



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 ITS 23.0006X** Page 1 of 3 [Certificate history:](#)

Status: **Current** Issue No: 0

Date of Issue: 2023-07-31

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

Equipment: **Explosion and dust proof enclosure model EJBM***

Optional accessory: Breathing and draining valve, Operators and Line bushing (see details in the annex)

Type of Protection: **Ex db, Ex tb, [Ex ia]**

Marking: Ex db IIB+H2 Tx Gb
Ex tb IIIC Tx Db
Ex db [ia IIA or IIB or IIC Ga] IIA or IIB or IIB+H2 Tx Gb
Ex db [ib IIA or IIB or IIC Gb] IIA or IIB or IIB+H2 Tx Gb
Ex tb [ia Da] IIIC Tx Db
Ex tb [ib Db] IIIC Tx Db

IECEX ITS 23.0006X

Approved for issue on behalf of the IECEx
Certification Body:

R J Tunncliffe

Position:

Certification Officer

Signature:
(for printed version)

Date:
(for printed version)

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:

Intertek Testing & Certification Limited
ITS House, Cleeve Road
Leatherhead
Surrey, KT22 7SA
United Kingdom

intertek



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

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

FENEX
Via Carducci, 16
I - 34070 Moraro (GO)
Italy

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](#) Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
Edition:7.0

[IEC 60079-11:2023](#) Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
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 Report:

[GB/ITS/ExTR23.0004/00](#)

Quality Assessment Reports:

[IT/CES/QAR09.0003/15](#)

[IT/CES/QAR12.0006/10](#)



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EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

The EJBm enclosure is made with the enclosure made by Bartec F.N. that is IECEx certified, as component, with the following number IECEx ITS 23.0005U.

These enclosures can have a blind cover or provided with a glass window.

The cover is fixed by stainless steel screws A2-70 or A4-70.

Enclosures could be fitted with accessories covered by IECEx component certificates. The list of the components and the temperature classes are defined in the Annex.

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. Flameproof joints are not intended to be repaired by the customer. Please contact the manufacturer.
- The final user shall take into consideration that the windows of the enclosures EJBm and operator EFL*PC* underwent only a shock corresponding to an energy of a low risk at 2J and it shall protect against impact.
- The screws used for the assembly of the various parts of explosion-proof enclosures are ISO 4762 and must be of quality higher or equal to A2-70 or A4-70
- The equipment shall be installed so that the flanged joints are not within 20mm of a solid object that is not part of this equipment.
- When it is installed the line bushing 07-91 7 * - * * * * / *, provided adequate protection against strain relief.
- When drain valve model ECD is installed the IP66 rating is guaranteed only if the drain valve is in closed position, otherwise is IP6X
- See the user manual to minimize the risk of electrostatic charge.

Annex:

[Annex for IECEx Certificate of Conformity - IECEx ITS 23.0006X_1.pdf](#)



Annex to IECEx Certificate of Conformity

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Annex No. 1		

The flameproof enclosure EJBmX series could be fitted with accessories covered by IECEx component certificates in accordance with next table in the next table:

Table 1:

IECEX Certified Components on Which Conformance Depends					
Item	Description	Manufacturer	Type	Certificate No. / Standards*	Coding / Ratings
1	Empty flame proof enclosure	BARTEC F.N. S.R.L.	EJBm*	IECEX ITS 23.0005U IEC 60079-0:2017 7th ed. IEC 60079-1:2014, 7th ed. IEC 60079-31:2013 2nd ed	Ex db IIB+H2 Gb Ex tb IIIC Db
2	Breathing and draining valve	BARTEC F.N. S.R.L.	ECD****	IECEX EXA 14.0004U IEC 60079-0:2017 IEC 60079-1:2014 IEC 60079-7:2017 IEC 60079-31:2022	Ex db IIC Gb Ex eb IIC Gb Ex tb IIIC Db
3	Operators	BARTEC F.N. S.R.L.	PM10X, EFl*, EFP*, EFPL3 and EFL*PC*	IECEX INE 13.0073U IEC 60079-0:2017 7th ed. IEC 60079-1:2014, 7th ed. IEC 60079-31:2013 2nd ed.	Ex db IIC Gb or Ex db IIB+H2 Gb Ex tb IIIC Db IP66
4	Line bushing	BARTEC GmbH	07-91**- ****/****	IECEX-EPS13.0045U IEC 60079-0:2017 Ed.7, IEC60079-1:2014 Ed. 7	Ex db IIC Gb Ex db I Mb

Maximum power dissipation installable inside each flameproof enclosure shall be in accordance with next tables in function of specific case considered



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Maximum power dissipation for EJBMx with intrinsic safety barrier without thermal probes (Table 2)

		Maximum ambient temperature		
		+40°C	+50°C	+60°C
Max intrinsically safe barrier ambient temperature	EJBMx (size)	maximum internal dissipated power dissipation [W]		
60°C	1	24	9	NA
70°C		45	24	9
80°C		60	45	24
60°C	2	25	10	NA
70°C		47	25	10
80°C		63	47	25
60°C	3	27	10	NA
70°C		51	27	10
80°C		69	51	27
60°C	4	45	20	NA
70°C		68	45	20
80°C		98	68	45
60°C	5	53	24	NA
70°C		80	53	24
80°C		115	80	53
60°C	6	76	35	NA
70°C		100	76	35
80°C		144	100	76
60°C	7	115	55	NA
70°C		195	115	55
80°C		255	195	115

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Annex No. 1		

Maximum power dissipation for EJBmX without windows (Table 3)*:

