



- (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 13ATEX0021X**

- (4) Equipment or protective system:

**ENCLOSURES TYPE GUE\* - GUB\* - GUBW\***

- (5) Manufacturer:

**FEAM**

- (6) Address:

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

- (7) This equipment or protective system 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) INERIS, notified body and identified under number 0080, in accordance with article 9 of Council Directive 94/9/EC of the 23rd March 1994, and accredited by COFRAC under number 5-0045 for certification of products and services (scope of accreditation available on the website [www.cofrac.fr](http://www.cofrac.fr)) certifies that this equipment or protective system 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 annex II of the Directive.

The examinations and the tests are consigned in report No 027170.

The rules of certification are available on the website [www.ineris.fr](http://www.ineris.fr).



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

- conformity with:

EN 60079-0	:	2012/A11:2013	EN 60079-11	:	2012
EN 60079-1	:	2007	EN 60079-31	:	2009

- 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 or  II 2(1) GD

Verneuil-en-Halatte, 2015.01.28



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

(13)

## **A N N E X**

(14)

**EC TYPE EXAMINATION CERTIFICATE N° INERIS 13ATEX0021X**

(15)

### **DESCRIPTION OF THE EQUIPMENT OR THE PROTECTIVE SYSTEM**

The metallic enclosures made in aluminum alloy, stainless steel, carbon steel or cast iron are covered by the certificate INERIS 13ATEX9018U. These enclosures can have a blind cover or provided with a glass window. The enclosures can be fitted with tubes of maximum diameter 3" and maximum length 200mm in order to assembly two flameproof enclosures separated by a certified sealing fitting in accordance with the drawing specified in the descriptive documents. Enclosures could be fitted with accessories covered by an ATEX component certificates. The list of the components is defined in the technical documentation. The accessories covered by the ATEX certificate INERIS 13ATEX9017U could be fitted without their marking due to the fact that the drawings of these components are also listed in the certification file.

They can also contain 'IS' element covered by a separated certificate.

Three different types of batteries defined in the technical documentation could be installed inside the enclosure.

These enclosures get the degrees of protection IP66 according to the EN 60529 standard.

### **PARAMETERS RELATING TO THE SAFETY**

#### For enclosure without intrinsic safety element:

These versions are intended to be used in range of ambient temperatures from:

-60°C or -40°C or -20°C to +40°C or +60°C or +80°C

Maximum supply voltage : 6.6 kVac or 750 Vdc

Maximum current : 2 000 A

Rated frequency : 0/50/60 Hz

Maximum dissipated powers are defined in the Table 1 for enclosures without window and Table 2 for enclosures with window(s).

#### For enclosure with intrinsic safety element:

These versions are intended to be used in range of ambient temperatures from:

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

The minimum ambient temperature must be in accordance with the IS components installed inside the enclosures (Barriers, terminals...)

Maximum supply voltage for Non 'IS' elements : 1000 Vac or Vdc

Maximum supply voltage for "IS" elements : 250 V

Maximum dissipated powers are defined in the Table 1 or 2 for enclosures with thermal probes.

Maximum dissipated powers are defined in the Table 3 for enclosures without thermal probes.

The maximum threshold of thermal probe shall be:

Ambient temperature of the enclosure	Ambient temperature of the IS element	Threshold of release of the thermal probe
40°C	≤ 60°C	55°C ± 5°C
	≤ 70°C	65°C ± 5°C
60°C	≤ 80°C	75°C ± 5°C

TABLE 1: Maximum dissipated power for GUB without windows and with or without IS barrier protected by thermal probes (W)											
Temperature class :	T6/T85°C		T5/T100°C			T4/T135°C			T3/T200°C		
Ambient temperature:	+40°C	+60°C	+40°C	+60°C	+80°C	+40°C	+60°C	+80°C	+40°C	+60°C	+80°C
GUE1	24	12	33	21	9	54	42	36	94	82	70
GUB0	35	17	48	30	13	79	61	52	137	119	102
GUB1	49	24	68	43	18	112	87	74	194	169	144
GUB23	91	45	126	80	33	208	162	137	360	314	267
GUB03	108	53	150	95	40	247	191	163	427	372	317
GUB4	240	114	333	207	81	553	427	366	963	837	711
GUB5	472	224	656	408	160	1088	840	720	1896	1648	1400
Allowed operators from INERIS 13ATEX9017U	Operators with NBR, EPDM, LSR or MVQ gaskets and pilots lights EFL*PC*		Operators with EPDM, LSR or MVQ gaskets and pilots lights EFL*PC*			Operators with EPDM, LSR or MVQ gaskets			Operators with LSR or MVQ gaskets		
Allowed accessories from TUV 12ATEX104523U and 11ATEX092528U and EXA 13ATEX0009U (1)	All, excepted valves who are allowed only for dust application.										
Allowed accessories from EXA14ATEX0059U, EXA 14ATEX0058U and EXA 14ATEX0063U	Can be fitted on all GUB										
TCABLE	N/A		95°C			130°C			175°C		

(1) The components covered by the certificate EXA 13ATEX0009U can be only used in a minimum ambient temperature until -55°C



