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

Certificate No.: **IECEx INE 13.0075X**

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Certificate history:

Status: **Current**

Issue No: 4

Issue 3 (2021-11-29)
Issue 2 (2018-10-24)
Issue 1 (2015-07-22)
Issue 0 (2014-01-31)

Date of Issue: 2022-01-06

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

Equipment: **Lighting fixtures type EVAC...**

Optional accessory:

Type of Protection: **db, op is and tb**

Marking:

For conventional model
Ex db IIC T6…T2 Gb
Ex tb IIIC T85°C…T225°C Db IP66
For LED version type EVAC...LED and EVAC...L*:
Ex db op is IIC T6 or T5 or T4 Gb,
Ex op is tb IIIC T85°C or T100°C or T135°C Db IP66
For LED version type EVAC...L* – C*:
Ex db IIC T6 or T5 or T4 Gb,
Ex tb IIIC T85°C or T100°C or T135°C Db IP66

The complete marking is detailed in Annex.

Approved for issue on behalf of the IECEx Certification Body:

Position:

Signature:
(for printed version)

Date:

Thierry HOUEIX

Ex Certification Officer

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

2022-01-06

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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

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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 60079-0:2017 Explosive atmospheres - Part 0: Equipment - General requirements
Edition:7.0

IEC 60079-1:2014-06 Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
Edition:7.0

IEC 60079-28:2015 Explosive atmospheres - Part 28: Protection of equipment and transmission systems using optical radiation
Edition:2

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 Report:

FR/INE/ExTR13.0075/04

Quality Assessment Report:

IT/CES/QAR09.0003/14

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

These lighting fixtures made in aluminum alloy are intended to receive different type of lamps.
Depending on the model, the ballast/driver could be installed directly inside light housing or in a separated ballast housing. When using a separated ballast housing, the two compartments are separated by a sealed bushing. As specified in the descriptive documents of the manufacturer, the separated ballast housing could be:

- the UNIT PRC covered by IECEx INE 13.0060X or
- the specific ballast housings model EVAC201 L*, EVAC201 L*-C*, EVAC501L* and EVAC501L*-C* or
- other enclosure covered by an IECEx certificate for this application.

This equipment gets the degrees of protection IP66 in accordance with IEC 60529 standard.

SPECIFIC CONDITIONS OF USE: YES as shown below:

- The length of the flameproof joints are greater than those specified in tables of IEC 60079-1 standard. For any repair, contact the manufacturer.
- During the installation, the user will take into consideration that the window of the lighting fixture type EVAC50* LED or EVAC501 L* and type EVAC501L*- C* underwent only a shock corresponding to an energy of a low risk at 2J.

The other conditions of use are stipulated in the instructions

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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)

Purpose of the Issue 4:

- Introduction of Models EVAC201L*– C1 or C2 and Models EVAC501L*– C3 or C4
- Application of the standard IEC 60079-0:2017 (currently IEC 60079-0:2011)

Purpose of the Issue 3:

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

Purpose of the Issue 2:

- New version EVAC 201 L and EVAC 501 L including new ballast housings
- Application of the type of protection « op is » in accordance with the standard IEC 60079-28 :2015 for LED version.
- Application of the standard IEC 60079-1:2014

Purpose of the Issue 1:

- Addition of new models type EVAC 500 LED and EVAC 501 LED.
- Possibility to install inside the EVAC 501 the following types of lamps:250 W Sodium vapor and 250 W Metal halide.
- Possibility to install inside the EVAC 200 or EVAC 201 the following types of lamps: Xenon 2J, Maxixenon 2J, Maxixenon 6J.

Annex:

IECEx INE 13.0075X-04_Annex.pdf

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Certificate No.: IECEx INE 13.0075X

Issue No.: 04

Annex: IECEx INE 13.0075X-04_Annex.pdf

PARAMETERS RELATING TO THE SAFETY

Maximum supply voltage for ballasts or electronic modules:

- 230V, 240V or 277 V in accordance with the type of ballast or electronic module and the lamp.

For the the lighting fixtures type EVAC20* LED, EVAC201 L*, EVAC50* LED and EVAC501 L*: Electrical characteristic of the fuse protection for “op is” protection mode are specified in the instructions of the manufacturer.

