

EU TYPE-EXAMINATION CERTIFICATE

1. EU type-examination Certificate (Module B)
2. Equipment or Protective System intended for use in potentially explosive atmospheres (Directive 2014/34/EU)



3. EU type examination certificate Nr **ITS-I23ATEX36713X R.1**

4. **Product:** Flameproof enclosure model EJBMx

5. **Manufacturer:** Bartec F.N. S.r.l.

6. **Address:** Via M. Pagano 3,
20090 Trezzano sul Naviglio MI
Italy

7. This product and any acceptable variation thereto are specified in the schedule to this certificate and therein referred to.
8. INTERTEK ITALIA S.p.A., Notified Body n° 2575 in accordance with article 17 of the Directive 2014/34/EU of the European Parliament and Council of the 26 February 2014, certifies that the equipment or protective system has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective system intended for use in potentially explosive atmosphere, given in Annex II of the Directive.
The examination and tests results are recorded in confidential technical evaluation Intertek Report Nr. 200034004UDI-ATXa dated July 31st, 2023 and Intertek Report Nr. 200034004UDI-ATXa-R1 dated February 22nd, 2024.
9. Compliance with the Essential Health and Safety Requirements has been assured by compliance with EN IEC 60079-0:2018, EN 60079-1:2014, EN 60079-11:2012 and EN 60079-31:2014 except in respect of those requirements referred to at item 16 of the Schedule.
10. If the sign X is placed after the certificate number, it indicates that the product is subject to Specific Conditions of Use specified in the schedule to this certificate.
11. This EU-Type Examination Certificate relates only to the design and construction of the specified product. Further requirements of the Directive apply to the manufacturing process and supply of this product. These are not covered by this certificate.
12. The marking of the product shall include the following:



II 2G Ex db IIA or IIB or IIB+H2 Tx Gb
II 2D Ex tb IIIC Tx Db
II 2(1)G Ex db [ia IIA or IIB or IIC Ga] IIA or IIB or IIB+H2 Tx Gb
II 2(2)G Ex db [ib IIA or IIB or IIC Gb] IIA or IIB or IIB+H2 Tx Gb
II 2(1)D Ex tb [ia Da] IIIC Tx Db
II 2(2)D Ex tb [ib Db] IIIC Tx Db
Tamb: -60°C ÷ +60°C

22 February 2024
Certificate issue date



Fabrizio Massei
Certification Officer
Intertek Italia S.p.A. (NB 2575)



PDR N° 277B

Membro degli Accordi di Mutuo Riconoscimento EA, IAF e ILAC

Signatory of EA, IAF and ILAC Mutual Recognition Agreements



This Certificate is for the exclusive use of Intertek's client and is provided pursuant to the agreement between Intertek and its Client. Intertek's responsibility and liability are limited to the terms and conditions of the agreement. Intertek assumes no liability to any party, other than to the Client in accordance with the agreement, for any loss, expense or damage occasioned by the use of this Certificate. Only the Client is authorized to permit copying or distribution of this Certificate and then only in its entirety. Any use of the Intertek name or one of its marks for the sale or advertisement of the tested material, product or service must first be approved in writing by Intertek.

Intertek Italia S.p.A. Via Miglioli, 2/A - 20063 Cernusco sul Naviglio, Milano - Italy



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13. DESCRIPTION OF THE EQUIPMENT OR PROTECTIVE SYSTEM

The EJBm enclosure is made with the enclosure made by Bartec F.N. that is ATEX certified, as component, with the following number ITS-I23ATEX30043U.

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.

The type code of the product is EJBm where:

	Meaning
EJBM	Commercial name
x	Indicates enclosure size:
	1
	2
	3
	4
	5
	6
	7

The flameproof enclosure EJBm series could be fitted with accessories covered by ATEX 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*	ITS-I23ATEX30043U EN 60079-0:2018 EN 60079-1:2014 EN 60079-31:2014	Ex II2G Ex db IIB+H2 Gb Ex II2D Ex tb IIIC Db
2	Breathing and draining valve	BARTEC F.N. S.R.L.	ECD****	EXA 14 ATEX 0059U EN 60079-0:2018 EN 60079-1:2014 EN 60079-7:2017 EN 60079-31:2014	Ex II2G Ex db IIC Gb Ex II2G Ex eb IIC Gb Ex II2D Ex tb IIIC Db
3	Operators	BARTEC F.N. S.R.L.	PM10X, EFI*, EFP*, EFPL3 and EFL*PC*	INERIS 13ATEX9017U EN 60079-0:2018 EN 60079-1:2014 EN 60079-31:2014	Ex II2G Ex db IIC Gb or Ex II2G Ex db IIB+H2 Gb Ex II2D Ex tb IIIC Db IP66
4	Line bushing	BARTEC GmbH	07-91**-****/****	EPS 13ATEX1619U IEC 60079-0:2018 IEC60079-1:2014	Ex II2G Ex db IIC Gb

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)

Max intrinsically safe barrier ambient temperature	EJBmX (size)	Maximum ambient temperature		
		+40°C	+50°C	+60°C
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

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



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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		
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



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

Temperature class	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
Max amb temperature									
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, EFl*, 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		
Line bushing 07-91 7 * - * * * * / *	No restriction			No restriction			No restriction		

*possibility to install IS barrier protected by adequate thermal probes

CE Marking shall be accompanied by the identification number of the Notified Body responsible for surveillance of production.



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14. DRAWINGS AND DOCUMENTS

TITLE	DOCUMENT Nr	LEVEL	DATE
Technical Note	NT21-444	0	14/07/2023
Instructions for use	IU21-444	0A	22/02/2024
EJBM control and signalling unit	PNC 21-444-FG1	0	14/07/2023
EJBM enclosure – certification Tag	PNC 21-444-FG2	0A	13/02/2024
EJBM enclosure series – Sealed bushing for interconnection	PNC 21-444-FG3	0	14/07/2023
EJBM enclosure series – Sealed bushing for interconnection with Ex e enclosures	PNC 21-444-FG4	0	14/07/2023

Copies of the above listed documents are kept at Intertek Italia S.p.A. archive.

15. SPECIFIC CONDITIONS OF USE

- 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 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 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 guarantee only if the drain valve is in closed position, otherwise is IP6X
- See user manual to minimize the risk of electrostatic charge.

16. ESSENTIAL HEALTH AND SAFETY REQUIREMENTS

The relevant Essential Health and Safety Requirements have been identified and assessed in Intertek Report Nr. 200030043UDI-ATXa-R1 dated 22.02.2024.

17. ROUTINE (FACTORY) TESTS

N/A

18. REVISION

R.1 (22 February 2024): fixed typing errors on the product Ex marking.