II 2 G D

(Serial number)

(Year of construction)

Ex e IIC T(**) Gb

Ex tb IIIC T(**) Db IP66

T. Cable : (**)

...°C < Tamb < ...°C (***)

CABLE ENTRY : (Type and size)

(Rated voltage and rated current and/or rated power)

WARNING: DO NOT OPEN WHEN ENERGIZED

(*) Type is completed by numbers and/or letters corresponding to manufacturing variations.

(**) Tcable and Temperature classes in accordance with the maximum dissipated power specified in the clause “PARAMETERS RELATING TO THE SAFETY”

(***) Range of temperature ambient from -20° C or -60° C to +60° C or +80° C or +130° 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 follows:

For “Ex d” version:

For the light alloy version for ambient -60° C except for sizes 37, 47, 59, 69 and type EAHF:

In accordance with clause 16.2 of the EN 60079-1 standard, the equipment defined above is exempted of routine test in view to the fact that it has undergone a static type test at 4 times the reference pressure under 55 bar.

For the light alloy version for ambient -20° C:

In accordance with clause 16.2 of the EN 60079-1 standard, the equipment defined above is exempted of routine test in view to the fact that it has undergone a static type test at 4 times the reference pressure under 34 bar.

For the light alloy version for ambient -60° C for sizes 37, 47, 59, 69 and type EAHF:

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 20.7 bar.

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

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

- Conformity to the following standard:
 - EN 60079-0 : 2012/A11:2013
 - EN 60079-1 : 2007
 - EN 60079-7 : 2007
 - EN 60079-31 : 2014

- All provisions adopted by the manufacturer and defined in the descriptive documents.

Verneuil-en-Halatte, 2015.07.08



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



- 2 Appareil ou système de protection destiné à être utilisé en atmosphères explosibles
Equipment and protective systems intended for use in potentially explosive atmospheres

Directive 2014/34/UE
Directive 2014/34/EU

1 **ATTESTATION D'EXAMEN UE DE TYPE**
EU-TYPE EXAMINATION CERTIFICATE

- 3 Numéro de l'attestation d'examen UE de type / *Number of the EU-Type Examination Certificate*

INERIS 03ATEX0048X

INDICE / *ISSUE* : 04

- 4 Appareil ou système de protection / *Equipment or protective system:*

BOITIERS DE RACCORDEMENT TYPE GUA... ou S... ou EAHF...
JUNCTION BOXES TYPE GUA... or S... or EAHF...

- 5 Fabricant / *Manufacturer:*

FEAM

- 6 Adresse / *Address :*

Via Mario Pagano, 3
Italy - 20090 Trezzano sul Naviglio (MI)

- 7 Cet appareil ou système de protection et toute autre variante acceptable de celui-ci sont décrits dans l'annexe de la présente attestation et dans les documents descriptifs cités dans cette annexe.

This equipment or protective system and any acceptable variation thereto is specified in the Annex of this certificate and the descriptive documents therein referred to.

- 8 L'INERIS, organisme notifié et identifié sous le numéro 0080, conformément aux articles 17 and 21 de la directive 2014/34/UE du Parlement Européen et du Conseil, datée du 26 février 2014, et accrédité par le COFRAC sous le n° 5-0045 dans le cadre de l'activité de certification de produits et services (portée disponible sur www.cofrac.fr) certifie que cet appareil ou système de protection répond aux Exigences Essentielles de Sécurité et de Santé en ce qui concerne la conception et la construction des appareils et des systèmes de protection destinés à être utilisés en atmosphères explosibles, décrites en annexe II de la Directive.

INERIS, notified body and identified under number 0080, in accordance with Articles 17 and 21 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, and accredited by COFRAC under number 5-0045 for certification of products and services (scope of accreditation available on the website www.cofrac.fr), certifies that this equipment or protective system fulfils the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres given in Annex II to the Directive.

Les procédures de certification sont disponibles sur www.ineris.fr.


The rules of certification are available on INERIS website on: www.ineris.fr.

