


(1) **EC-TYPE EXAMINATION CERTIFICATE**

- (2) Equipment or protective system intended for use in potentially explosive atmospheres
- Directive 94/9/EC
- (3) EC-Type Examination Certificate Number: **KEMA 00ATEX2006 X**
- (4) Equipment or protective system:
Electronic Beacons Types BExBG05D, BExBG05E, BExBG10D, BExBG10E, BExBG15D and BExBG15E
- (5) Manufacturer: **European Safety Systems Ltd.**
- (6) Address: **Impress House, Mansell Road, Acton, London W3 7QH, England**
- (7) This equipment or protective system and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.
- (8) KEMA, notified body number 0344 in accordance with Article 9 of the Council Directive 94/9/EC of 23 March 1994, certifies that this 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 systems intended for use in potentially explosive atmospheres given in Annex II to the Directive.


The examination and test results are recorded in confidential report no. 99.3599

- (9) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:
- EN 50014 : 1992 + prA1**
EN 50018 : 1994 + prA1 + prA2 + prA3
EN 50019 : 1994 + prA1 + prA2
- (10) If the sign "X" is placed after the certificate number, it indicates that the equipment or protective system is subject to special conditions for safe use specified in the schedule to this certificate.
- (11) This EC-Type Examination Certificate relates only to the design and construction of the specified equipment or protective system. If applicable, further requirements of this Directive apply to the manufacture and supply of this equipment or protective system.
- (12) The marking of the equipment or protective system shall include the following:

 II 2 G EEx d IIC T4 or T5 or T6 or

 II 2 G EEx de IIC T4 or T5 or T6

Arnhem, 30 March 2000
by order of the Board of Directors of N.V. KEMA


L.M.J. Vries
Certification Manager

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SCHEDULE

(13)

(14)

to EC-Type Examination Certificate KEMA 00ATEX2006 X

(15) **Description**

The Electronic Beacons Types BExBG05D, BExBG05E, BExBG10D, BExBG10E, BExBG15D and BExBG15E, housed in aluminium enclosures in type of protection flameproof enclosure "d", are used to provide visual warning signals. The Beacons Types BExB..E are additionally provided with a terminal compartment in type of protection increased safety "e".

Electrical data

Supply voltage	12 / 24 / 48 Vdc or, 115 / 230 Vac
Input current	max. 1,45 A (at 12 Vdc / 10 Joule)
Output power	max. 15 Joule

Installation instructions

Suitable heat-resisting cables and cable glands, with a continuous operating temperature of at least 95 °C, shall be used when the ambient temperature exceeds 40°C.

For external earthing or bonding connection a cable lug shall be used so that the conductor is secured against loosening and twisting and that contact pressure is permanently secured.

The cable entry devices shall be of a suitable certified type EEx d for the Beacons in type of protection flameproof enclosure "d", or of a suitable certified type EEx e for the Beacons with the terminal compartment in type of protection increased safety "e".

Unused apertures shall be closed with blanking elements of a suitable certified type EEx d for the Beacons in type of protection flameproof enclosure "d", or of a suitable certified type EEx e for the Beacons with the terminal compartment in type of protection increased safety "e".

(16) **Report**

KEMA No. 99.3599

(17) **Special conditions for safe use**

The relation between the type of the Beacon, the ambient temperature range, the temperature class and the mounting positions is given in the table below:

Beacon type	ambient temperature range	temperature class	mounting position
BExBG05D and BExBG05E	-40 °C ... +40 °C	T6	any position
	-40 °C ... +55 °C	T5	any position

SCHEDULE

(13)

(14)

to EC-Type Examination Certificate KEMA 00ATEX2006 X

(17) **Special condition for safe use** (continued)

The relation between the type of the Beacon, the ambient temperature range, the temperature class and the mounting positions is given in the table below:

Beacon type	ambient temperature range	temperature class	mounting position
BExBG10D, BExBG10E, BExBG15D and BExBG15E	-40 °C ... +40 °C -40 °C ... +55 °C	T5 T4	vertical to 90° vertical to 90°

Routine tests

The Beacons with terminal compartments in type of explosion protection increased safety "e", must be submitted to a routine test according to Clause 7.1 of EN 50019.

Routine tests according to Clause 16 of EN 50018 are not required since the type test has been made at a static pressure of four times the reference pressure.

(18) **Essential Health and Safety Requirements**

Essential Health and Safety Requirements not covered by standards listed at (9)	
Clause	Subject
1.0.5	Marking
1.0.6.b	Instructions

These Essential Health and Safety Requirements are examined and positively judged. The results are laid down in the report listed at (16).