<b>TABLE 2:</b> Maximum dissipated power for GUB with windows and with or without IS barrier protected by thermal probes (W)											
Temperature class :	T6/T85 °C		T5/T100 °C			T4/T135 °C			T3/T200 °C		
Ambient temperature:	+40 °C	+60 °C	+40 °C	+60 °C	+80 °C	+40 °C	+60 °C	+80 °C	+40 °C	+60 °C	+80 °C
GUBW1	42	19	60	36	12	66	48	31	66	48	31
GUBW23	78	35	111	68	23	123	89	57	123	89	57
GUBW03	92	41	132	80	27	146	106	68	146	106	68
GUBW4	175	78	251	152	51	277	201	129	277	201	129
Allowed operators from INERIS 13ATEX9017U	Operators with NBR, EPDM, LSR or MVQ gaskets and pilots lights EFL*PC*		Operators with EPDM, LSR or MVQ gaskets and pilots lights EFL*PC*			Operators with EPDM, LSR or MVQ gaskets			Operators with EPDM, LSR or MVQ gaskets		
Allowed accessories from TUV 12ATEX104523U and 11ATEX092528U and EXA 13ATEX0009U (1)	All, excepted valves who are allowed only for dust application.										
Allowed accessories from EXA14ATEX0059U, EXA 14ATEX0058U and EXA 14ATEX0063U	Can be fitted on all GUB										
TCABLE	N/A		95 °C			105 °C			105 °C		

(1) The components covered by the certificate EXA 13ATEX0009U can be only used in a minimum ambient temperature until -55 °C.

TABLE 3 : Maximum dissipated power for GUB with IS barrier without thermal probes protection							
Type of enclosure	Ambient temperature of the intrinsic safety element	T6 for ambient (W)		Type of enclosure	Ambient temperature of the intrinsic safety element	T6 for ambient (W)	
		40°C	60°C			40°C	60°C
GUE1	60°C	7	NC	GUB03/GUBW03	60°C	33	NC
	70°C	12	NC		70°C	53	NC
	80°C	16	7		80°C	73	33
GUB0	60°C	11	NC	GUB4/GUBW4	60°C	57	NC
	70°C	17	NC		70°C	87	NC
	80°C	23	11		80°C	116	57
GUB1/GUBW1	60°C	15	NC	GUB5	60°C	112	NC
	70°C	24	NC		70°C	172	NC
	80°C	33	15		80°C	228	112
GUB23/GUBW23	60°C	28	NC		60°C		
	70°C	45	NC		70°C		
	80°C	61	28		80°C		

**MARKING**

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

**A - Enclosures without intrinsic safety element:**

- FEAM
- I - 20090 Trezzano sul Naviglio (MI)
- GUE(\*) or GUB(\*) or GUBW(\*)
- INERIS 13ATEX0021X
- (Serial number)
- (Year of construction)
- Ex II 2 GD
- Ex d IIC T(\*\*)Gb
- Ex tb IIIC T(\*\*) Db IP66
- ...°C < Tamb < ...°C (\*\*\*)
- T.Cable : (\*\*\*\*)

**WARNINGS: DO NOT OPEN IF AN EXPLOSIVE ATMOSPHERE MAY BE PRESENT**

- (\*) Type is completed by numbers and/or letters corresponding to size of the enclosure
- (\*\*) Temperature class in accordance with Table 1 or 2 regarding to the maximum dissipated power
- (\*\*\*) See parameters relating to the safety.
- (\*\*\*\*) See Table 1 or 2

**B - Enclosures with intrinsic safety element [ia]:**

FEAM


I - 20090 Trezzano sul Naviglio (MI)

GUE(\*) or GUB(\*) or GUBW(\*)

INERIS 13ATEX0021X

(Serial number)

(Year of construction)

 II 2(1) GD

Ex d [ia IIA or IIB or IIC Ga] IIC T(\*\*)Gb

Ex tb [ia Da] IIIC T(\*\*) Db IP66

... °C < Tamb < ... °C (\*\*\*)

T.Cable : (\*\*\*\*)

**WARNINGS: DO NOT OPEN IF AN EXPLOSIVE ATMOSPHERE MAY BE PRESENT**

- (\*) Type is completed by numbers and/or letters corresponding to size of the enclosure
- (\*\*) Temperature class in accordance with Table 1 or 2 regarding to the maximum dissipated power
- (\*\*\*) See parameters relating to the safety.
- (\*\*\*\*) See Table 1, 2 or 3

**C - Enclosures with intrinsic safety element [ib]:**

FEAM


I - 20090 Trezzano sul Naviglio (MI)

GUE(\*) or GUB(\*) or GUBW(\*)

INERIS 13ATEX0021X

(Serial number)

(Year of construction)

 II 2 GD

Ex d [ib IIA or IIB or IIC] IIC T(\*\*)Gb

Ex tb [ib] IIIC T(\*\*) Db IP66

... °C < Tamb < ... °C (\*\*)

T.Cable : (\*\*\*)

**WARNINGS: DO NOT OPEN IF AN EXPLOSIVE ATMOSPHERE MAY BE PRESENT**

- (\*) Type is completed by numbers and/or letters corresponding to size of the enclosure
- (\*\*) Temperature class in accordance with Table 1 or 2 regarding to the maximum dissipated power
- (\*\*\*) See parameters relating to the safety.
- (\*\*\*\*) See Table 1, 2 or 3

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**

None.

**(16) DESCRIPTIVE DOCUMENTS**

The descriptive document quoted hereafter constitutes the technical documentation of the equipment, subject of this certificate.

- Certification file n° 15-220 rev.0 of 2014.12.15 signed on 2014.12.15

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

- The width of the flameproof joints is superior to those specified in tables of IEC 60079-1 standard.
- 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.

The other conditions are stipulated in the instructions.

**(18) ESSENTIAL SAFETY AND HEALTH 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.