Les examens et les essais sont consignés dans le rapport :

The examinations and the tests are recorded in report:

N° 032956.

- 9 Le respect des Exigences Essentielles de Sécurité et de Santé est assuré par :
The respect of the Essential Health and Safety Requirements has been assured by:
- la conformité à / *Conformity with:*
EN 60079-0 : 2012 / A11 : 2013
EN 60079-1 : 2014
EN 60079-7 : 2015
EN 60079-31: 2014
 - les solutions spécifiques adoptées par le fabricant pour satisfaire aux Exigences Essentielles de Sécurité et de Santé décrites dans les documents descriptifs /
Specific solutions adopted by the manufacturer to meet the Essential Health and Safety Requirements described in the descriptive documents
- 10 Si le signe X est placé à la suite du numéro de l'attestation d'examen UE de type, il indique que cet appareil ou système de protection est soumis à des conditions spéciales d'utilisation, mentionnées dans l'annexe de la présente attestation.
If the sign X is placed after the Number of the EU type examination certificate, it indicates that this equipment and protective system is subject to the Specific Conditions of Use, mentioned in the annex of this certificate.
- 11 Cette attestation d'examen UE de type se rapporte uniquement à la conception, aux examens et essais de l'appareil ou système de protection spécifié conformément à la directive 2014/34/UE. D'autres exigences de cette Directive s'appliquent à la fabrication et à la fourniture de cet appareil ou système de protection, celles-ci ne sont pas couvertes par cette attestation.
This EU-Type Examination Certificate relates only to the design, examinations and tests of the specified equipment or protective system in accordance to the Directive 2014/34/EU. 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 Le marquage de l'appareil ou du système de protection doit contenir :
The marking of the equipment or the protective system shall include the following:

 II 2 GD

Verneuil-en-Halatte, 2018 03 06

Le Directeur Général de l'INERIS
Par délégation
*The Chief Executive Officer of INERIS
By delegation*



Olivier COTTIN
Responsable de l'Unité EQEN
Head of Equipment
and Corporate Services Unit

13 ANNEXE

15 DESCRIPTION DE L'APPAREIL OU DU SYSTEME DE PROTECTION :

Les coffrets réalisés en alliage léger ou en acier inoxydable ou en fonte sont couverts par le certificat composant INERIS 10ATEX9005U.

Pour les versions « Ex db » et « Ex tb », les coffrets sont destinés à recevoir des bornes et/ou d'autres types d'équipements électriques.

Pour les versions « Ex eb », les coffrets sont destinés à recevoir des bornes couvertes par des certificats de composant ATEX. La liste de ces composants est définie dans le tableau à la fin de ce document. Des bornes alternatives couvertes par un certificat de composant peuvent être utilisées si elles sont adaptées par rapport aux paramètres pertinents spécifiés dans les documents descriptifs du fabricant.

Les coffrets peuvent aussi être équipés d'accessoires (opérateurs, valves) couvert par les certificats de composant listés dans le tableau à la fin de ce document.

L'enveloppe présente les degrés de protection IP66 selon la norme européenne EN 60529.

PARAMETRES RELATIFS A LA SECURITE :

Pour les coffrets protégés en «Ex eb» ou «Ex tb» (avec bornes de raccordement uniquement) :

Tension maximale d'alimentation : 750 Vac ou Vdc

Courant maximum : 40 A (ou moins selon la section des conducteurs en accord avec la documentation descriptive).

Le nombre maximal des bornes et l'intensité assignée dépendent de la taille du coffret, de la section des conducteurs, de la gamme de températures ambiantes et de la classe de température. Ces différents paramètres sont définis dans les documents descriptifs.

Avec accord avec le nombre de maximum de bornes et le courant maximal spécifié dans la documentation, les coffrets peuvent être utilisés dans les gammes de

13 ANNEX

15 DESCRIPTION OF THE EQUIPMENT OR THE PROTECTIVE SYSTEM :

These enclosures made in light alloy or stainless steel or cast iron are covered by the component certificate INERIS 10ATEX9005U.

