



# IECEX Certificate of Conformity

## INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification Scheme for Explosive Atmospheres

for rules and details of the IECEx Scheme visit [www.iecex.com](http://www.iecex.com)

Certificate No.: IECEx INE 14.0042X

Issue No: 1

Certificate history:

Issue No. 1 (2017-03-14)

Issue No. 0 (2014-11-20)

Status: **Current**

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Date of Issue: **2017-03-14**

Applicant: **PEPPERL+FUCHS GmbH**  
Lilienthalstraße 200  
68307 Mannheim  
**Germany**

Equipment: **Enclosures type GUB\*\*\*/GUBX\*\*\***

*Optional accessory:*

Type of Protection: **db, db[ia], db[ib], e, eb, ib, op is, op pr, tb, tb[ia] or tb[ib]**

Marking: Ex db(\*) IIA or IIB or IIB+H2 or IIC T6 or T5 or T4 or T3 Gb  
Ex tb (\*) III C T85°C or T100°C or T135°C or T200°C Db

(\*) : The marking could be completed with the type protection mode in accordance with the equipment mounted in/with the enclosures

*Approved for issue on behalf of the IECEx  
Certification Body:*

Thierry HOUEIX

*Position:*

Ex Certification Officer

*Signature:  
(for printed version)*

*Date:*

1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting the [Official IECEx Website](http://www.iecex.com).

Certificate issued by:

**INERIS**  
Institut National de l'Environnement Industriel  
et des Risques, BP n2  
Parc Technologique ALATA  
France



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Manufacturer: **PEPPERL+FUCHS srl**  
Via Galileo Galilei, 1B  
20875 Burago di Molgora (MB)  
**Italy**

Additional Manufacturing location(s):

**ADDITIONAL MANUFACTURING LOCATIONS : SEE ANNEX**

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements. This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended.

## STANDARDS:

The apparatus and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards:

<b>IEC 60079-0 : 2011</b> Edition:6.0	Explosive atmospheres - Part 0: General requirements
<b>IEC 60079-1 : 2014-06</b> Edition:7.0	Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
<b>IEC 60079-11 : 2011</b> Edition:6.0	Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
<b>IEC 60079-28 : 2015</b> Edition:2	Explosive atmospheres - Part 28: Protection of equipment and transmission systems using optical radiation
<b>IEC 60079-31 : 2013</b> Edition:2	Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"
<b>IEC 60079-7 : 2006-07</b> Edition:4	Explosive atmospheres - Part 7: Equipment protection by increased safety "e"
<b>IEC 60079-7 : 2015</b> Edition:5.0	Explosive atmospheres - Part 7: Equipment protection by increased safety "e"

*This Certificate **does not** indicate compliance with electrical safety and performance requirements other than those expressly included in the Standards listed above.*

## TEST & ASSESSMENT REPORTS:

*A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in*

### Test Report:

[FR/INE/ExTR14.0035/00](#)      [FR/INE/ExTR14.0035/01](#)

### Quality Assessment Report:

[DE/PTB/QAR06.0015/09](#)      [DE/PTB/QAR16.0002/00](#)      [FR/INE/QAR12.0003/04](#)  
[US/UL/QAR07.0005/11](#)



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## Schedule

### EQUIPMENT:

*Equipment and systems covered by this certificate are as follows:*

The metallic enclosures made in aluminum alloy (GUB) or in stainless steel (GUBX) of different sizes are covered by the certificate IECEx INE 16.0051U. These enclosures can have a blind cover or provided with glass windows and an extension. Enclosures could be fitted with accessories (breather/drains devices, pilot lights, operators..) covered by separated component certificates. The list of the components is defined in the annex of the certificate.

In accordance with the technical documentations and instructions manual, they can also contain :

- 'IS' element covered by a separated certificate and/or 'NIS' elements.
- Batteries
- Electromagnetic, ultrasonic, radio frequency sources, new measurement instruments and some equipment with type protection "Ex i", "Ex e", "Ex m", "Ex o", "Ex p" and "Ex q" covered by separated full conformity certificates.
- Optical fiber or laser with type of protection "op is" or "op pr" and lasers with type of protection "op is" covered by separated full conformity certificates. The enclosures could also contain the optical device type "OPC120" (not covered by separated full conformity certificate) protected by "op is".

The enclosures could be coupled by a certified sealing bushings with an enclosure with type protection "Ex de", "Ex e" or "Ex i" also covered by a full conformity certificate.

These enclosures get the degrees of protection IP66 without O-ring or IP66/67 with O-ring according to the IEC 60529 standard but the final marking should be in accordance with the minimum degrees of protection of accessories mounted on the enclosures.

