

## INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification Scheme for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.:

IECEx KEM 10.0002X

Issue No: 3

Certificate history:

Status:

Current

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Issue No. 3 (2016-04-14) Issue No. 2 (2015-09-25)

Issue No. 1 (2015-04-24)

Issue No. 0 (2010-02-02)

Date of Issue:

2016-04-14

Applicant:

European Safety Systems Ltd.

Impress House, Mansell Road Acton, London W3 7QH

United Kingdom

Electrical Apparatus:

Electronic Beacons

Optional accessory:

Type of Protection:

Ex d, Ex tb

Marking:

Ex d IIC T6...T3 Gb

Ex tb IIIC T60 °C...T200 °C Db

Approved for issue on behalf of the IECEx

Certification Body:

R. Schuller

Position:

Certification 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 the Official IECEx Website.

Certificate issued by:

DEKRA Certification B.V. Meander 1051 6825 MJ Amhem The Netherlands







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Manufacturer:

European Safety Systems Ltd. Impress House, Mansell Road Acton, London W3 7QH United Kingdom

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 electrical 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

Explosive atmospheres - Part 0: General requirements

Edition:6.0

IEC 60079-1: 2007-04

Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"

Edition:6

IEC 60079-31:2013

Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"

Edition:2

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:

NL/KEM/ExTR10.0005/00 NL/KEM/ExTR10.0005/03 NL/KEM/ExTR10.0005/01

NL/KEM/ExTR10.0005/02

Quality Assessment Report:

GB/SIR/QAR06.0020/05



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Schedule

#### **EQUIPMENT:**

Equipment and systems covered by this certificate are as follows:

Electronic Beacons, Types BExBG05D(-P)(-SIL), BExBG10D(-P)(-SIL), BExBG15D(-P)(-SIL), BExBG21D(-P), BExBG21D(-P), BExBG21D(-P), BExBGL1D and BExBGL2D, housed in aluminium enclosures in type of protection flameproof enclosure "d" and dust ignition protection by enclosure "tb", are used to provide visual warning signals.

The Beacons are provided with a glass dome. LED Beacon Types BExBGL1D and BExBGL2D are provided with a plastic dome cover. Other Beacons are optionally provided with a plastic dome cover indicated by the suffix -P to the type designation; e.g. BExBG21D-P.

Electronic Beacons, Types BExBG05D, BExBG10D and BExBG15D with a supply voltage of 24 Vdc have an optional monitoring module. For these the type designation is extended with -SIL.

The enclosure provides a degree of ingress protection IP66/IP67 according to IEC 60529 and IEC 60079-0.

For details about electrical data and marking see Annex 1 to this certificate.

#### CONDITIONS OF CERTIFICATION: YES as shown below:

In case of repair, contact the manufacturer for information on the dimensions of the flameproof joints.

The enclosure may generate an ignition-capable level of electrostatic charges under certain extreme conditions. The user should ensure that the equipment is not installed in a location where it may be subjected to external conditions that might cause a build-up of electrostatic charges on non-conducting surfaces.



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### DETAILS OF CERTIFICATE CHANGES (for issues 1 and above):

- Addition of new product type

Annex:

510005300-Annex1,pdf



Annex 1 to NL/KEM/ExTR10.0005/03

Annex 1 to Certificate of Conformity IECEx KEM 10.0002X, issue 3

Annex 1 to EC-Type Examination Certificate KEMA 00ATEX2006 X, issue 5

#### **Electrical data**

Beacon type	Supply voltage	Voltage range	Supply current	SIL types
BExBG05D(-SIL) BExBG05D-P(-SIL)	12 / 24 / 48 Vdc or 115 / 230 Vac	-	750 / 300 / 180 mA or 140 / 55 mA	24 Vdc – 325 mA
BExBG10D(-SIL) BExBG10D-P(-SIL)	12 / 24 / 48 Vdc or 115 / 230 Vac	-	1.45 A / 660 mA / 340 mA or 250 / 110 mA	24 Vdc – 685 mA
BExBG15D(-SIL) BExBG15D-P(-SIL)	24 / 48 Vdc or 115 / 230 Vac	-	860 / 480 mA or 360 / 170 mA	24 Vdc – 885 mA
BExTBG05D, BExTBG05D-P	115 / 230 Vac	-	140 / 55 mA	N/A
BExBGL1D	10-50 Vdc or 10-35 Vac or 115 / 230 Vac	-	400 mA (24 Vdc) or 812 mA (20 Vac) or 135 / 65 mA	N/A
BExBG21D, BExBG21D-P	24 / 48 Vdc or 115 / 230 Vac	-	1.2 A / 600 mA or 560 / 280 mA	N/A
BExBGL2D	24 Vdc or 115 / 230 Vac	18-54 Vdc or 103.5-126 Vac / 207-253 Vac	240 mA or 85 mA / 48 mA	N/A

### Marking

The relation between the electronic beacons, the ambient temperature range and the marking for gas and dust applications is given in the tables below.

