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

Certificate No.: IECEx INE 18.0007X

Issue No: 0

Certificate history:
Issue No. 0 (2018-07-30)

Status: **Current**

Date of Issue: **2018-07-30**

Applicant: **FEAM**
Via Mario Pagano, 3
I - 20090 Trezzano Sul Naviglio
Italy

Equipment: **Sockets and plugs series CPSC***/CPH*** and series FSQCA***-FSQC***/BPA*****

Optional accessory:

Type of Protection: **db, tb**

Marking:

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 the Annex of the certificate.

Approved for issue on behalf of the IECEx Certification Body: Olivier COTTIN

Position: Head of Equipment and Corporate Services Unit

Signature:
(for printed version)

Date: 2018.07.30

ATMOSPHERES EXPLOSIVES Certifié IECEx INERIS IECEx Certified EXPLOSIVE ATMOSPHERES

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.

Certificate issued by:

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

INERIS

IECEx Certificate of Conformity

Certificate No:	IECEx INE 18.0007X	Issue No: 0
Date of Issue:	2018-07-30	Page 2 of 4
Manufacturer:	**FEAM** Via Mario Pagano, 3 I - 20090 Trezzano Sul Naviglio **Italy**	

Additional Manufacturing location(s):

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:

IEC 60079-0 : 2011 Edition:6.0	Explosive atmospheres - Part 0: General requirements
IEC 60079-1 : 2014-06 Edition:7.0	Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
IEC 60079-31 : 2013 Edition:2	Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"

*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/ExTR18.0007/00

Quality Assessment Report:

IT/CES/QAR09.0003/08

IECEx Certificate of Conformity

Certificate No: IECEx INE 18.0007X Issue No: 0

Date of Issue: 2018-07-30 Page 3 of 4

Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

The plugs and sockets Series CPSC***/CPH*** and series FSQCA***-FSQC***/BPA*** are suitable for explosive gas atmospheres of Group IIC protected by "Ex db" and for dust atmospheres Group IIIC protected by "Ex tb".
The bodies of the socket and the plugs are made in aluminium alloy. The internal connector is made in polypropylene or BMC and closed by a sealed joint. All the pins are made in brass. The plugs and sockets are provided silicon O-ring ensuring the IP degrees of protection.
The socket enclosure includes a switch mechanically interlocked with the plug : when the plug and the socket are separated, only the input terminals of the internal switch of the flameproof socket could be under voltage. The energizing up of the equipment is done by inserting the plug and by a rotating movement which acts on the internal switch, avoiding the formation of arcs or sparks between cavities and pins. The electrical circuit is closed only when the plug and the socket are correctly assembled.

When assembled, the equipment get the degrees of protection IP66 in accordance with IEC 60529. The socket is equipped with an aluminium cap complete with anti-loss chain to ensure the degrees of protection IP66 of the socket when separated from the plug . The socket get the degree of protection IP6x without this cap.

SPECIFIC CONDITIONS OF USE: YES as shown below:

- The flameproof joints have different values from those specified in the tables of the IEC 60079-1 standard. For any repairs, to contact the manufacturer.

The other specific conditions are stipulated in the user manual.

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Date of Issue: **2018-07-30** Page 4 of 4

Additional information:

Annex:

IECEx INE 18.0007X-00_Annex.pdf

IECEx Certificate of Conformity

Certificate No.: IECEx INE 18.0007X

Issue No.: 0

Annex: IECEx INE 18.0007X-00_Annex.pdf

PARAMETERS RELATING TO THE SAFETY

Rated supply voltage : From 12Vac/dc to 500 Vac/dc (See Table 1,2 and 3 for details)

Maximum current : 25 A from series CPSC***/CPH*** (See Table 1 for details) or 63A for series FSQCA***/BPA*** and FSQC***/BPA*** (See Table 2 and 3 for details)

Rated frequency : 0/50/60 Hz

*TABLE 1: INTERLOCKED SOCKET AND PLUGS SERIES CPSC***/CPH*** WITH NOT AUTOMATIC CIRCUIT BREAKER 16-25A*

SOCKET TYPE	PLUG TYPE	POLES	VOLTAGE	CURRENT
CPSC 212	CPH 212	2P+T (PE)	12V	16A
CPSC 224	CPH 224	2P+T (PE)	24V	16A
CPSC 212-25A	CPH 212-25A	2P+T (PE)	12V	25A
CPSC 224-25A	CPH 224-25A	2P+T (PE)	24V	25A
CPSC 248	CPH 248	2P+T (PE)	48V	16A
CPSC 248-25A	CPH 248-25A	2P+T (PE)	48V	25A
CPSC 211	CPH 211	2P+T (PE)	110/130V	16A
CPSC 211-25A	CPH 211-25A	2P+T (PE)	110/130V	25A
CPSC 222	CPH 222	2P+T (PE)	220/250V	16A
CPSC 222-25A	CPH 222-25A	2P+T (PE)	220/250V	25A
CPSC 338	CPH 338	3P+T (PE)	380/500V	16A
CPSC 338-25A	CPH 338-25A	3P+T (PE)	380/500V	25A
CPSC 438	CPH 438	4P+T (PE)	380/500V	16A
CPSC 438-25A	CPH 438-25A	4P+T (PE)	380/500V	25A