### SPECIFIC CONDITIONS OF USE: YES as shown below:

- The width of the flameproof joints is superior to those specified in tables of IEC 60079-1 standard : contact the original manufacturer for any repairs of the flameproof joints
- The instructions for safe use are completed by those stipulated in the instructions manuals of the manufacturer and of each Ex component fitted on the final product



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## DETAILS OF CERTIFICATE CHANGES (for issues 1 and above):

### **Issue n°1 :**

- Application of the modifications and extensions in accordance with the new component certificate IECEx INE 16.0051U of the range of enclosures.
- Updates of the tables with maximum dissipated power according to the additional thermal tests.
- Update of the list of equipment covered by a separated component certificate.
- New option to install intrinsic safety elements in the enclosures intended for a minimum ambient temperature between -20°C and -60°C using a thermal control devices that ensure the conditions of uses of the certified elements.
- Introduction of new type of cells SL 700 series that could be installed inside the enclosures in accordance with descriptive documents of the manufacturer.
- Introduction of new optical device type "OPC120" (not covered by separated full conformity certificate) protected by "op is" that could be installed inside the enclosures.
- Removed the limitation of Max. Supply Voltage 1000VAC and 660VDC for NON I.S. elements.
- New list of additional Manufacturing locations.
- Application of the standard IEC 60079-1:2014, IEC 60079-7:2015 and IEC 60079-28:2015

### **Annex:**

[IECEX INE 14.0042X-01\\_Annex.pdf](#)



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## PARAMETERS RELATING TO THE SAFETY

Maximum supply voltage for "IS" elements : 250 V  
 Rated frequency : 50/60 Hz  
 Maximum power of the signaling operators : 5 W (T4, T3 with incandescent lamps of 5W)

The maximum dissipated powers are defined in the descriptive documents for the different ambient temperature ranges and according to the type of the enclosure (with or without windows), the class of temperature and the presence or absence of the thermal probe to protect 'IS' elements.

When thermal probes are used in order to protect the 'IS' elements, the maximum threshold of thermal probe shall be according with threshold value of  $[(T_{IEEx}-2) \pm 2^{\circ}C]$  with  $T_{IEEx}$ = Maximum value of the certified ambient temperature of the "IS" elements.

When thermal probes are used in order to protect the 'IS' elements regarding the low temperature, the maximum threshold of thermal probe shall be according with threshold value of  $[(T_{minEx}+2) \pm 2^{\circ}C]$   $T_{minEx}$ = Minimum value of the certified ambient temperature of the "IS" elements.

In accordance with the component certificate IECEx INE 16.0051U and depending on the final configuration of the enclosures, the equipment can be used in the ambient temperature range from -60°C up to +190°C for Group IIC.

### Uses of components covered by separated IECEx certificates:

The table below details the accessories that could be fitted with the enclosures. The restrictions of uses of each component are detailed in the descriptive documents of the manufacturers.

List of the components covered by separated IECEx certificates and statement of the assessments regarding the older editions of the standard:

Family name	IECEx CoC number	Manufacturer	Type	Standards and Statement of the older editions of the standard
GUB/GUBX	IECEx INE 16.0051U	PEPPERL+FUCHS	Enclosures	IEC 60079-0: 2011 : See (1) IEC 60079-1: 2014: See (1) IEC 60079-31: 2013: See (1)
"R", "B", "RB"	IECEx CES 10.0002U (Issue 1)	CORTEM	Three pieces union	IEC 60679-0: 2011: See (1) IEC 60079-1: 2007: See (4) IEC 60079-31: 2008: See (2)
"KBD", "KB1" and "KB1FA" series	IECEx CSA 10.0007U	Killark Division of Hubbell, Inc. (Delaware)	Flame arrestor	IEC 60079-0:2004: See (3) IEC 60079-1: 2003: See (4)
FT/VS 61090...	IECEx INE 12.0002U (Issue 3)	Officine Meccaniche MAM	Flame arrestor	IEC 60079-0: 2011: See (1) IEC 60079-1: 2014: See (1) IEC 60079-7: 2006: See (5) IEC 60079-31: 2013: See (1)
AX***	IECEx DNV 11.0015U	Solexy USA, LLC	Antenna coupler	IEC 60079-0: 2011: See (1) IEC 60079-1: 2007: See (4) IEC 60079-11: 2011: See (1) IEC 60079-18: 2009: See (1)
"RL*", "RP*" and "RI*(CM*)" series	IECEx INE 14.0030U	PEPPERL+FUCHS	Operators	IEC 60079-0: 2011 : See (1) IEC 60079-1: 2007: See (4) IEC 60079-31: 2013: See (1)
MN, MNH and SMH	IECEx SIM 08.0009U (Issue2 )	PEPPERL+FUCHS	Operators	IEC 60079-0: 2000: See (3) IEC 60079-1: 2003: See (4)



