



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 13.0071X** Page 1 of 4 [Certificate history:](#)
Issue 0 (2019-04-10)

Status: **Current** Issue No: 1

Date of Issue: 2021-12-22

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

Equipment: **Enclosures type EJC**

Optional accessory:

Type of Protection: **db, db [ia], db [ib], db [ic], tb, tb [ia], tb[ib] or tb [ic]**

Marking: Ex db IIC T6 or T5 or T4 or T3 Gb or
Ex db [ia IIA or IIB or IIC Ga] IIC T6 or T5 or T4 or T3 Gb or
Ex db [ib IIA or IIB or IIC] IIC T6 or T5 or T4 or T3 Gb or
Ex db [ic IIA or IIB or IIC Gc] IIC T6 or T5 or T4 or T3 Gb
and/or
Ex tb IIIC T85°C or T100°C or T135°C or T200°C Db or
Ex tb [ia Da] IIIC T85°C or T100°C or T135°C or T200°C Db or
Ex tb [ib] IIIC T85°C or T100°C or T135°C or T200°C Db or
Ex tb [ic Dc] IIIC T85°C or T100°C or T135°C or T200°C Db
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

2021-12-22

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

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 www.iecex.com or use of this QR Code.



Certificate issued by:

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





IECEX Certificate of Conformity

Certificate No.: **IECEX INE 13.0071X**

Page 2 of 4

Date of issue: 2021-12-22

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 60079-11:2011](#) Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
Edition:6.0

[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/ExTR13.0071/00](#)

[FR/INE/ExTR13.0071/01](#)

Quality Assessment Report:

[IT/CES/QAR09.0003/14](#)



IECEX Certificate of Conformity

Certificate No.: **IECEX INE 13.0071X**

Page 3 of 4

Date of issue: 2021-12-22

Issue No: 1

EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

The metallic enclosures made in aluminum alloy, stainless steel, carbon steel or cast iron are covered by the certificate IECEX INE 13.0085U and are intended for gas explosive atmosphere of Group IIC and dust explosive atmosphere of Group IIIC.

These enclosures can have a blind cover or provided with a glass window. The enclosures can be fitted with tubes of maximum diameter 3" and maximum length 200 mm in order to assembly two flameproof enclosures separated by a certified sealing fitting in accordance with the drawing specified in the descriptive documents.

Enclosures could be fitted with accessories covered by a IECEX component certificates. The list of the components is defined in Annex. The accessories covered by the component certificates IECEX INE 13.0073U could be fitted without their marking due to the fact that the drawings of these components are also listed in the certification file.

They can contain electrical 'NIS' devices and also 'IS' element covered by separated certificates.

Three different types of batteries defined in the technical documentation could be installed inside the enclosure.

As specified in the Annex E of the manufacturer's descriptive documents, a specific configuration of the enclosure type EJC30 can contain:

- A pack batteries using cells type "MP 174565" from SAFT and their associated protective devices
- GPS, GSM/GPRS antennas and relevant receiving apparatus.

These enclosures get the degrees of protection IP66 according to the IEC 60529 standard.

SPECIFIC CONDITIONS OF USE: YES as shown below:

- The cover must be fixed with screws in stainless steel AISI 304 or 316 with quality higher or equal to A2-70 or A4-70 in accordance with the requirements of the manufacturer.
- During the installation, the user will take into consideration that the windows of the enclosures underwent only a shock corresponding to an energy of a low risk at 2J.
- During the installation, the user will take into consideration that the pilot light EFL*PC*and the covers with window(s) underwent only a shock corresponding to an energy of a low risk at 2J.

When protected by "Ex db":

- 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 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.



IECEX Certificate of Conformity

Certificate No.: **IECEX INE 13.0071X**

Page 4 of 4

Date of issue: 2021-12-22

Issue No: 1

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 13.0071X-01_Annex.pdf](#)



IECEX Certificate of Conformity

Certificate No.: IECEx INE 13.0071X

Issue No.: 01

Page 1 of 5

Annex: IECEx INE 13.0071X-01_Annex.pdf

PARAMETERS RELATING TO THE SAFETY

These enclosures are intended to be used in range of ambient temperatures from -60°C or -40°C or -20°C to +40°C or +50°C or +60°C depending on the type of enclosures EJC (see Ex component certificate IECEx INE 13.0085U) and accessories fitted on the enclosures (see list of Ex component certificates in Table 4)

For enclosure without intrinsic safety element:

Maximum electrical parameters:

- Maximum supply voltage: 13 kVac or 750 Vdc
- Maximum current: 2 000 A
- Rated frequency: 0/50/60 Hz
- Maximum dissipated powers are defined in the Table 1 for enclosures without window and Table 2 for enclosures with window(s).