*TABLE 2: INTERLOCKED SOCKET AND PLUGS SERIES FSQCA***/BPA*** WITH CIRCUIT BREAKER 32-63A*

SOCKET TYPE	PLUG TYPE	POLES	VOLTAGE	CURRENT
FSQCA 235	BPA 235	2P+T (PE)	220/250V	32A
FSQCA 335	BPA 335	3P+T (PE)	380/415V	32A
FSQCA 435	BPA 435	4P+T (PE)	380/415V	32A
FSQCA 260	BPA 260	2P+T (PE)	220/250V	63A
FSQCA 360	BPA 360	3P+T (PE)	380/415V	63A
FSQCA 460	BPA 460	4P+T (PE)	380/415V	63A

*TABLE 3: INTERLOCKED SOCKET AND PLUGS FSQC***/BPA*** WITH NOT AUTOMATIC CIRCUIT BREAKER 32-63A*

SOCKET TYPE	PLUG TYPE	POLES	VOLTAGE	CURRENT
FSQC 235	BPA 235	2P+T (PE)	220/250V	32A
FSQC 335	BPA 335	3P+T (PE)	380/500V	32A
FSQC 435	BPA 435	4P+T (PE)	380/500V	32A
FSQC 260	BPA 260	2P+T (PE)	220/250V	63A
FSQC 360	BPA 360	3P+T (PE)	380/500V	63A
FSQC 460	BPA 460	4P+T (PE)	380/500V	63A

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Annex: IECEx INE 18.0007X-00_Annex.pdf

The plugs and sockets are intended to be used in range of ambient temperatures from -60°C to +60°C depending on the versions and the temperatures classes as defined in the following table :

TABLE 4: TEMPERATURE CLASSES AND RANGE OF AMBIENT TEMPERATURE

Ambient temperature range	Series *CPSC***/CPH****		Series *FSQCA***- FSQC***/BPA****	
	Temperature Class for Gas /Dust	Tcable	Temperature Class for Gas /Dust	Tcable
From -60°C to +40°C	T6 / T85°C	75°C	T6 / T85°C	80°C
From -60°C to +55°C	T5 / T100°C	95°C	T5 / T100°C	95°C
From -60°C to +60°C	T5 / T100°C	95°C	T4 / T135°C	100°C

MARKING

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

1- On the sockets Series CPSC*** or Series FSQCA***- FSQC*** :

- FEAM
- I - 20090 Trezzano sul Naviglio (MI)
- CPSC*** or FSQCA*** or FSQC*** (1)
- IECEx INE 18.0007X
- (Serial number)
- Ex db IIC T(2) Gb
- Ex tb IIIC T(3) Db IP66
- ...°C < Tamb < ...°C (4)
- T.Cable: (5)
- WARNINGS : DO NOT OPEN THE SOCKET ENCLOSURE AND THE PLUG ENCLOSURE IF AN EXPLOSIVE ATMOSPHERE MAY BE PRESENT

(1) Type is completed by numbers and/or letters corresponding to alternatives of execution.
(2) T6 or T5 or T4 according to the versions as defined in Table 4
(3) T85°C or T100°C or T135°C according to the versions as defined in Table 4
(4) Ambient temperature range according to the Table 4 when different from -20°C to +40°C
(5) "Tcable" according to the versions and the ambient temperature as defined in Table 4

2- On the plugs Series CPH*** or BPA***:

- FEAM
- I - 20090 Trezzano sul Naviglio (MI)
- CPH*** or BPA*** (1)
- IECEx INE 18.0007X
- (Serial number)
- Ex db IIC T(2) Gb
- Ex tb IIIC T(3) Db IP66
- ...°C < Tamb < ...°C (4)
- T.Cable: (5)

IECEx Certificate of Conformity

(1) Type is completed by numbers and/or letters corresponding to alternatives of execution.
(2) T6 or T5 or T4 according to the versions as defined in Table 4
(3) T85°C or T100°C or T135°C according to the versions as defined in Table 4
(4) Ambient temperature range according to the Table 4 when different from -20°C to +40°C
(5) "Tcable" according to the versions and the ambient temperature as defined in Table 4