Temperature class	T6/T85°C			T5/T100°C		
Max amb temperature	+40°C	+50°C	+60°C	+40°C	+50°C	+60°C
EJBmX (size)	maximum internal power dissipation [W]			maximum internal power dissipation [W]		
1	72	58	45	72	58	45
2	79	63	47	79	63	47
3	86	69	50	86	69	50
4	120	100	70	120	100	70
5	141	118	82	141	118	82
6	247	196	152	247	196	152
7	300	250	200	300	250	200
Cable temperature	T90°C			T90°C		
Drain Valve ECD	Maximum dissipated power will be reduced at 75% of maximum value			Maximum dissipated power will be reduced at 75% of maximum value		
Operators type PM10X, EFI*, EFP*	Only version with gasket in EPDM, LSR or MVQ			Only version with gasket in EPDM, LSR or MVQ		
Operators type EFPL3	No restriction			No restriction		
Operators type EFL*PC*	No restriction			No restriction		
Line bushing 07-91 7* - **** */*	No restriction			No restriction		

Temperature class	T4/T135°C			T3/T200°C		
Max amb temperature	+40°C	+50°C	+60°C	+40°C	+50°C	+60°C
EJBmX (size)	maximum internal power dissipation [W]			maximum internal power dissipation [W]		
1	120	95	72	120	95	75
2	126	100	79	126	100	79
3	137	109	86	137	109	86
4	195	170	120	195	170	120
5	229	200	141	229	200	141
6	373	304	247	373	304	247
7	420	360	300	420	360	300
Cable temperature	T110°C			T110°C		
Drain Valve ECD	Max dissipated power will be reduced at 75% of max value suitable for class temperature T5/T100°C			Max dissipated power will be reduced at 75% of max value suitable for class temperature T5/T100°C		

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Operators type PM10X, EFI*, EFP*	Only version with gasket in EPDM, LSR or MVQ are permitted	Only version with gasket in EPDM, LSR or MVQ are permitted
Operators type EFPL3	Maximum power will be reduced at 80% of maximum value	Maximum power will be reduced at 80% of maximum value
Operators type EFL*PC*	Maximum power will be reduced at 75% of maximum value	Maximum power will be reduced at 75% of maximum value
Line bushing 07-91 7 * - * * * * / *	No restriction	No restriction

*possibility to install IS barrier protected by adequate thermal probes

Maximum power dissipation for EJBmX with windows (Table 4)**:

Temperature class Max amb temperature	T6/T85°C			T5/T100°C			T4/T135°C		
	+40°C	+50°C	+60°C	+40°C	+50°C	+60°C	+40°C	+50°C	+60°C
EJBmX (size)	maximum internal power dissipation [W]			maximum internal power dissipation [W]			maximum internal power dissipation [W]		
1	72	58	45	72	60	45	120	95	72
2	79	63	45	79	63	45	126	100	79
3	86	69	45	86	69	45	137	109	86
4	120	95	50	120	95	50	195	170	120
5	141	112	59	141	112	59	229	200	141
6	180	128	70	234	196	139	355	295	234
7	200	135	75	270	230	175	395	330	270
Cable temperature	T90°C			T90°C			T110°C		
Drain Valve ECD	Maximum dissipated power is limited to value obtained from table 3			Maximum dissipated power is limited to value obtained from table 3			Maximum dissipated power is limited to value obtained from table 3		
Operators type PM10X, EFI*, EFP*	Only version with gasket in EPDM, LSR or MVQ are permitted			Only version with gasket in EPDM, LSR or MVQ are permitted			Only version with gasket in EPDM, LSR or MVQ are permitted		
Operators type EFPL3	No restriction			No restriction			Maximum dissipated power is limited to value obtained from table 3		
Operators type EFL*PC*	No restriction			No restriction			Maximum dissipated power is limited to value obtained from table 3		



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Line bushing 07-91 7 * - * * * * / *	No restriction	No restriction	No restriction
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**possibility to install IS barrier protected by adequate thermal probes

Technical Documents			
Title:	Drawing No.:	Rev. Level:	Date:
Technical Note	NT21-444	0	17/07/2023
Instructions for use	IU21-444	0	17/07/2023
EJBM Control and Signalling unit	PNC 21-444-FG1	0	17/07/2023
EJBM Enclosure series – Certification tag	PNC 21-444-FG2	0	17/07/2023
EJBM Enclosure series – Sealed bushing for interconnection	PNC 21-444-FG3	0	17/07/2023
EJBM enclosure series – Sealed bushing for interconnection with Ex e enclosures	PNC 21-444-FG4	0	17/07/2023

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Total Quality. Assured.

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SFT-IECEx-OP-19f (26 October 2018)



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2	Breathing and draining valve	BARTEC F.N. S.R.L.	ECD****	IECEx EXA 14.0004U IEC 60079-0:2017 IEC 60079-1:2014 IEC 60079-7:2017 IEC 60079-31:2022	Ex db IIC Gb Ex eb IIC Gb Ex tb IIIC Db
3	Operators	BARTEC F.N. S.R.L.	PM10X, EFl*, EFP*, EFPL3 and EFL*PC*	IECEx INE 13.0073U IEC 60079-0:2017 7th ed. IEC 60079-1:2014, 7th ed. IEC 60079-31:2013 2nd ed.	Ex db IIC Gb or Ex db IIB+H2 Gb Ex tb IIIC Db IP66
4	Line bushing	BARTEC GmbH	07-91** ****/****	IECEx-EPS13.0045U IEC 60079-0:2017 Ed.7, IEC60079-1:2014 Ed. 7	Ex db IIC Gb Ex db I Mb

* "No applicable Technical Differences" or "Technical Differences evaluated and found satisfactory – for detail see ExTR"

Required Manufacturer Routine Testing		
Test	Title/Description of Test	Standard and Clause
1	N/A	N/A