For enclosure with intrinsic safety element:

The ambient temperature must be in accordance with the IS components installed inside the enclosures (Barriers, terminals...)

Maximum electrical parameters:

- Maximum supply voltage for Non 'IS' elements: 1000 Vac or Vdc
- Maximum supply voltage for "IS" elements: 250 V
- Maximum dissipated powers are defined in the Table 1 or 2 for enclosures with thermal probes.
- Maximum dissipated powers are defined in the Table 3 for enclosures without thermal probes.

The maximum threshold of thermal probe shall be:

Ambient temperature of the enclosure	Ambient temperature of the IS element	Threshold of release of the thermal probe
40°C	≤ 60°C	55°C ± 5°C
	≤ 70°C	65°C ± 5°C
50°C	≤ 60°C	55°C ± 5°C
	≤ 70°C	65°C ± 5°C
	≤ 80°C	75°C ± 5°C
60°C	≤ 70°C	65°C ± 5°C
	≤ 80°C	75°C ± 5°C

MARKING

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

A - Enclosures EJC without intrinsic safety element:

- BARTEC FN (****)
- I – 20090 Trezzano Sul Naviglio
- EJC... (*)
- IECEx INE 13.0071X
- (Serial number)
- Ex db IIC T6...T3 Gb
- Ex tb IIIC T85°C...T200°C Db IP66
- ...°C < Tamb < ...°C (**)
- T.Cable : (***)
- Cable entry: see instructions
- WARNINGS: DO NOT OPEN IF AN EXPLOSIVE ATMOSPHERE IS PRESENT



IECEX Certificate of Conformity

Certificate No.: IECEx INE 13.0071X

Issue No.: 01

Page 2 of 5

Annex: IECEx INE 13.0071X-01_Annex.pdf

B - Enclosures EJC with intrinsic safety element :

- BARTEC FN (****)
 - I – 20090 Trezzano Sul Naviglio
 - EJC... (*)
 - IECEx INE 13.0071X
 - (Serial number)
 - Ex db [Ia IIA ou IIB ou IIC Ga] IIC T6...T3Gb
 - Ex tb [Ia Da] IIIC T85°C...T200°C Db IP66
or
 - Ex db [Ib IIA ou IIB ou IIC] IIC T6...T3Gb
 - Ex tb [Ib] IIIC T85°C...T200°C Db IP66
or
 - Ex db [Ic IIA ou IIB ou IIC Gc] IIC T6...T3Gb
 - Ex tb [Ic Dc] IIIC T85°C...T200°C Db IP66
 - ...°C < Tamb < ...°C (**)
 - T.Cable : (***)
 - Cable entry: see instructions
 - WARNINGS: DO NOT OPEN IF AN EXPLOSIVE ATMOSPHERE IS PRESENT
- (*) Type is completed by number and/or letters corresponding to size of the enclosure
(**) See parameters relating to the safety.
(***) See tables 1, 2 or 3
(****) Optional Brands "BARTEC FEAM" or "BARTEC NASP" can be added in the marking with the sentence "manufactured by BARTEC FN"

ROUTINE EXAMINATIONS AND TESTS

The routine examinations and tests are covered by the EJC Ex component certificate IECEx INE 13.0085U and the Ex component certificates of accessories that could be fitted on the enclosures excepted in the following case:

- For the enclosures EJC61 and EJC63 fitted with line bushings covered by certificates IECEx EPS 13.0045U and IECEx EPS 14.0020U foreseen for Tamb = -60°C:
In accordance with clause 16.6 of the IEC 60079-1 standard, the line bushing defined above that has undergone a static type test at 3 times the reference pressure under 48.6 bar, the routine overpressure test could be replaced by a batch test according the criteria specified in this clause. The samples of the production batch must have successfully passed an overpressure test, of a period comprised between 10 and 60 seconds under 18.8 bar.