(19) **Test documentation**

1. EC-Type Examination Certificate No. KEMA 99ATEX6312

2. Description (16 pages))
)
 3. Drawing No. D 2448-01 issue A)
 D 2448-02 issue A)
 D 2448-03 issue A)
 D 2448-04 issue A)
 D 2448-05 issue A)
 D 2448-06 issue B)
 D 2448-07 issue B)
 PL 2448-02 issue A)
 PL 2448-03 issue A)

signed

27.03.2000

SCHEDULE

(13)

(14)

to EC-Type Examination Certificate KEMA 00ATEX2006 X

(19) **Test documentation** (continued)

signed

Drawing No. D 2449-01 issue A)
D 2449-02 issue A)
D 2449-03 issue A)
D 2449-04 issue A)
D 2449-05 issue A)
D 2449-06 issue B)
D 2449-07 issue B)
PL 2449-02 issue A)
PL 2449-03 issue A)
CD 2420 issue A)
CD 2421 issue A)
CD 2422 issue A)
CD 2423 issue A)
D 2489)

27.03.2000

3. Samples

AMENDMENT 1

to EC-Type Examination Certificate KEMA 00ATEX2006 X

Manufacturer:

**European Safety Systems Ltd.
Impress House, Mansell Road, Acton,
London W3 7QH,
England**

Description

In future the Electronic Beacons Type BExBG05D may also be constructed in accordance with the documentation stated below.

The modification concerns an electronic provision for the operation of the Beacon to be triggered by a telephone ringing signal.

The type designation of these Electronic Beacons will be: **FLASHTEL** type **BExTBG05D**.

Electrical data

Power supply 115 Vac, 140 mA, or
230 Vac, 55 mA.

All other data remain unchanged.


Test documentation

)	<u>signed</u>
1. Description (4 pages))	
)	
2. Drawings No. D 2448-08, issue A)	15.08.2000
D 2448-09, issue A)	
CD 2425, issue A)	
PI 2448-08, issue A)	

Arnhem, 21 August 2000
by order of the Board of Directors of N.V. KEMA



 C.M. Boschloo
 Certification Manager

Code:  II 2 G EEx d IIC T5 or T6

[2005548]

AMENDMENT 2

to EC-Type Examination Certificate KEMA 00ATEX2006 X

Manufacturer: European Safety Systems Ltd.

Address: Impress House, Mansell Road, Acton, London W3 7QH, England

Description

In future the Electronic Beacons Types BExBG05D, BExBG05E, BExBG10D, BExBG10E, BExBG15D and BExBG15E and Flashtel type BExTBG05D may also be used for a minimum ambient temperature of -50 °C.

All other data remain unchanged.

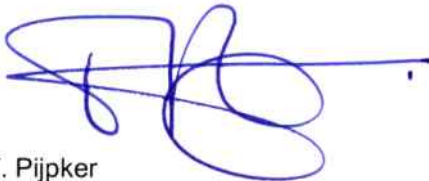
Test documentation

		<u>Dated</u>
1. Drawing No.	D 2448-06, issue C)	
	D 2448-07, issue C)	
	D 2448-09, issue B)	13.02.2002
	D 2449-06, issue C)	
	D 2449-07, issue C)	

2. Samples

Arnhem, 18 March 2002

KEMA Quality B.V.



T. Pijpker
Certification Manager

AMENDMENT 3

to EC-Type Examination Certificate KEMA 00ATEX2006 X

Manufacturer: European Safety Systems Ltd.

Address: Impress House, Mansell Road, Acton, London W3 7QH, England

Description

In future the Electronic Beacons Types BExBG05D, BExBG05E, BExBG10D, BExBG10E, BExBG15D and BExBG15E and Flashtel type BExTBG05D may also be used in areas where combustible dust may be present.

Compliance with the Essential Health and Safety Requirements has been assured by compliance with EN 50281-1-1 : 1998.


The Electronic Beacons types BExBG10D, BExBG10E, BExBG15D and BExBG15E are marked with :

 II 2 D T 135 °C or T 100 °C

Ambient temperature range: -50 °C to +55 °C for T 135 °C
-50 °C to +40 °C for T 100 °C

The maximum surface temperature of the enclosure T 135 °C is based on a maximum ambient temperature of 55 °C. The maximum surface temperature of the enclosure T 100 °C is based on a maximum ambient temperature of 40 °C.