For the version "Ex db" and "Ex tb", these enclosures are intended to receive terminals and/or other types of electrical equipments.

For the version protected by increased safety "Ex eb", these enclosures are intended to receive terminals covered by ATEX component certificates. The list of these components is defined in the table at the end of this document. Alternative terminals covered by component certificates could be used if they are suitable with the relevant parameters specified in the descriptive documents of the manufacturer.

The enclosures could be also fitted with accessories (operators, valves) covered by the component certificates listed in the Annex.

These enclosures get the degrees of protection IP66 in accordance with EN 60529 standard.

PARAMETERS RELATING TO THE SAFETY :

For enclosures with type of protection "Ex eb" and "Ex tb" (when using terminals only):

Maximum supply voltage : 750 Vac or Vdc

Maximum Current : 40 A (or lower in the accordance with the wiring section specified in the descriptive documents).

The maximum number of the terminals and the permissible rated current depend of the size of the enclosure, the wiring section, the range of ambient temperature and the temperature class. These parameters are described on the descriptive documents.

In accordance with the maximum numbers of terminals and the maximum currents specified in the descriptive

températures ambiantes et classes de température suivante :

- T5/T100°C pour une température ambiante de -60°C ou -20°C à +60°C
- T4/T135°C pour une température ambiante -60°C ou -20°C à +80°C (Tcable=110°C)
- T3/T200°C pour une température ambiante -60°C ou -20°C à +130°C (Tcable=160°C)

Pour les coffrets protégés par "Ex db" ou Ex tb" :

Tension maximale d'alimentation : 750 Vac ou Vdc
 Courant maximum : 40 A
 Gamme de fréquence : 0/50/60 Hz

Les coffrets peuvent être utilisés dans les gammes de températures ambiantes suivantes :

- De -20°C jusqu'à +60°C ou jusqu'à +80°C ou jusqu'à +130°C.
- De -60°C jusqu'à +60°C ou jusqu'à +80°C ou jusqu'à +130°C.

Les puissances maximales dissipées sont définies dans le tableau ci-dessous :

documents, these enclosures can be used in the following range ambient temperatures and temperature classes:

- T5/T100°C for ambient temperature from -60°C or -20°C up to +60°C
- T4/T135°C for ambient temperature from -60°C or -20°C up to +80°C (Tcable=110°C)
- T3/T200°C for ambient temperature from -60°C or -20°C up to +130°C (Tcable=160°C)

For enclosures with type of protection "Ex db" and "Ex tb":

Maximum supply voltage : 750Vac or Vdc
 Maximum current : 40 A
 Rated frequency : 0/50/60 Hz

These enclosures can be use in the following range ambient temperatures:

- From -20°C up to +60°C or up to +80°C or up to +130°C.
- From -60°C up to +60°C or up to +80°C or up to +130°C.

The maximum dissipated powers are defined in the following table:

Températures ambiantes / Ambient temperatures	Classes de températures / Temperature classes	Puissance maximale dissipée selon le volume libre dans le coffret / Maximum dissipated power in accordance with the free internal volume of the enclosures					Tcable
		Volume <140±10% cm3	Volume <290±10% cm3	Volume <560±10% (cm3)	Volume <650±10% (cm3)	Volume <1380±10% (cm3)	
60°C	T6/T85°C	2 W	4 W	6 W	7 W	12 W	N/A
60°C	T5/T100°C	4 W	7 W	11 W	12 W	21 W	95°C
60°C	T4/T135°C	9 W	15 W	22 W	23 W	43 W	130°C
80°C	T4/T135°C	6 W	11 W	16 W	17 W	31 W	
60°C	T3/T200°C	17 W	29 W	43 W	45 W	83 W	190°C
80°C	T3/T200°C	15 W	24 W	37 W	39 W	71 W	
130°C	T3/T200°C	8 W	14 W	21 W	22 W	40 W	

MARQUAGE :

Le marquage doit être lisible et indélébile ; il doit comporter les indications suivantes :

