



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 BAS 18.0100X** Page 1 of 4 [Certificate history:](#)
Issue 0 (2019-03-08)

Status: **Current** Issue No: 1

Date of Issue: 2020-09-17

Applicant: **Eaton MEDC Limited**
Unit B, Sutton Parkway
Oddicroft Lane
Sutton-in-Ashfield
NG17 5FB
United Kingdom

Equipment: **Break Glass Unit - BGE, BG2E, PBE**

Optional accessory:

Type of Protection: **Flameproof 'db'; Increased safety 'eb'; Dust Protection by Enclosure 'tb' and Encapsulation "m"**

Marking: **See schedule**

Approved for issue on behalf of the IECEx
Certification Body:

R S Sinclair

Position:

Technical Manager

Signature:
(for printed version)

Date:

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:

SGS Baseefa Limited
Rockhead Business Park
Staden Lane
Buxton, Derbyshire, SK17 9RZ
United Kingdom





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Manufacturer: **Eaton MEDC Limited**
Unit B, Sutton Parkway
Oddicroft Lane
Sutton-in-Ashfield
NG17 5FB
United Kingdom

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 60079-18:2014 Explosive atmospheres – Part 18: Equipment protection by encapsulation "m"
Edition:4.0

IEC 60079-31:2013 Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"
Edition:2

IEC 60079-7:2017 Explosive atmospheres - Part 7: Equipment protection by increased safety "e"
Edition:5.1

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:

[GB/BAS/ExTR18.0326/00](#)

[GB/BAS/ExTR20.0145/00](#)

Quality Assessment Report:

[GB/BAS/QAR06.0023/09](#)



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EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

The BGE, BG2E and PBE models are non-metallic enclosure, containing separately certified rail or BK6 direct mount terminals and optionally fitted separately certified encapsulated resistors and diode assemblies.

Models BGE and BG2E utilise a top shell with an external recess, which houses an emergency break glass pane, in which the actuator is housed. Optionally, a separately certified LED indicator assembly may be fitted.

Model PBE utilise a top shell with a mounted push-button momentary-release or latching actuator; optionally, a separately certified LED indicator assembly may be fitted.

All models provide an ingress protection levels of IP66 and IP67 and internal and optional external earthing facilities.

Refer to certificate annex for electrical supply ratings and list of permitted separately certified devices.

Marking

BGE, BG2E and PBE models fitted with LEDs:

Ex db eb mb IIC T6 Gb
Ex tb IIIC T85°C Db IP66/IP67
Tamb = -35°C to +70°C

BGE, BG2E and PBE models fitted with Resistors

Ex db eb mb IIC T4 Gb
Ex tb IIIC T135°C Db IP66/IP67
Tamb = -40°C to +70°C

BGE, BG2E and PBE models fitted with LEDs and Resistors

Ex db eb mb IIC T4 Gb
Ex tb IIIC T135°C Db IP66/IP67
Tamb = -35°C to +70°C

BGE, BG2E and PBE models fitted only with Switches (no LEDs or Resistors)

Ex db eb IIC T6 Gb
Ex tb IIIC T85°C Db IP66/IP67
Tamb = -40°C to +70°C

SPECIFIC CONDITIONS OF USE: YES as shown below:

1. The units must be incorporated in systems which limit the electrical supply ratings - see certificate annex.
2. The wiring loom between the fixed and detachable enclosure shell must be located during assembly such that the conductors and the restraint loop are not trapped in the sealing face between the shells.
3. The cable glands installed on the BGE, BG2E and PBE models are to be provided with sealing washers to maintain the IP66 rating of the enclosure.
4. The encapsulated LED and an encapsulated resistor/diode units shall be protected by a fuse rated for a prospective short circuit current of at least 1500A.



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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)

Variation 1.1

To amend drawings to correctly reference new certification numbers of the terminals used within the product.

Variation 1.2

To assess the product against the IEC 60079-7:2017 Ed 5.1

ExTR: **GB/BAS/ExTR20.0145/00**

File Reference: **20/0463**

Annex:

[IECEx BAS 18.0100X-1 Annex 1_1.pdf](#)

Description

The BGE, BG2E and PBE models are non-metallic enclosure, containing separately certified rail or BK6 direct mount terminals and optionally fitted separately certified encapsulated resistors and diode assemblies.

Models BGE and BG2E utilise a top shell with an external recess, which houses an emergency break glass pane, in which the release actuator is housed. Optionally, a separately certified LED indicator assembly may be fitted.

Model PBE utilise a top shell with a mounted push-button momentary-release or latching actuator; optionally, a separately certified LED indicator assembly may be fitted.

All models provide an ingress protection levels of IP66 and IP67 and internal and optional external earthing facilities. Refer to certificate annex for electrical supply ratings and list of permitted separately certified devices.

Table 1		
Maximum Electrical Supply Ratings		
Units fitted with up to 2 micro switches		
Voltage d.c.	Resistive load Amps	Inductive load Amps
30	5	3
50	1	1
75	0.75	0.75
125	0.5	0.03
250	0.25	0.03
Voltage a.c.	Resistive load Amps	Inductive load Amps
125	5	5
250	5	5

Table 2	
Units fitted with the encapsulated resistors/LED	
Maximum Electrical Supply Ratings based on devices fitted.	
LED: 24VDC 30 mA	
Resistor/Diode: 1.2W max per resistor or diode fitted.	
Voltage	Current
6 VDC	200 mA
24 VDC	50mA
48 VDC	25mA
60 VDC	20mA
80 VDC	15mA

Table 3			
ASSOCIATED CERTIFIED ELECTRICAL COMPONENTS			
The following certified components may be incorporated into the equipment			
Certificate No. IECEx/ATEX	Description	Manufacturer	Type Designation
IECEX BAS 17.0070U	Micro Switch	SAIA-Burgess	E1V3CS/XXXX
IECEX BAS 13.0012U	Encapsulated LED and Resistor Units	Eaton MEDC	Encapsulated Resistor/Diode assembly
IECEX TUR 18.0024U	Terminal	Weidmuller	AKZ 4 AKZ 2.5
IECEX TUR 18.0019U	Terminal	Weidmuller	BK 6/E
IECEX KEM 07.0061U	Terminal	Phoenix	MBK2.5/E

The terminals as listed in Table 3 above, are reviewed against the latest requirements of IEC 60079-0:2017 Edition 7 and IEC 60079-7:2015 Edition 5 and considered suitable for the assembly.

In addition the AKZ 4 AKZ 2.5 and BK 6/E terminals show compliance with IEC 60079-7:2017 Edition 5.1

The enclosure may be supplied as the black pigmented moulding without additional surface treatment or may be supplied coated externally with a pigmented epoxy or acrylic paint system.

ELECTRICAL SUPPLY RATINGS

- a) For versions which are equipped with up to two micro switches only – the maximum values for each switch fitted are as specified in Table 1.
- b) For versions which are equipped with encapsulated housing – the maximum system values are detailed in Table 2; refer to Table 4 for alternative resistor values.

Table 4		
Minimum Resistor Values		
	R1_{Min}	R2_{Min}
A	100 Ω	180 Ω
B	250 Ω	47 Ω