IECEX Certificate of Conformity

Certificate No.: IECEx INE 13.0071X

Issue No.: 01

Page 3 of 5

Annex: IECEx INE 13.0071X-01_Annex.pdf

TABLES

TABLE 1: Maximum dissipated power for EJC without windows and with or without IS barrier protected by thermal probes (W)

Temperature class	T6/T85°C			T5/T100°C		
Ambient temperature	+40°C	+50°C	+60°C	+40°C	+50°C	+60°C
EJC08	56	41	26	79	63	48
EJC14	53	38	24	74	60	46
EJC21	71	52	33	100	81	62
EJC22	74	54	34	105	85	64
EJC23	91	66	42	128	103	79
EJC30	120	87	55	169	136	104
EJC31	159	116	73	224	181	138
EJC51	241	176	110	338	273	208
EJC61	418	305	193	586	474	362
EJC63	313	229	145	439	355	271
Allowed operators from IECEx INE 13.0073U	Operators with NBR, EPDM, LSR or MVQ gaskets and pilots lights EFL*PC*			Operators with EPDM, LSR or MVQ gaskets and pilots lights EFL*PC*		
Allowed accessories from IECEx TUN 12.0025U IECEX TUN 11.0038U IECEX EXA 13.0001U (1)	All, excepted valves who are allowed only for dust application.					
Allowed accessories from IECEx EXA 14.0004U IECEX EXA 14.0005U IECEX EXA 14.0006U	Can be fitted on all EJC					
Allowed bushing line from IECEx EPS 13.0045U (2) IECEX EPS 14.0020U (2)	Can be fitted on all EJC					
TCABLE	N/A			95°C		

Temperature class	T4/T135°C			T3/T200°C		
Ambient temperature	+40°C	+50°C	+60°C	+40°C	+50°C	+60°C
EJC08	124	109	95	124	109	95
EJC14	117	103	89	117	103	89
EJC21	157	139	121	157	139	121
EJC22	165	146	126	165	146	126
EJC23	201	178	154	201	178	154
EJC30	265	234	203	265	234	203
EJC31	352	311	270	352	311	270
EJC51	533	470	408	533	470	408
EJC61	867	768	669	867	768	669
EJC63	650	576	501	650	576	501
Allowed operators from IECEx INE 13.0073U	Operators with EPDM, LSR or MVQ gaskets			Operators with LSR or MVQ gaskets		
Allowed accessories from IECEx TUN 12.0025U IECEX TUN 11.0038U IECEX EXA 13.0001U (1)	All, excepted valves who are allowed only for dust application.			-		
Allowed accessories from IECEx EXA 14.0004U IECEX EXA 14.0005U IECEX EXA 14.0006U	Can be fitted on all EJC					
Allowed bushing line from IECEx EPS 13.0045U (2) IECEX EPS 14.0020U (2)	-					
TCABLE	110°C			110°C		

- (1) The components covered by the certificate IECEx EXA 13.0001U can be only used in a minimum ambient temperature until -55°C.
 (2) Only threaded type of bushings is allowed.



IECEx Certificate of Conformity

Certificate No.: IECEx INE 13.0071X

Issue No.: 01

Page 4 of 5

Annex: IECEx INE 13.0071X-01_Annex.pdf

TABLE 2: Maximum dissipated power for EJC with windows and with or without IS barrier protected by thermal probes (W)

Temperature class	T6/T85°C			T5/T100°C		
	+40°C	+50°C	+60°C	+40°C	+50°C	+60°C
Ambient temperature						
EJC08	56	41	26	79	63	48
EJC14	53	38	24	74	60	46
EJC21	71	52	33	100	81	62
EJC22	74	54	34	105	85	64
EJC23	91	66	42	128	103	79
EJC30	120	87	55	169	136	104
EJC31	159	116	73	224	181	138
EJC51	241	176	110	338	273	208
EJC61	418	305	193	586	474	362
EJC63	313	229	145	439	355	271
Allowed operators from IECEx INE 13.0073U	Operators with NBR, EPDM, LSR or MVQ gaskets and pilots lights EFL*PC*			Operators with EPDM, LSR or MVQ gaskets and pilots lights EFL*PC*		
Allowed accessories from IECEx TUN 12.0025U IECEx TUN 11.0038U IECEx EXA 13.0001U (1)	All, excepted valves who are allowed only for dust application.					
Allowed accessories from IECEx EXA 14.0004U IECEx EXA 14.0005U IECEx EXA 14.0006U	Can be fitted on all EJC					
Allowed bushing line from IECEx EPS 13.0045U (2) IECEx EPS 14.0020U (2)	Can be fitted on all EJC					
TCABLE	N/A			95°C		