Marquage pour les versions « Ex db » et « Ex tb » :

FEAM
 I - 20090 Trezzano sul Naviglio (MI)
 GUA... ou S... ou EAHF...(*)
 INERIS 03ATEX0048X
 (Numéro de série)
 (Année de construction)
 Ex II 2 G D
 Ex db IIC T(**) Gb
 Ex tb IIIC T(**) Db IP66
 T. Câble : (**)
 ...°C < Tamb < ...°C (***)
 ENTRÉES DE CABLES : (Type et dimension)
AVERTISSEMENT : NE PAS OUVRIR SI UNE ATMOSPHERE EXPLOSIVE PEUT ETRE PRESENTE

MARKING :

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


Marking for "Ex db" and "Ex tb" version :

FEAM
 I - 20090 Trezzano sul Naviglio (MI)
 GUA... or S... or EAHF...(*)
 INERIS 03ATEX0048X
 (Serial number)
 (Year of Construction)
 Ex II 2 G D
 Ex db IIC T(**) Gb
 Ex tb IIIC T(**) Db IP66
 T. Cable : (**)
 ...°C < Tamb < ...°C (***)
 CABLE ENTRY : (Type and size)
WARNING: DO NOT OPEN IF AN EXPLOSIVE ATMOSPHERE MAY BE PRESENT

- (*) Le type est complété par une lettre et des chiffres correspondant aux variantes d'exécution.
- (**) Tcâble et classe de température en fonction de la puissance dissipée spécifiée dans la clause « PARAMETRES RELATIFS A LA SECURITE »
- (***) Gamme de température ambiante de -20°C ou -60°C à +60°C ou +80°C ou +130°C.

- (*) Type is completed by numbers and/or letters corresponding to manufacturing variations.
- (**) Tcable and Temperature classes in accordance with the maximum dissipated power specified in the clause "PARAMETERS RELATING TO THE SAFETY"
- (***) Range of temperature ambient from -20°C or -60°C to +60°C or +80°C or +130°C.

Marquage pour les versions « Ex eb » et « Ex tb » :

FEAM
 I - 20090 Trezzano sul Naviglio (MI)
 GUA... ou S... ou EAHF...(*)
 INERIS 03ATEX0048X
 (Numéro de série)
 (Année de construction)
 II 2 G D
 Ex eb IIC T(**) Gb
 Ex tb IIIC T(**) Db IP66
 T. Câble : (**)
 ...°C < Tamb < ...°C (***)
 ENTRÉES DE CABLES : (Type et dimension)
 (Tension et courant et/ou puissance assignés)

AVERTISSEMENT : NE PAS OUVRIR SOUS TENSION

- (*) Le type est complété par une lettre et des chiffres correspondant aux variantes d'exécution.
- (**) Tcâble et classe de température en fonction de la puissance dissipée spécifiée dans la clause « PARAMETRES RELATIFS A LA SECURITE »
- (***) Gamme de température ambiante de -20°C ou -60°C à +60°C ou +80°C ou +130°C.

L'ensemble du marquage peut être réalisé dans la langue du pays d'utilisation.

L'appareil ou le système de protection doit aussi porter le marquage normalement prévu par les normes de construction qui le concernent.

EXAMENS ET ESSAIS INDIVIDUELS :


Pour les versions « Ex db » :

Néant, couverts par le certificat de composant INERIS 10ATEX9005U des coffrets

Pour les versions « Ex tb » :

Conformément au § 7.1 de la norme EN 60079-7, une épreuve de rigidité diélectrique, effectuée selon les normes appropriées, sur chacun des différents circuits du matériel, la tension d'épreuve étant appliquée pendant une minute.