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Family name	IECEx CoC number	Manufacturer	Type	Standards and Statement of the older editions of the standard
E540	IECEx SIR 08.0067U (Issue 2)	PEPPERL+FUCHS	Operators	IEC 60079-0:2007: See (3) IEC 60079-1:2007: See (4)
VDR**	IECEx INE 14.0031U	PEPPERL+FUCHS	Drain and breath valves	IEC 60079-0:2011: See (1) IEC 60079-1:2007: See (4) IEC 60079-31:2013: See (1)
PV02H*	IECEx SIR 12.0007U	PEPPERL+FUCHS	Drain and breath valves	IEC 60079-0:2007: See (3) IEC 60079-1:2007: See (4) IEC 60079-31:2008: See (2)
07-91...	IECEx EPS 13.0045U	BARTEC	Line bushing	IEC 60079-0:2011: See (1) IEC 60079-1:2007: See (4) IEC 60079-31:2013: See (1)
57-91...	IECEx PTB 13.0030U (Issue 1)	BARTEC	Line bushing	IEC 60079-0:2007: See (3) IEC 60079-1:2007: See (4)
CP-TP-NPS- NCS-LPS	IECEx CES 10.0003U (Issue 1)	CORTEM	Line bushing	IEC 60679-0:2011: See (1) IEC 60079-1:2007: See (4) IEC 60079-31:2008: See (2)
TMX-...	IECEx INE 12.0019U (Issue 1)	IDRM	Line bushing	IEC 60679-0:2011: See (1) IEC 60079-1:2007: See (4) IEC 60079-31:2008: See (2)
GHG 640 ** R****	IECEx BVS 13.0098U	Cooper Crouse- Hinds	Line bushing	IEC 60679-0:2011: See (1) IEC 60079-1:2014: See (1)

(1): Certified in accordance with the last edition of the applicable standards.

(2): Not impacted by the major technical changes until the standard IEC 60079-31:2013

(3): Not impacted by the major technical changes until the standard IEC 60079-0:2011

(4): Not impacted by the major technical changes until the standard IEC 60079-1:2014

(4): Not impacted by the major technical changes until the standard IEC 60079-7:2015

## **MARKING**

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

PEPPERL+FUCHS  
68307 Mannheim - GERMANY  
GUB... (\*)  
IECEx INE 14.0042X  
(Serial number)  
Ex db (\*\*) IIA or IIB or IIB+H2 or IIC Gb  
Ex tb (\*\*) IIIC Db IP (\*\*\*)  
T.amb : (\*\*)  
T. cable : (\*\*)

**WARNINGS DO NOT OPEN WHEN AN EXPLOSIVE ATMOSPHERE MAY BE PRESENT.**

- (\*) The dots are replaced by a codification according to the manufacturing variations. The different types are indicated in the descriptive documents.
- (\*\*) The type of protection, cable temperature in accordance with different factors as the internal equipment covered or not by an IECEx certificate, ambient temperature and maximum power dissipated.
- (\*\*\*) In accordance with the minimum degrees of protection of accessories mounted on the enclosures.



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## ROUTINE EXAMINATIONS AND TESTS

None, covered by the Ex Component certificates

## ADDITIONAL MANUFACTURING LOCATIONS

	Manufacturer 1	Manufacturer 2	Manufacturer 3	Manufacturer 4
<b>Manufacturer Name:</b>	PEPPERL+FUCHS Inc.	Pepperl+Fuchs Manufacturing UK Ltd.	Pepperl+Fuchs (Aust) Pty Ltd	Pepperl+Fuchs GmbH
<b>Manufacturer Address:</b>	4333 West Sam Houston Parkway North Suite 150 Houston, TX 77043	Unit 8, The Woods Bank Estate, Wednesbury, West Midlands, WS107SU	Process Automation Division 131-149 Link Drive Campbellfield, Victoria, 3061.	Werk Bühl Busmatten 10-12 77815 Bühl/Baden
<b>Manufacturer Country :</b>	United States of America	United Kingdom	Australia	Germany

	Manufacturer 5	Manufacturer 6	Manufacturer 7
<b>Manufacturer Name:</b>	Pepperl+Fuchs (India) Pvt. Ltd.	Pepperl+Fuchs (Shanghai) Automation Engineering Co. Ltd.	Pepperl & Fuchs Manufacturing (India) Pvt. Ltd
<b>Manufacturer Address:</b>	#546/1, 7th Main, 4th Phase Peenya Industrial Estate Bangalore-560058	Nr. 269, Yuanzhong Rd., Huinan Town, Pudong District, Shanghai, 201399	Plot no. A-13, Sipcot Industrial Growth Centre, Orgadam, Tamil Nadu, 602105
<b>Manufacturer Country :</b>	India	Peoples Republic of China	India