Temperature class	T4/T135°C			T3/T200°C		
	+40°C	+50°C	+60°C	+40°C	+50°C	+60°C
Ambient temperature						
EJC08	124	109	95	124	109	95
EJC14	117	103	89	117	103	89
EJC21	157	139	121	157	139	121
EJC22	165	146	126	165	146	126
EJC23	201	178	154	201	178	154
EJC30	265	234	203	265	234	203
EJC31	352	311	270	352	311	270
EJC51	533	470	408	533	470	408
EJC61	867	768	669	867	768	669
EJC63	650	576	501	650	576	501
Allowed operators from IECEx INE 13.0073U	Operators with EPDM, LSR or MVQ gaskets			Operators with LSR or MVQ gaskets		
Allowed accessories from IECEx TUN 12.0025U IECEx TUN 11.0038U IECEx EXA 13.0001U (1)	All, excepted valves who are allowed only for dust application.			-		
Allowed accessories from IECEx EXA 14.0004U IECEx EXA 14.0005U IECEx EXA 14.0006U	Can be fitted on all EJC					
Allowed bushing line from IECEx EPS 13.0045U (2) IECEx EPS 14.0020U (2)	-					
TCABLE	110°C			110°C		

- (1) The components covered by the certificate IECEx EXA 13.0001U can be only used in a minimum ambient temperature until -55°C.
- (2) Only threaded type of bushings is allowed.



IECEX Certificate of Conformity

Certificate No.: IECEx INE 13.0071X

Issue No.: 01

Page 5 of 5

Annex: IECEx INE 13.0071X-01_Annex.pdf

TABLE 3: Maximum dissipated power for EJC with intrinsic safety barrier without thermal probes

Type of enclosure	Ambient temperature of the intrinsic safety element	T6/T85°C for ambient (W)			Type of enclosure	Ambient temperature of the intrinsic safety element	T6T/85°C for ambient (W)		
		40°C	50°C	60°C			40°C	50°C	60°C
EJC08	60°C	5	NA	NA	EJC30	60°C	11	NA	NA
	70°C	13	5	NA		70°C	28	11	NA
	80°C	21	13	5		80°C	45	28	11
EJC14	60°C	5	NA	NA	EJC31	60°C	15	NA	NA
	70°C	12	5	NA		70°C	37	15	NA
	80°C	20	12	5		80°C	59	37	15
EJC21	60°C	6	NA	NA	EJC51	60°C	22	NA	NA
	70°C	17	6	NA		70°C	56	22	NA
	80°C	27	17	6		80°C	90	56	22
EJC22	60°C	7	NA	NA	EJC61	60°C	52	NA	NA
	70°C	17	7	NA		70°C	107	52	NA
	80°C	28	17	7		80°C	163	107	52
EJC23	60°C	8	NA	NA	EJC63	60°C	39	NA	NA
	70°C	21	8	NA		70°C	80	39	NA
	80°C	34	21	8		80°C	122	80	39

TABLE 4: List of the components intended to be installed on the enclosures

Type of component	Certificate number	Editions of the standard
Enclosures	IECEX INE 13.0085U	IEC 60079-0:2011 IEC 60079-1:2014 IEC 60079-31:2013
Operators	IECEX INE 13.0073U	IEC 60079-0:2011 IEC 60079-1:2014 IEC 60079-31:2013
Accessories	IECEX TUN 12.0025U IECEX TUN 11.0038U IECEX EXA 13.0001U	IEC 60079-0:2011 IEC 60079-1:2007 (*) IEC 60079-31:2008 (*)
Accessories	IECEX EXA 14.0004U IECEX EXA 14.0005U IECEX EXA 14.0006U	IEC 60079-0:2011 IEC 60079-1:2007 (*) IEC 60079-31:2013
Line bushings	IECEX EPS 13.0045U	IEC 60079-0:2011 IEC 60079-1:2014
Line bushings	IECEX EPS 14.0020U	IEC 60079-0:2011 IEC 60079-1:2014 IEC 60079-7:2015

(*) Not concerned by the major technical changes of the last edition of the standards.