Marking for "Ex eb" and "Ex tb" version :

FEAM
 I - 20090 Trezzano sul Naviglio (MI)
 GUA... or S... or EAHF...(*)
 INERIS 03ATEX0048X
 (Serial number)
 (Year of Construction)
 II 2 G D
 Ex eb IIC T(**) Gb
 Ex tb IIIC T(**) Db IP66
 T. Cable : (**)
 ...°C < Tamb < ...°C (***)

CABLE ENTRY : (Type and size)
 (Rated voltage and rated current and/or rated power)

WARNING: DO NOT OPEN WHEN ENERGIZED

- (*) Type is completed by numbers and/or letters corresponding to manufacturing variations.
- (**) Tcable and Temperature classes in accordance with the maximum dissipated power specified in the clause "PARAMETERS RELATING TO THE SAFETY"
- (***) Range of temperature ambient from -20°C or -60°C to +60°C or +80°C or +130°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 :

For the "Ex db" versions:

None, covered by the component certificate INERIS 10ATEX9005U of the enclosures

For the "Ex eb" versions:

In accordance with clause 7.1 of the EN 60079-7 standard, 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.

16 DOCUMENTS DESCRIPTIFS :

Les documents descriptifs cités ci-après, constituent la documentation technique de l'appareil, objet de la présente attestation.

Titre / Title	Réf. / Ref.	Rév. / Rev.	Date / Date
Certification file (7 rubrics)	12-212	2	2017.04.05

17 CONDITIONS SPECIALES D'UTILISATION :

Selon les normes EN 60079-0, EN 60079-1, EN 60079-7 et EN 60079-31:

- Lors de l'installation l'utilisateur devra tenir compte du fait que le voyant type EFL*PC*_n'a subi qu'un choc mécanique faible à 2J dans le cas où ce composant est monté sur le coffret.

Selon la norme EN 60079-1 :

- La longueur des joints antidéflagrants est supérieure à la valeur spécifiée dans les tableaux de la norme EN 60079-1. Contacter le fabricant pour toutes réparations.

Les autres conditions d'utilisation sont définies dans la notice d'instructions.

18 EXIGENCES ESSENTIELLES DE SECURITE ET DE SANTE :

Le respect des Exigences Essentielles de Sécurité et de Santé est assuré par :

- La conformité aux normes listées au paragraphe (9).
- L'ensemble des dispositions adoptées par le constructeur et décrites dans les documents descriptifs.

19 REMARQUES :

Les indices 00 à 03 font référence à l'attestation d'examen CE de type n° INERIS 03ATEX0048X et ses compléments émis précédemment conformément à la directive 94/9/CE.

Les modifications de l'indice 04 concernent :

- L'introduction de la fonte comme matériau
- Application des normes EN 60079-1 : 2014 et EN 60079-7 : 2015
- Application de la directive 2014/34/UE

16 DESCRIPTIVE DOCUMENTS :

The descriptive documents quoted hereafter constitute the technical documentation of the equipment, subject of this certificate.

17 SPECIFIC CONDITIONS OF USE :

In accordance with the standards EN 60079-0, EN 60079-1, EN 60079-7 and EN 60079-31:

- *During the installation, the user will take into consideration that pilot light type EFL*PC* underwent only a shock corresponding to an energy of a low risk at 2J in case of this component is fitted on the enclosure.*

In accordance with the standard EN 60079-1:

- *The width of the flameproof joints is superior to that specified in the tables of the EN 60079-1 standard. For any repair to contact the manufacturer.*

The other conditions of use are stipulated in the instructions.

18 ESSENTIAL HEALTH AND SAFETY REQUIREMENTS :

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

- *Conformity to the standards quoted in clause (9).*
- *All provisions adopted by the manufacturer and defined in the descriptive documents.*

19 REMARKS :

The issues 00 à 03 refer to the EC-type examination certificate N° INERIS 03ATEX0048X and its additions issued previously according to the Directive 94/9/EC.