The different types and powers of lamps, the temperature classes following the maximum ambient temperature are detailed in the tables at the end.

The lighting fixtures type EVAC50* LED, EVAC501 L* and EVAC501 L*-C*can be used in the range ambient temperatures from -40°C to 60°C. The other lighting fixtures type EVAC (conventional or LED version) can be used in the following range ambient temperatures from -60°C to +60°C.

MARKING

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

1. On the conventional model (all types of lamps excepted LED version):

- BARTEC FN (5)
- I - 20090 Trezzano sul Naviglio (MI)
- EVAC (1)
- IECEx INE 13.0075X
- (Serial number)
- Ex db IIC T(2) Gb
- Ex tb IIIC T(2) Db IP66
- …°C < Tamb < …C (3)
- T.cable= … (4)
- CABLE GLAND : (type and size)
- **WARNINGS:** DO NOT OPEN WHEN ENERGIZED
  DO NOT OPEN IF AN EXPLOSIVE ATMOSPHERE MAY BE PRESENT

(1) The type is completed by numbers and letters corresponding to the manufacturing variations.
(2) T6…T2 or T85°C…T225°C : according to the versions as defined in tables at the end
(3) Range of ambient temperatures if different from -20°C to +40°C.
(4) T.cable according to the versions as defined in tables at the end.
(5) Optional Brands “BARTEC FEAM” or “BARTEC NASP” can be added in the marking with the sentence “manufactured by BARTEC FN”

2. On the LED model type EVAC20* LED, EVAC201 L*, EVAC50* LED and EVAC501 L*:

- BARTEC FN (5)
- I - 20090 Trezzano sul Naviglio (MI)
- EVAC (1)
- IECEx INE 13.0075X
- (Serial number)
- Ex db op is IIC T(2) Gb
- Ex op is tb IIIC T(2) Db IP66
- …°C < Tamb < …C (3)
- T.cable= … (4)
- CABLE GLAND : (type and size)
- **WARNINGS:** DO NOT OPEN WHEN ENERGIZED
  DO NOT OPEN IF AN EXPLOSIVE ATMOSPHERE MAY BE PRESENT

(1) The type is completed by numbers and letters corresponding to the manufacturing variations.
(2) T6 or T5 or T4 or T85°C or T100°C or T135°C: according to the versions as defined in tables at the end.
(3) Range of ambient temperatures if different from -20°C to +40°C
(4) T.cable according to the versions as defined in tables at the end.
(5) Optional Brands “BARTEC FEAM” or “BARTEC NASP” can be added in the marking with the sentence “manufactured by BARTEC FN”

3. On the LED model type EVAC201 L*-C* and EVAC501 L*-C*:

- BARTEC FN [5]
- I - 20090 Trezzano sul Naviglio (MI)
- EVAC [1]
- IECEx INE 13.0075X
- (Serial number)
- Ex db IIC T[2] Gb
- Ex tb IIIC T[2] Db IP66
- …°C < Tamb < …C [3]
- T.cable= … [4]
- CABLE GLAND : (type and size)
- **WARNINGS:** DO NOT OPEN WHEN ENERGIZED
  DO NOT OPEN IF AN EXPLOSIVE ATMOSPHERE MAY BE PRESENT

(1) The type is completed by numbers and letters corresponding to the manufacturing variations.
(2) T6 or T5 or T4 or T85°C or T100°C or T135°C: according to the versions as defined in tables at the end.
(3) Range of ambient temperatures if different from -20°C to +40°C
(4) T.cable according to the versions as defined in tables at the end.
(5) 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 apparatus defined below has to have successfully passed, before delivery, an overpressure test of a period during at least 10 seconds under:

Type	Minimum ambient temperature :		
	-20°C	-40°C	-60°C
Conventional model EVAC *** LED model EVAC20* LED LED model EVAC201 L (light housing) LED model EVAC201 L*-C* (light housing)	12.9 bar	N/A	14.2 bar
LED model EVAC50* LED LED model EVAC501 L (light housing) LED model EVAC501 L*-C* (light housing)	12.3 bar	17.9 bar	N/A
LED model EVAC201 L (ballast housing) LED model EVAC201 L*-C* (ballast housing)	N/A	16.5 bar	17.5 bar
LED model EVAC501 L (ballast housing) LED model EVAC501 L*-C* (ballast housing)	N/A	16.5 bar	N/A

