



- (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 10ATEX0036**

- (4) Equipment or protective system:

ENCLOSURE TYPE GUB... and GUB/X...

- (5) Manufacturer: **PEPPERL+FUCHS GmbH**

- (6) Address: **Lilienthalstraße 200,
D-68307 Mannheim**

- (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, 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 024060/10.




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

- conformity with:

| | | | | | |
|-------------|---|------|--------------|---|------|
| EN 60079-0 | : | 2009 | IEC 60079-0 | : | 2007 |
| EN 60079-1 | : | 2007 | IEC 60079-1 | : | 2007 |
| EN 60079-11 | : | 2007 | IEC 60079-11 | : | 2006 |
| EN 60079-31 | : | 2009 | IEC 60079-31 | : | 2008 |
| EN 61241-11 | : | 2006 | IEC 61241-11 | : | 2005 |

- 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 or  II 2 (2) GD

Verneuil-en-Halatte, 2010 11 19



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

(13)

A N N E X

(14)

EC TYPE EXAMINATION CERTIFICATE N° INERIS 10ATEX0036

(15)

DESCRIPTION OF THE EQUIPMENT OR THE PROTECTIVE SYSTEM

These enclosures of different sizes are made in light alloy or stainless steel except for type GUB5 and are intended to contain equipment defined in technical note.

The enclosures can be fitted with breather devices and/or drainage and any control auxiliaries and lighting.

These enclosures in light alloy can be fitted with a window and an extension.

Enclosures present a degree of protection IP65 or IP67 when the cover is fitted with o-ring and with accessories according to standard IEC/EN 60529.

Enclosures have the possibility to install inside apparatus with batteries for the safeguard of the memories.

Enclosures can be fitted with intrinsic safety elements 'IS' and none intrinsic safety elements 'NIS' or only with 'IS' elements. Different elements of intrinsic safety are defined in technical note and are of certified type.

PARAMETERS RELATING TO THE SAFETY

Type and power of the signaling operators : incandescent 5 W (with class T4)
 Frequency : 50/60Hz
 Maximum supply voltage "NIS" elements : 660 V (DC) or 1000 V (AC)
 Maximum supply voltage "IS" elements : 250 V

Characteristic of thermal probe installed in the enclosure with intrinsic safety element :

| Threshold of release | Ambient temperature for the enclosure | Ambient temperature for intrinsic safety element |
|----------------------|---------------------------------------|--|
| 58°C ± 2°C | 55°C | ≥ 60°C |
| 68°C ± 2°C | 60°C | ≥ 70°C |

Maximum dissipated powers:

The maximum dissipated power and the number of the elements of intrinsic safety (isolation device) are defined in the descriptive documents according to the type of the enclosure and the class of temperature.

MARKING

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

A - Enclosure without intrinsic safety element:

PEPPERL+FUCHS
 Lilienthalstraße, 200
 68307 Mannheim · GERMANY
 GUB... (1)
 INERIS 10ATEX0036
 (Serial number)
 (Year of construction)

⊕ Ex II 2 GD
 Ex d IIC T(*) Gb
 Ex tb IIIC T (*) Db
 IP (**)
 T. amb : (*)
 T. cable : (*)

WARNINGS:

DO NOT OPEN WHEN ENERGIZED

When the enclosure is fitted with battery the following mention has to be applied:

DO NOT OPEN WHEN AN EXPLOSIVE ATMOSPHERE MAY BE PRESENT.

(1) The dots are replaced by a codification according to the manufacturing variations. The different types are indicated in the descriptive documents.

(*) See table below.

(**) 65 or 67. When the cover is fitted with O-ring, the enclosure presents the degrees of protection IP67.

| Ambient temperature range | Temperature class | | Cable temperature |
|------------------------------|-------------------|--------|-------------------|
| | Gas | Dust | |
| -20°C / 40°C or -50°C / 40°C | T6 | T85°C | NC |
| | T5 | T100°C | 80°C |
| | T4 | T135°C | 95°C |
| | T3 | T200°C | 110°C |
| -20°C / 60°C or -50°C / 60°C | T6 | T85°C | 90°C |
| | T5 | T100°C | 100°C |
| | T4 | T135°C | 115°C |
| | T3 | T200°C | 130°C |

The temperature class and the ambient temperature are in accordance with the maximum powers dissipated and the size of the enclosure and are stipulated on the descriptive documents.

B - Enclosure with intrinsic safety elements [ib]:


PEPPERL+FUCHS
Lilienthalstraße, 200
68307 Mannheim - GERMANY

GUB... (1)

INERIS 10ATEX0036

(Serial number)

(Year of construction)

 II 2 (2) GD

Ex d [ib Gb] IIC T6 Gb

Ex tb [ibD] IIIC T85 °C Db

IP (*)

T.amb (**)

WARNINGS:

DO NOT OPEN WHEN ENERGIZED

When the enclosure is fitted with battery the following mention has to be applied:

DO NOT OPEN WHEN AN EXPLOSIVE ATMOSPHERE MAY BE PRESENT.

(1) The dots are replaced by a codification according to the manufacturing variations. The different types are indicated in the descriptive documents.

(*) 65 or 67 When the cover is fitted with O-ring, the enclosure presents the degrees of protection IP67.

(**) One of the following range of ambient temperature : -20°C to +40°C or -50°C to +40°C or -20°C to +50°C or -50°C to +50°C or -20°C to +55°C or -50°C to +55°C or -20°C to +60°C or -50°C to +60°C.

C - Enclosure with intrinsic safety elements [ia]:


PEPPERL+FUCHS
Lilienthalstraße, 200
68307 Mannheim - GERMANY

GUB... (1)

INERIS 10ATEX0036

(Serial number)

(Year of construction)

 II 2 (1) GD

Ex d [ia Ga] IIC T6 Gb

Ex tb [iaD] IIIC T85 °C Db

IP (*)

T.amb (**)

WARNINGS:

DO NOT OPEN WHEN ENERGIZED

When the enclosure is fitted with battery the following mention has to be applied:

DO NOT OPEN WHEN AN EXPLOSIVE ATMOSPHERE MAY BE PRESENT.

- (1) The dots are replaced by a codification according to the manufacturing variations. The different types are indicated in the descriptive documents.
- (*) **65 or 67** When the cover is fitted with O-ring, the enclosure presents the degrees of protection IP67.
- (**) One of the following range of ambient temperature : -20°C to +40°C or -50°C to +40°C or -20°C to +50°C or -50°C to +50°C or -20°C to +55°C or -50°C to +55°C or -20°C to +60°C or -50°C to +60°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

A - ENCLOSURES FOR AMBIENT -20°C

For sizes 4 and 5 and all size of windows made in light alloy:

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 15.5 bar.

For the enclosures sizes 00, 0, 1, 2, 3 and 4, without window and extension made in stainless steel:

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 15.5 bar.

For the enclosures sizes 00, 0, 1, 2 and 3, without window, with possibility of extension made in light alloy:

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 31 bar.

B - ENCLOSURE FOR AMBIENT -50 °C

For sizes 00, 0, 1, 2, 3 and 4 made in light alloy:

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 21.6 bar.

For sizes 00, 0, 1, 2, 3 and 4 without window and extension made in stainless steel:

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 21.6 bar

(16) DESCRIPTIVE DOCUMENTS

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

- Certification file n° 47 of 2010.10.10 (29 rubrics) signed on 2010.10.10

(17) SPECIAL CONDITIONS FOR SAFE USE

None.

(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.