The changes of the issue 04 are regarding:

- *Introduction of cast iron material*
- *Application of the standards EN 60079-1 : 2014 and EN 60079-7 : 2015*
- *Application of the new directive 2014/34/EU*

TABLEAUX / TABLES

Liste des certificats de composant des bornes pouvant être installées à l'intérieur des coffrets ainsi que l'évaluation en rapport avec les éditions de normes précédentes (requis pour la version « Ex eb »)

List of ATEX component certificates of terminals that could be mounted inside the enclosure and statement of the assessments regarding the older editions of the standard (only required for "Ex eb" version):

Fabricant / Manufacturer	Type d'équipements / Type operating device	Références / Code	Numéro de certificat ATEX / ATEX Certificate number	Etat par rapport aux éditions de normes précédentes / Statement of the older editions of the standard
ABB-Entrelec	Bornes / Terminals	ZS** - ZS**-PE	LCIE 08ATEX0007 U	(1)
Cabur	Bornes / Terminals	CBC**	CESI 08ATEX061U	(1)
Cabur	Bornes / Terminals	CBD.**	CESI 01ATEX090U	(1)
Cabur	Bornes / Terminals	TEO.* - TED.* - TE.*/*	CESI 02 ATEX 061 U	(1)
Cabur	Bornes / Terminals	TC/DIN - TC/PO	CESI 02ATEX 134U	(1)
Phoenix	Bornes / Terminals	MBK 2.5/E	KEMA03ATEX2380U	(1)
Phoenix	Bornes / Terminals	QTC 1.5 - QTC 1.5-PE	KEMA03ATEX2557U	(1)
Phoenix	Bornes / Terminals	QTC 2.5 - QTC 2.5-PE	KEMA05ATEX2148U	(1)
Phoenix	Bornes / Terminals	ST 1.5 - ST 1.5-PE	KEMA01ATEX2129U	(1)
Phoenix	Bornes / Terminals	ST 2.5 - ST 2.5-PE	KEMA00ATEX2052U	(1)
Phoenix	Bornes / Terminals	ST 4 - ST 6 - ST 4-PE - ST 6-PE	KEMA00ATEX2129U	(1)
Phoenix	Bornes / Terminals	ST 10 - ST 16 - ST 35 - ST 10-PE - ST 16-PE - ST 35-PE	KEMA01ATEX2260U	(1)
Phoenix	Bornes / Terminals	UK 1.5N - UK 3N - UK 5N - UK 6N	KEMA98ATEX1651U	(1)
Phoenix	Bornes / Terminals	UK 2.5N	KEMA06ATEX0119U	(1)
Phoenix	Bornes / Terminals	UK 10N - UK 16N - UK 35 - UKH 50 - UKH 95	KEMA98ATEX1786U	(1)
Phoenix	Bornes / Terminals	USLKG 1.5N - USLKG 5 - USLKG 10N - USLKG16N - USLKG 50 - USLKG 95	KEMA99ATEX4487U	(1)
Phoenix	Bornes / Terminals	USLKG 2.5N - USLKG 6N	KEMA96ATEX4370U	(1)
Phoenix	Bornes / Terminals	USLKG 3	KEMA97ATEX1622U	(1)
Phoenix	Bornes / Terminals	USLKG 35	KEMA01ATEX2046U	(1)
Phoenix	Bornes / Terminals	UT ** - UT **-PE	KEMA04ATEX2048U	(1)
Phoenix	Bornes / Terminals	SSK **** Ker -Ex	KEMA03ATEX2382U	(1)
Weidmuller	Bornes / Terminals	AKZ ** - AKE **	SIRA 02ATEX3001U	(1)
Weidmuller	Bornes / Terminals	BK 2...12	SIRA 01ATEX3247U	(1)
Weidmuller	Bornes / Terminals	EK ** - SAK **/EN	KEMA97ATEX1798U	(1)
Weidmuller	Bornes / Terminals	SAKK 4 - SAKK10	SIRA 03ATEX3425U	(1)
Weidmuller	Bornes / Terminals	ZDU 1.5/**** - ZPE 1.5/****	KEMA01ATEX2106U	(1)