ROUTINE EXAMINATIONS AND TESTS

In accordance with clause 16.1 of the IEC 60079-1 standard each piece of equipment has to have successfully passed, before delivery, an overpressure test at 1.5 times the reference pressure for -60°C of a period comprised between 10 and 60 seconds under:

- 24.6 bar on the plugs type CPH*** or BPA***
- 20.9 bar on the sockets type CPSC***, FSQCA*** or FSQC***

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 18.0007X**	Page 1 of 4	Certificate history:
Status:	**Current**	Issue No: 1	Issue 0 (2018-07-30)
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:	**Sockets and plugs series CPSC***/CPH*** and series FSQCA***-FSQC***/BPA***		
Optional accessory:			
Type of Protection:	**db, tb**		
Marking:	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 the Annex of the certificate.		

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

2022-01-07

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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

Certificate No.: **IECEx INE 18.0007X** Page 2 of 4

Date of issue: 2022-01-06 Issue No: 1

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

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/ExTR18.0007/00 FR/INE/ExTR18.0007/01

Quality Assessment Report:

IT/CES/QAR09.0003/14

IECEx Certificate of Conformity

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

The plugs and sockets Series CPSC***/CPH*** and series FSQCA***-FSQC***/BPA*** are suitable for explosive gas atmospheres of Group IIC protected by “Ex db” and for dust atmospheres Group IIIC protected by “Ex tb”.
The bodies of the socket and the plugs are made in aluminium alloy. The internal connector is made in polypropylene or BMC and closed by a sealed joint. All the pins are made in brass. The plugs and sockets are provided silicon O-ring ensuring the IP degrees of protection.
The socket enclosure includes a switch mechanically interlocked with the plug : when the plug and the socket are separated, only the input terminals of the internal switch of the flameproof socket could be under voltage. The energizing up of the equipment is done by inserting the plug and by a rotating movement which acts on the internal switch, avoiding the formation of arcs or sparks between cavities and pins. The electrical circuit is closed only when the plug and the socket are correctly assembled.

When assembled, the equipment get the degrees of protection IP66 in accordance with IEC 60529. The socket is equipped with an aluminium cap complete with anti-loss chain to ensure the degrees of protection IP66 of the socket when separated from the plug . The socket get the degree of protection IP6x without this cap.

SPECIFIC CONDITIONS OF USE: YES as shown below:
- The flameproof joints have different values from those specified in the tables of the IEC 60079-1 standard. For any repairs, to contact the manufacturer.

The other specific conditions are stipulated in the user manual.

IECEx Certificate of Conformity

DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)
For the issue n°01:

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

Annex:

IECEx INE 18.0007X-01_Annex.pdf

IECEx Certificate of Conformity

Certificate No.: IECEx INE 18.0007X

Issue No.: 01

Annex: IECEx INE 18.0007X-01_Annex.pdf

PARAMETERS RELATING TO THE SAFETY

Rated supply voltage : From 12Vac/dc to 500 Vac/dc (See Table 1,2 and 3 for details)
Maximum current : 25 A from series CPSC***/CPH*** (See Table 1 for details)
or 63A for series FSQCA***/BPA*** and FSQC***/BPA*** (See Table 2 and 3 for details)
Rated frequency : 0/50/60 Hz

TABLE 1: ***INTERLOCKED SOCKET AND PLUGS SERIES CPSC***/CPH*** WITH NOT AUTOMATIC CIRCUIT BREAKER 16-25A***

SOCKET TYPE	PLUG TYPE	POLES	VOLTAGE	CURRENT
CPSC 212	CPH 212	2P+T (PE)	12V	16A
CPSC 224	CPH 224	2P+T (PE)	24V	16A
CPSC 212-25A	CPH 212-25A	2P+T (PE)	12V	25A
CPSC 224-25A	CPH 224-25A	2P+T (PE)	24V	25A
CPSC 248	CPH 248	2P+T (PE)	48V	16A
CPSC 248-25A	CPH 248-25A	2P+T (PE)	48V	25A
CPSC 211	CPH 211	2P+T (PE)	110/130V	16A
CPSC 211-25A	CPH 211-25A	2P+T (PE)	110/130V	25A
CPSC 222	CPH 222	2P+T (PE)	220/250V	16A
CPSC 222-25A	CPH 222-25A	2P+T (PE)	220/250V	25A
CPSC 338	CPH 338	3P+T (PE)	380/500V	16A
CPSC 338-25A	CPH 338-25A	3P+T (PE)	380/500V	25A
CPSC 438	CPH 438	4P+T (PE)	380/500V	16A
CPSC 438-25A	CPH 438-25A	4P+T (PE)	380/500V	25A