The Electronic Beacons Types BExBG05D, BExBG05E and Flashtel type BExTBG05D are marked with:

 II 2 D T 100 °C or T 85 °C

Ambient temperature range: -50 °C to +55 °C for T 100 °C
-50 °C to +40 °C for T 85 °C

The maximum surface temperature of the enclosure T 100 °C is based on a maximum ambient temperature of 55 °C. The maximum surface temperature of the enclosure T 85 °C is based on a maximum ambient temperature of 40 °C.

Installation instructions

For combustible dust applications, the cable entry device and blanking elements shall be in type of explosion protection increased safety "e" or flameproof enclosure "d" and shall have an IP 6X rating according to EN 60529.

All other data remain unchanged.

AMENDMENT 3

to EC-Type Examination Certificate KEMA 00ATEX2006 X

Test documentation

Dated

1. Drawing No. D2449-14, rev. A
D2449-15, rev. A
D2448-19, rev. A
D2448-20, rev. A
D2448-21, rev. A

04.06.2003

Arnhem, 20 August 2003
KEMA Quality B.V.



T. Pijpker
Certification Manager

AMENDMENT 4

to EC-Type Examination Certificate KEMA 00ATEX2006 X

Manufacturer: European Safety Systems Ltd.

Address: Impress House, Mansell Road, Acton, London W3 7QH, England

Description

In future, in accordance with the documentation stated below, the Electronic Beacons and Flashtel Beacons may also be manufactured with a coloured prismatic lens over the glass dome in order to increase the perceived light output.

As a consequence of providing the prismatic lens, the temperature classification shall be as follows:


Beacon Type	Ambient temperature range	Temperature class
BExBG05D, BExBG05E and BExTBG05D	-50 °C ... +40 °C -50 °C ... +55 °C	T5 T4
BExBG10D, BExBG10E, BExBG15D and BExBG15E	-50 °C ... +55 °C	T4

The marking of the Electronic Beacons Type BExBG05D, BExBG05E, BExBG10D, BExBG10E, BExBG15D, BExBG15E and Flashtel Type BExTBG05D, with prismatic lens shall include the following:

 II 2 G EEx d IIC T4 or T5 or

 II 2 G EEx de IIC T4 or T5

The marking of the Electronic Beacons Type BExBG05D, BExBG05E and Flashtel Type BExTBG05D with prismatic lens shall include the following:

 II 2 D T 105 °C or T 95 °C IP 6X

Ambient temperature range: -50 °C ... +55 °C for T 105 °C
-50 °C ... +40 °C for T 95 °C

The maximum surface temperature of the enclosure T 105 °C is based on a maximum ambient temperature of 55 °C. The maximum surface temperature of the enclosure T 95 °C is based on a maximum ambient temperature of 40 °C.

AMENDMENT 4

to EC-Type Examination Certificate KEMA 00ATEX2006 X

The marking of the Electronic Beacons Type BExBG10D, BExBG10E, BExBG15D and BExBG15E with prismatic lens shall include the following:

 II 2 D T 120 °C or T 105 °C IP 6X

Ambient temperature range: -50 °C ... +55 °C for T 120 °C
-50 °C ... +40 °C for T 105 °C


The maximum surface temperature of the enclosure T 120 °C is based on a maximum ambient temperature of 55 °C. The maximum surface temperature of the enclosure T 105 °C is based on a maximum ambient temperature of 40 °C.

The range of Electronic Beacons and Flashtel Beacons has been extended with the LED Beacon Type BExBGL1D, in accordance with the documentation stated below. The LED unit will be fitted with a coloured prismatic lens.

The marking of the LED Beacons Type BExBGL1D shall include the following:

 II 2 G EEx d IIC T4 or T5

Ambient temperature range: -50 °C ... +55 °C for T4
-50 °C ... +40 °C for T5

 II 2 D T 105 °C or T 95 °C IP 6X

Ambient temperature range: -50 °C ... +55 °C for T 105 °C
-50 °C ... +40 °C for T 95 °C

The maximum surface temperature of the enclosure T 105 °C is based on a maximum ambient temperature of 55 °C. The maximum surface temperature of the enclosure T 95 °C is based on a maximum ambient temperature of 40 °C.

Electrical data

LED Beacons Type BExBGL1D

Supply voltage	10-50 V DC	10-35 V AC	115 V AC	230 V AC
Current (mA)	400 (24 V)	812 (20 V)	135	65

All other data remain unchanged.