Fabricant / Manufacturer	Type d'équipements / Type operating device	Références / Code	Numéro de certificat ATEX / ATEX Certificate number	Etat par rapport aux éditions de normes précédentes / Statement of the older editions of the standard
Weidmuller	Bornes / Terminals	ZDU 2.5N*** - ZPE 2.5N***	KEMA06ATEX0271U	(1)
Weidmuller	Bornes / Terminals	ZDU 2.5*** - ZDU 4 - ZDU 6 - ZDU 6/3AN/E - ZPE 2.5*** - ZPE 4 - ZPE 6	KEMA97ATEX2521U	(1)
Weidmuller	Bornes / Terminals	ZDU 4/**** - ZDU 10/3AN/E - ZDU 16/3AN/E - ZDU 35 - ZPE */***	KEMA00ATEX2107U	(1)
Weidmuller	Bornes / Terminals	ZDU 10 - ZDU 16 - ZPE 10 - ZPE 16	KEMA99ATEX5514U	(1)
Weidmuller	Bornes / Terminals	WDK 2.5** - WDK 2.5 **-PE	KEMA98ATEX1687U	(1)
Weidmuller	Bornes / Terminals	WDK **N**** - WDK **N **PE	KEMA00ATEX2061U	(1)
Weidmuller	Bornes / Terminals	WDU **** - WDU 2.5/TC ** - WPE ****	DEMKO 14ATEX1338U	(1)
Weidmuller	Bornes / Terminals	WFF ***	KEMA98ATEX1684U	(1)
WAGO	Bornes / Terminals	TOP JOB S 2002-***7	PTB 03ATEX1162U	(1)
WAGO	Bornes / Terminals	TOP JOB S 2004-***7	PTB 05ATEX1095U	(1)
WAGO	Bornes / Terminals	TOP JOB S 2000-1**7	PTB 11ATEX1041U	(1)
WAGO	Bornes / Terminals	TOP JOB S 2006-***7	PTB 05ATEX1030U	(1)
WAGO	Bornes / Terminals	TOP JOB S 2016-***7	PTB 05ATEX1031U	(1)
WAGO	Bornes / Terminals	TOP JOB S 2010-***7	PTB 05ATEX1070U	(1)
WAGO	Bornes / Terminals	TOP JOB S 2001-***7	PTB 05ATEX 1094U	(1)

(1) Non impactés par les modifications techniques majeurs par rapport aux dernières éditions de normes. / Not impacted by the major technical modifications of the latest standards editions.

Le tableau suivant liste les certificats ATEX des composants qui peuvent être montés sur les coffrets ainsi que l'évaluation en rapport avec les éditions de normes précédentes (Pour les modes de protection « Ex d », « Ex e » et « Ex tb »).

The following table specifies the list of ATEX certificates of components that could be mounted on the enclosure and the statement of the assessments regarding the older editions of the standard (For "Ex d" or "Ex e" or "Ex tb"):

Fabricant / Manufacturer	Type d'équipements / Type operating device	Références / Code	Numéro de certificat ATEX / ATEX Certificate number	Etat par rapport aux éditions de normes précédentes / Statement of the older editions of the standard
NUOVA ASP	Opérateurs (2) / Operators (2)	EFI, EFP**, EFL*PC*....	INERIS 13ATEX9016U	(1)
FEAM	Opérateurs (2) / Operators (2)	EFI, EFP**, EFL*PC*....	INERIS 13ATEX9017U	(1)
NUOVA ASP	Valve de respiration et de drainage (2) / Breathing and draining valve (2)	ECD***	EXA14ATEX0058U	(1)
FENEX	Valve de respiration et de drainage (2) / Breathing and draining valve (2)	ECD***	EXA 14ATEX0063U	(1)
FEAM	Valve de respiration et de drainage (2) / Breathing and draining valve (2)	ECD***	EXA14ATEX0059U	(1)

(1) : Certifiés selon les dernières éditions de normes. / *Certified in accordance with the latest editions of the standard.*

(2) : Les restrictions d'utilisation sont spécifiées dans les documents descriptifs du fabricant. / *The restrictions of uses are specified in the descriptive documents of the manufacturer.*