TABLE 2: ***INTERLOCKED SOCKET AND PLUGS SERIES FSQCA***/BPA*** WITH CIRCUIT BREAKER 32-63A***

SOCKET TYPE	PLUG TYPE	POLES	VOLTAGE	CURRENT
FSQCA 235	BPA 235	2P+T (PE)	220/250V	32A
FSQCA 335	BPA 335	3P+T (PE)	380/415V	32A
FSQCA 435	BPA 435	4P+T (PE)	380/415V	32A
FSQCA 260	BPA 260	2P+T (PE)	220/250V	63A
FSQCA 360	BPA 360	3P+T (PE)	380/415V	63A
FSQCA 460	BPA 460	4P+T (PE)	380/415V	63A

TABLE 3: ***INTERLOCKED SOCKET AND PLUGS FSQC***/BPA*** WITH NOT AUTOMATIC CIRCUIT BREAKER 32-63A***

SOCKET TYPE	PLUG TYPE	POLES	VOLTAGE	CURRENT
FSQC 235	BPA 235	2P+T (PE)	220/250V	32A
FSQC 335	BPA 335	3P+T (PE)	380/500V	32A
FSQC 435	BPA 435	4P+T (PE)	380/500V	32A
FSQC 260	BPA 260	2P+T (PE)	220/250V	63A
FSQC 360	BPA 360	3P+T (PE)	380/500V	63A
FSQC 460	BPA 460	4P+T (PE)	380/500V	63A

The plugs and sockets are intended to be used in range of ambient temperatures from -60°C to +60°C depending on the versions and the temperatures classes as defined in the following table:

TABLE 4: ***TEMPERATURE CLASSES AND RANGE OF AMBIENT TEMPERATURE***				
Ambient temperature range	**Series *CPSC***/CPH*****		**Series *FSQCA***- FSQC***/BPA*****	
	Temperature Class for Gas /Dust	**Tcable**	**Temperature Class for Gas /Dust**	**Tcable**
From -60°C to +40°C	T6 / T85°C	75°C	T6 / T85°C	80°C
From -60°C to +55°C	T5 / T100°C	95°C	T5 / T100°C	95°C
From -60°C to +60°C	T5 / T100°C	95°C	T4 / T135°C	100°C

MARKING

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

1- On the sockets Series CPSC*** or Series FSQCA***- FSQC*** :

- BARTEC FN (1)
- I - 20090 Trezzano sul Naviglio (MI)
- CPSC*** or FSQCA*** or FSQC*** (2)
- IECEx INE 18.0007X
- (Serial number)
- Ex db IIC T(3) Gb
- Ex tb IIIC T(4) Db IP66
- …°C < Tamb < …°C (5)
- T.Cable: (6)
- WARNINGS : DO NOT OPEN THE SOCKET ENCLOSURE AND THE PLUG ENCLOSURE IF AN EXPLOSIVE ATMOSPHERE MAY BE PRESENT

(1) Optional Brands “BARTEC FEAM” or “BARTEC NASP” can be added in the marking with the sentence “manufactured by BARTEC FN”
(2) Type is completed by numbers and/or letters corresponding to alternatives of execution.
(3) T6 or T5 or T4 according to the versions as defined in Table 4
(4) T85°C or T100°C or T135°C according to the versions as defined in Table 4
(5) Ambient temperature range according to the Table 4 when different from –20°C to +40°C
(6) “Tcable” according to the versions and the ambient temperature as defined in Table 4

2- On the plugs Series CPH*** or BPA***:

- BARTEC FN (1)
- I - 20090 Trezzano sul Naviglio (MI)
- CPH*** or BPA*** (2)
- IECEx INE 18.0007X
- (Serial number)
- Ex db IIC T(3) Gb
- Ex tb IIIC T(4) Db IP66
- …°C < Tamb < …°C (5)
- T.Cable: (6)

(1) Optional Brands “BARTEC FEAM” or “BARTEC NASP” can be added in the marking with the sentence “manufactured by BARTEC FN”
(2) Type is completed by numbers and/or letters corresponding to alternatives of execution.
(3) T6 or T5 or T4 according to the versions as defined in Table 4
(4) T85°C or T100°C or T135°C according to the versions as defined in Table 4
(5) Ambient temperature range according to the Table 4 when different from –20°C to +40°C
(6) “Tcable” according to the versions and the ambient temperature as defined in Table 4

ROUTINE EXAMINATIONS AND TESTS

In accordance with clause 16.1 of the IEC 60079-1 standard each piece of equipment has to have successfully passed, before delivery, an overpressure test at 1.5 times the reference pressure for -60°C of a period comprised between 10 and 60 seconds under:

- 24.6 bar on the plugs type CPH*** or BPA***
- 20.9 bar on the sockets type CPSC***, FSQCA*** or FSQC***