TABLES

Table 1: Type EVAC100... or EVAC101...				
Type and maximum power of lamp	**Ambient temperature range**	**Concerned explosive atmosphere**		**Cable temperature**
		Gas	**Dusts**	
100 W Incandescent	-20°C or-60°C/+40°C	T4	T135°C	N.C
	-20°C or-60°C /+60°C			95°C
100 W Halogen	-20°C or-60°C/+40°C	T4	T135°C	N.C
	-20°C or-60°C /+60°C			95°C
12 W LED	-20°C or-60°C/+40°C	T6	T85°C	N.C
	-20°C or-60°C /+60°C			N.C
100 W Metal halide	-20°C or-60°C/+40°C	T3	T140°C	NC
	-20°C or-60°C /+60°C		T160°C	N.C
80 W Mercury vapor	-20°C or-60°C/+40°C	T4	T135°C	N.C
	-20°C or-60°C /+60°C	T3	T160°C	N.C
70 W Sodium vapor	-20°C or-60°C/+40°C	T4	T135°C	N.C
	-20°C or-60°C /+60°C			N.C
15 W Fluorescent	-20°C or-60°C/+40°C	T6	T85°C	N.C
	-20°C or-60°C /+60°C			N.C
25 W AC Incandescent 21 W DC	-20°C or-60°C/+40°C	T6	T85°C	N.C
	-20°C or-60°C /+60°C	T5	T95°C	N.C

N.C : Not Concerned

Table 2: Type EVAC200... or EVAC201...				
Type and maximum power of lamp	**Ambient temperature range**	**Concerned explosive atmosphere**		**Cable temperature**
		Gas	**Dust**	
200 W Incandescent	-20°C or-60°C/+40°C	T4	T135°C	95°C
	-20°C or-60°C /+60°C	T3	T160°C	120°C
160 W Blended light	-20°C or-60°C/+40°C	T3	T140°C	95°C
	-20°C or-60°C /+60°C		T160°C	120°C
150 W Halogen	-20°C or-60°C/+40°C	T4	T135°C	N.C
	-20°C or-60°C /+60°C	T3	T160°C	95°C
125 W Mercury vapor	-20°C or-60°C/+40°C	T3	T140°C	N.C
	-20°C or-60°C /+60°C		T160°C	
100 W Sodium vapor	-20°C or-60°C/+40°C	T3	T140°C	N.C
	-20°C or-60°C /+60°C		T160°C	
25 W Xenon flash	-20°C or-60°C/+40°C	T6	T85°C	N.C
	-20°C or-60°C /+60°C			
23 W Fluorescent	-20°C or-60°C/+40°C	T6	T85°C	N.C
	-20°C or-60°C /+60°C			
Xenon 2J	-20°C or-60°C/+40°C	T6	T85°C	N.C
	-20°C or-60°C /+60°C			
Maxixenon 2J	-20°C or-60°C/+40°C	T6	T85°C	N.C
	-20°C or-60°C /+60°C			
Maxixenon 6J	-20°C or-60°C/+40°C	T6	T85°C	N.C
	-20°C or-60°C /+60°C			

N.C: Not Concerned

Table 3: Type EVAC200…LED or EVAC201…LED or EVAC201 L* or EVAC201 L*-C*				
Type and maximum power of lamp	**Ambient temperature range**	**Concerned explosive atmosphere**		**Cable temperature**
		Gas	**Dust**	
Type EVAC200…LED or EVAC201…LED : 48W LED	-20°C or-60°C/+40°C	T5	T85°C	N.C
	-20°C or-60°C /+60°C	T4	T105°C	90°C
Type EVAC201 L*-C1 : COB max 25 W	-20°C or-60°C/+40°C	T6	T85°C	N.C
	-20°C or-60°C/+55°C	T5	T100°C	N.C
Type EVAC201 L*-C2 : COB max 37 W	-20°C or-60°C/+60°C	T4	T135°C	N.C

