# IECEx Certificate of Conformity

## INTERNATIONAL ELECTROTECHNICAL COMMISSION
## IEC Certification System for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

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|---|---|---|---|
| Certificate No.: | **IECEx INE 11.0033X** | Page 1 of 4 | Certificate history: |
| Status: | **Current** | Issue No: 2 | Issue 1 (2015-01-15)<br>Issue 0 (2012-02-09) |
| Date of Issue: | 2022-01-06 | | |
| Applicant: | **BARTEC F.N. S.R.L.**<br>Via M. Pagano, 3<br>I - 20090 Trezzano sul Naviglio (MI)<br>**Italy** | | |
| Equipment: | **Control and signalling units type EFDC* or EFSC*** | | |
| Optional accessory: | | | |
| Type of Protection: | **d and tb** | | |
| Marking: | Ex d IIC T6 or T5 Gb<br>Ex tb III C T85°c or T100°C Db IP66 | | |

Approved for issue on behalf of the IECEx Certification Body:

**Thierry HOUEIX**

Position:

**Ex Certification Officer**

Signé électroniquement
Digitally signed by
Thierry HOUEIX
Ex Certification Officer
Délégué Certification

Signature:
(for printed version)

Date:

**2022-01-06**

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Certificate issued by:

**INERIS**
**Institut National de l'Environnement Industriel et des Risques**
**BP n2 / Parc Technologique ALATA**
**F-60550 Verneuil-en-Halatte**
**France**

controlling risks for sustainable development

# IECEx Certificate of Conformity

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Date of issue: 2022-01-06 Issue No: 2

Manufacturer: **BARTEC F.N. S.R.L.**
Via M. Pagano, 3
I - 20090 Trezzano sul Naviglio (MI)
**Italy**

Additional manufacturing locations:

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 equipment 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

IEC 60079-0:2011 Explosive atmospheres - Part 0: General requirements
Edition:6.0

IEC 60079-1:2007-04 Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
Edition:6

IEC 60079-31:2013 Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"
Edition:2

This Certificate **does not** indicate compliance with 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 Reports:

FR/INE/ExTR11.0031/00 FR/INE/ExTR11.0031/01 FR/INE/ExTR11.0031/02

Quality Assessment Report:

IT/CES/QAR09.0003/14

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**EQUIPMENT:**
Equipment and systems covered by this Certificate are as follows:

These control and signalling units made in light alloy can be fitted with control auxiliaries, push buttons and pilot lights and measuring instruments.
The cover can be screwed or fixed by screws with minimum quality A2-70 or A4-70. For the cover fixed by screws different versions are intended with one up to three spaces. The type EFDC7*** can be fitted with one up to five operators covered by IECEx INE 13.0073U, for this application the marking of the operators can be removed.
These enclosures can be fitted with all Ex components IECEx TUN 11.0038U, IECEx TUN 12.0025U or IECEx EXA 13.0001U, except the drain valve which is only allowed for dust application.
They can be ffitted with the breathing and draining valve type ECD1** covered by the Ex compoent IECEx EXA 14.0004U, IECEx EXA 14.0005U or IECEx EXA 14.0006U.

The enclosures gets the degrees of protection IP66 in accordance with IEC 60529.

**SPECIFIC CONDITIONS OF USE: YES as shown below:**
- The gap and diametrical clearance of the different flamepath are less than the values specified in the table of the IEC 60079-1 standard.

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

- During the installation, of the equipment fitted with pilot lights, the user will take into consideration that the equipment underwent only an impact test corresponding to an energy of a low risk.

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**DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)**
**Issue n°2:**

- Change of the name and address of the applicant and manufacturer
- Update of the marking plates

**Issue n°1:**

- Add a new type EFDC7*** fitted with  a maximum five operators.
- Application of the new standard IEC 60079-31:2013.
- Add some Ex components.

**Annex:**

IECEx INE 11.0033X-02_Annex.pdf

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Certificate No.: IECEx INE 11.0033X



Annex: IECEx INE 11.0033X-02_Annex.pdf

**PARAMETERS RELATING TO THE SAFETY**

**Characteristics of the signaling lamps:**

Incandescent lamp (Excluded for EFDC7****):
Maximum supply voltage : 240 V
Maximum dissipated power : 3 W

LED lamp:
Maximum supply voltage : 240 V
Maximum dissipated power : 1 W

Neon lamp:
Maximum supply voltage : 400 V
Maximum dissipated power : 1 W

Characteristics of the devices:
Maximum supply voltage : 660 V
Maximum current : 32 A

Characteristics of the measuring instruments:
Maximum supply voltage : 660 V
Maximum power analog measuring instruments : 3 VA
Maximum power analog measuring instruments : 0.5 VA

The nominal electrical parameters, for each device, are specified in the descriptive documents

These controls and signaling units is intended to be used in the following range of ambient temperatures:

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

**MARKING**

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

**Control and signaling units for ambient 40°C:**

- BARTEC FN **(***)**
- I – 20090 Trezzano sul Naviglio (MI)
- EF… **(*)**
- IECEx INE 11.0033X
- (Serial number)
- Ex d IIC T6 Gb
- Ex tb IIIC T85°C Db IP66
- …°C< Tamb < …°C **(**)**
- Cable entries : (type and size)

**WARNINGS:**

- DO NOT OPEN WHEN ENERGIZED.
- AFTER DE-ENERGIZED, DELAY 11 MINUTES BEFORE OPENING.

**(*)** Type is completed by number and/or letter corresponding to the manufacturer variations.
**(**)** Range of ambient temperatures if different from -20°C to 40°C.
**(***)** Optional Brands “BARTEC FEAM” or “BARTEC NASP” can be added in the marking with the sentence “manufactured by BARTEC FN”

**Control and signaling units for ambient 60°C:**

- BARTEC FN **(***)**
- I – 20090 Trezzano sul Naviglio (MI)
- EF… **(*)**
- IECEx INE 11.0033X
- (Serial number)
- Ex d IIC T5 Gb
- Ex tb IIIC T100°C Db IP66
- …°C< Tamb < …°C **(**)**
- Cable entries : (type and size)

**WARNINGS:**

- DO NOT OPEN WHEN ENERGIZED.
- AFTER DE-ENERGIZED, DELAY 11 MINUTES BEFORE OPENING.

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Annex: IECEx INE 11.0033X-02_Annex.pdf

**(*)** Type is completed by number and/or letter corresponding to the manufacturer variations.
**(**)** Range of ambient temperatures.
**(***)** Optional Brands “BARTEC FEAM” or “BARTEC NASP” can be added in the marking with the sentence “manufactured by BARTEC FN”

**ROUTINE EXAMINATIONS AND TESTS**

In accordance with clause 16.1 of the IEC 60079-1 standard, each piece of equipment defined above has to have successfully passed, before delivery, an overpressure test of a period comprised between 10 and 60 seconds under:

**Control and signaling units with one space:**

- 12.6 bar for ambient temperature down to -20°C.
- 20.4 bar for ambient temperature down to -60°C.

**Control and signaling units with two or three spaces:**

- 15.3 bar for ambient temperature down to -20°C.
- 24.8 bar for ambient temperature down to -60°C.

**Control and signaling units EFDC7:**

- 13.2 bar for ambient temperature down to -20°C.
- 21.4 bar for ambient temperature down to -60°C.