GAS						
Ambient temp.	-50 °C to +40 °C	-50 °C to +45 °C	-50 °C to +50 °C	-50 °C to +55 °C	-50 °C to +60 °C	-50 °C to +70 °C
BExBG05D(-SIL)	Ex d IIC T6 Gb			Ex d IIC T5 Gb		Ex d IIC T4 Gb
BExBG10D(-SIL)	Ex d IIC T5 Gb					Ex d IIC T4 Gb
BExBG15D(-SIL)	Ex d IIC T5 Gb					Ex d IIC T4 Gb
BExBG21D				Ex d IIC T4 Gb		Ex d IIC T3 Gb
BExTBG05D	Ex d IIC T6 Gb			Ex d IIC T5 Gb		Ex d IIC T4 Gb
BExBGL1D	Ex d IIC T5 Gb					Ex d IIC T4 Gb
BExBG05D-P(-SIL)		Ex d IIC T5 Gb				Ex d IIC T4 Gb
BExBG10D-P(-SIL)			Ex d IIC T4 Gb			Ex d IIC T4 Gb
BExBG15D-P(-SIL)			Ex d IIC T4 Gb			Ex d IIC T3 Gb

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### Annex 1 to ExTR NL/KEM/ExTR10.0005/03

Annex 1 to Certificate of Conformity IECEx KEM 10.0002X, issue 3

### Annex 1 to EC-Type Examination Certificate KEMA 00ATEX2006 X, issue 5

GAS						
Ambient temp.	-50 °C to +40 °C	-50 °C to +45 °C	-50 °C to +50 °C	-50 °C to +55 °C	-50 °C to +60 °C	-50 °C to +70 °C
BExBG21D-P	100	110 0	100 0	100 0	100 0	Ex d IIC T3 Gb
BExTBG05D-P		Ex d IIC T5 Gb				Ex d IIC T4 Gb
BExBGL2D					Ex d IIC T6 Gb	Ex d IIC T5 Gb

DUST				
Ambient temp.	-50 °C to + 40 °C	-50 °C to +55 °C	-50 °C to +70 °C	
BExBG05D(-SIL)	Ex tb IIIC T85 °C Db	Ex tb IIIC T100 °C Db	Ex tb IIIC T115 °C Db	
BExBG10D(-SIL)	Ex tb IIIC T95 °C Db	Ex tb IIIC T110 °C Db	Ex tb IIIC T125 °C Db	
BExBG15D(-SIL)	Ex tb IIIC T95 °C Db	Ex tb IIIC T110 °C Db	Ex tb IIIC T125 °C Db	
BExBG21D		Ex tb IIIC T135 °C Db	Ex tb IIIC T200 °C Db	
BExTBG05D	Ex tb IIIC T85 °C Db	Ex tb IIIC T100 °C Db	Ex tb IIIC T115 °C Db	
BExBGL1D	Ex tb IIIC T95 °C Db	Ex tb IIIC T105 °C Db	Ex tb IIIC T120 °C Db	
BExBG05D-P(-SIL)	Ex tb IIIC T90 °C Db	Ex tb IIIC T105 °C Db	Ex tb IIIC T120 °C Db	
BExBG10D-P(-SIL)	Ex tb IIIC T120 °C Db	Ex tb IIIC T135 °C Db	Ex tb IIIC T150 °C Db	
BExBG15D-P(-SIL)	Ex tb IIIC T120 °C Db	Ex tb IIIC T135 °C Db	Ex tb IIIC T150 °C Db	
BExBG21D-P	Ex tb IIIC T150 °C Db	Ex tb IIIC T165 °C Db	Ex tb IIIC T180 °C Db	
BExTBG05D-P	Ex tb IIIC T90 °C Db	Ex tb IIIC T105 °C Db	Ex tb IIIC T120 °C Db	
BExBGL2D	Ex tb IIIC T60 °C Db	Ex tb IIIC T75 °C Db	Ex tb IIIC T90 °C Db	