AMENDMENT 4

to EC-Type Examination Certificate KEMA 00ATEX2006 X

Test documentation

		<u>dated</u>	
1. Drawing No.	CD 2432, issue A)		
	CD 2433, issue A)	26.10.2005	
	CD 2434, issue A)		
	D 2448-19, issue C)		
	D 2448-20, issue C)	11.04.2006	
	D 2448-21, issue C)		
	D 2448-25, issue A)	26.10.2005	
	D 2448-26, issue A)		
	D 2448-27, issue B)	11.04.2006	
	D 2449-14, issue C)	11.04.2006	
	D 2449-15, issue C)		
	2. Parts list No.	PL 2448-02, issue B)	
		PL 2448-03, issue B)	
		PL 2448-08, issue B)	26.10.2005
		PL 2448-25, issue A)	
PL 2449-03, issue B)			

Arnhem, 21 April 2006
KEMA Quality B.V.



C.G. van Es
Certification Manager



Amendment 5

to EC-Type Examination Certificate KEMA 00ATEX2006 X

Issue No. 1

Manufacturer: **European Safety Systems Ltd.**

Address: **Impress House, Mansell Road, Acton, London W3 7QH, England**

Description

In future the Electronic Beacons Types BExBG05D, BExBG05E, BExBG10D, BExBG10E, BExBG15D, BExBG15E, Flashtel Type BExTBG05D and LED Beacon Type BExBGL1D may also be constructed in accordance with the documentation listed below.

The modifications concern:

1. Change of potting material used in the line-bushing of the EEx de versions.
2. Increase of the ambient temperature to +70 °C for all types.
3. Removal of the prismatic lens of the non-LED versions.

Electronic Beacons Types BExBG05D, BExBG05E and Flashtel Type BExTBG05D

- a. The Beacons suitable for an ambient temperature range of -50 °C to +40 °C are marked with:

EEx d IIC T6 T 85 °C or EEx de IIC T6 T 85 °C

The maximum surface temperature of the enclosure T 85 °C is based on a maximum ambient temperature of 40 °C.

- b. The Beacons suitable for an ambient temperature range of -50 °C to +55 °C are marked with:

EEx d IIC T5 T 100 °C or EEx de IIC T5 T 100 °C

The maximum surface temperature of the enclosure T 100 °C is based on a maximum ambient temperature of 55 °C.

- c. The Beacons suitable for an ambient temperature range of -50 °C to +70 °C are marked with:

EEx d IIC T4 T 115 °C or EEx de IIC T4 T 115 °C

The maximum surface temperature of the enclosure T 115 °C is based on a maximum ambient temperature of 70 °C.

LED Beacon Type BExBGL1D with prismatic lens

- a. The Beacon suitable for an ambient temperature range of -50 °C to +40 °C is marked with:

EEx d IIC T5 T 95 °C

The maximum surface temperature of the enclosure T 95 °C is based on a maximum ambient temperature of 40 °C.

Amendment 5

to EC-Type Examination Certificate KEMA 00ATEX2006 X

Issue No. 1

- b. The Beacon suitable for an ambient temperature range of -50 °C to +70 °C is marked with:

EEx d IIC T4 T 105 °C or T 120 °C

The maximum surface temperature of the enclosure T 105 °C is based on a maximum ambient temperature of 55 °C. The maximum surface temperature of the enclosure T 120 °C is based on a maximum ambient temperature of 70 °C.

Electronic Beacons Types BExBG10D, BExBG10E, BExBG15D and BExBG15E

- a. The Beacons suitable for an ambient temperature range of -50 °C to +40 °C are marked with:

EEx d IIC T5 T 95 °C or EEx de IIC T5 T 95

The maximum surface temperature of the enclosure T 95 °C is based on a maximum ambient temperature of 40 °C.

- b. The Beacons suitable for an ambient temperature range of -50 °C to +70 °C are marked with:

EEx d IIC T4 T 110 °C or T 125 °C or EEx de IIC T4 T 110 °C or 125 °C

The maximum surface temperature of the enclosure T 110 °C is based on a maximum ambient temperature of 55 °C. The maximum surface temperature of the enclosure T 125 °C is based on a maximum ambient temperature of 70 °C.

Installation instructions

Suitable heat-resisting cables and cable glands, with a continuous operating temperature of at least 110 °C, shall be used when the ambient temperature exceeds 40 °C.

Routine tests

Unchanged.

Test Report

KEMA No. 2090114/3.

Special conditions for safe use

Unchanged.

Essential Health and Safety Requirements

Unchanged.

Test documentation

As listed in Test Report No. 2090114/3.



Amendment 5

to EC-Type Examination Certificate KEMA 00ATEX2006 X

Issue No. 1

Arnhem, 7 March 2008
KEMA Quality B.V.

A handwritten signature in blue ink, appearing to be "P.B.A. Jansen", written over a horizontal line.

P.B.A. Jansen
Certification Manager