N.C: Not Concerned

Table 4: Type EVAC300… or 301…				
Type and maximum power of lamp	**Ambient temperature range**	**Concerned explosive atmosphere**		**Cable temperature**
		Gas	**Dusts**	
300 W Incandescent	-20°C or-60°C/+40°C	T4	T135°C	95°C
	-20°C or-60°C /+60°C	T3	T160°C	120°C
250 W Halogen	-20°C or-60°C/+40°C	T4	T135°C	95°C
	-20°C or-60°C /+60°C	T3	T160°C	120°C
250 W Sodium vapor	-20°C or-60°C/+40°C	T3	T160°C	N.C
	-20°C or-60°C /+60°C		T190°C	
250 W Metal halide	-20°C or-60°C/+40°C	T3	T140°C	N.C
	-20°C or-60°C /+60°C		T160°C	
250 W Blended light	-20°C or-60°C/+40°C	T3	T160°C	95°C
	-20°C or-60°C /+60°C		T190°C	120°C
150 W Metal halide	-20°C or-60°C/+40°C	T4	T135°C	N.C
	-20°C or-60°C /+60°C	T3	T160°C	
150 W Sodium vapor	-20°C or-60°C/+40°C	T4	T135°C	N.C
	-20°C or-60°C /+60°C			
25 W Rotallarm	-20°C or-60°C/+40°C	T6	T85°C	N.C
	-20°C or-60°C /+60°C			
3 x 18W Fluorescent	-20°C or-60°C/+40°C	T6	T85°C	N.C
	-20°C or-60°C /+60°C			

N.C: Not Concerned

Table 5: Type EVAC500… or 501…				
Type and maximum power of lamp	**Ambient temperature range**	**Concerned explosive atmosphere**		**Cable temperature**
		Gas	**Dusts**	
500 W Incandescent	-20°C or-60°C/+40°C	T3	T160°C	120°C
	-20°C or-60°C /+60°C		T190°C	140°C
500 W Blended light	-20°C or-60°C/+40°C	T2	T205°C	140°C
	-20°C or-60°C /+60°C		T225°C	160°C
400 W Mercury vapor	-20°C or-60°C/+40°C	T3	T190°C	95°C
	-20°C or-60°C /+60°C	N.A	N.A	N.A
400 W Sodium vapor	-20°C or-60°C/+40°C	T3	T190°C	85°C
	-20°C or-60°C /+60°C	N.A	N.A	N.A
400 W Metal halide	-20°C or-60°C/+40°C	T3	T160°C	N.C
	-20°C or-60°C /+60°C		T190°C	85°C
250 W Mercury vapor	-20°C or-60°C/+40°C	T3	T160°C	N.C
	-20°C or-60°C /+60°C		T190°C	85°C
3 x 36W Fluorescent	-20°C or-60°C/+40°C	T6	T85°C	N.C
	-20°C or-60°C /+60°C	T5		
60 W Fixed or flashing LED	-20°C or-60°C/+40°C	T6	T85°C	NC
	-20°C or-60°C /+60°C	T5		
250 W Sodium vapor	-20°C or-60°C/+40°C	T3	T160°C	95°C
	-20°C or-60°C /+60°C			
250 W Metal halide	-20°C or-60°C/+40°C	T4	T135°C	95°C
	-20°C or-60°C /+60°C	T3		

N.C : Not Concerned - N.A : Not authorized

Table 6: Type EVAC500…LED or EVAC501…LED or EVAC501 L* or EVAC501 L*-C*				
Type and maximum power of lamp	**Ambient temperature range**	**Concerned explosive atmosphere**		**Cable temperature**
		Gas	**Dust**	
Type EVAC500…LED or EVAC501…LED or EVAC501 L*: 48 W LED	-20°C or-40°C/+40°C	T6	T95°C	N.C
	-20°C or-40°C /+60°C	T5		
Type EVAC500…LED or EVAC501…LED or EVAC501 L*: 96 W LED	-20°C or-40°C/+40°C	T4	T135°C	N.C
	-20°C or-40°C /+60°C			
Type EVAC501 L*-C3: COB max 60 W **Type EVAC501 L*-C4:** COB max 88 W	-20°C or-40°C/+55°C	T4	T135°C	N.C
	-20°C or-40°C /+60°C			75°C

N.C : Not Concerned