



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: **Baseefa02ATEX0224X**

4 Equipment or Protective System: **A TYPE XB4 BEACON**

5 Manufacturer: **MEDC Limited**

6 Address: **Colliery Road, Pinxton, Nottingham, NG16 6JF**

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 Baseefa (2001) Ltd. Notified body number 1180, 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. 02(C)0259

9 Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

**EN 50014: 1997 + Amendments 1 and 2    EN 50018: 2000 + Amendment 1    EN 50019: 2000**

except in respect of those requirements listed at item 18 of the Schedule.

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. Further requirements of the Directive apply to the manufacturing process and supply of this equipment or protective system. These are not covered by this certificate.

12 The marking of the equipment or protective system shall include the following :

**⊕ II 2 G EEx d IIC T5**

This certificate may only be reproduced in its entirety, without any change, schedule included.

Baseefa (2001) Ltd. Customer Reference No. 0676

Project File No. 02/0259

This certificate is granted subject to the general terms and conditions of Baseefa (2001) Ltd. It does not necessarily indicate that the equipment may be used in particular industries or circumstances.

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**R S SINCLAIR**  
**DIRECTOR**  
On behalf of  
Baseefa (2001) Ltd.



## Schedule

### 15 Description of Equipment or Protective System

A TYPE XB4 BEACON rated up to 254V a.c., 50Hz comprises a circular base and cover assembly manufactured in aluminium alloy. The cover incorporates a cemented well glass, forms a tapered spigot joint with the base and is secured with three M8, 25mm long socket head cap screws of minimum grade A4-80.

The beacon is fitted with two xenon lamps each rated at 10J and associated printed circuit board mounted control gear.

An additional printed circuit board may be fitted to allow the control of the beacon by telephone.

Alternative control gear may be fitted to allow the beacon to be used up to 110V d.c. The certification parameters for the XB4 Beacon are given in Table 1 below:-

Internal and external earth facilities are provided.

Cable entry holes are provided as specified on the certified drawings for the accommodation of flameproof cable entry devices, with or without the interposition of a flameproof thread adapter. Unused entries are to be fitted with suitable certified flameproof stopping plugs.

The cable entry devices, thread adapters and stopping plugs shall be suitable for the equipment, the cable and the conditions of use and shall be certified as Equipment (not a Component) under an EC Type Examination Certificate to Directive 94/9/EC.

If the unit is intended for use in a dust atmosphere these devices must be sealed in accordance with the relevant codes of practice to ensure a dust tight seal.

Table 1

TYPE DESIGNATION	VOLTAGE RATINGS (V)	MAXIMUM POWER RATING	TEMPERATURE CLASSIFICATION	AMBIENT TEMPERATURE RANGE	DELAY ON OPENING (MINUTES)
XB4 (XENON LAMP)	110, 120, 220, 240, 254 A.C.	2 x 10J	T5	-20°C to +40°C	20
XB4 (XENON LAMP)	24, 48, 110 D.C.	2 x 10J	T5	-20°C to +40°C	20
XB4 (XENON LAMP)	110, 120, 220, 240, 254 A.C.	2 x 10J	T4	-55°C to +55°C	20
XB4 (XENON LAMP)	24, 48, 110 D.C.	2 x 10J	T4	-55°C to +55°C	20

### VARIATION 0.1

The XB4 lamp and control gear may be replaced with alternative assemblies to form the types of beacons with certification parameters as listed in Table 2:-



Table 2

TYPE DESIGNATION	VOLTAGE RATINGS (V)	MAXIMUM WATTAGE RATING	TEMPERATURE CLASSIFICATION	AMBIENT TEMPERATURE RANGE	DELAY ON OPENING (MINUTES)
FL4 (FLUORESCENT LAMP)	24, 48, 110 D.C.	13W	T6	-20°C to +40°C	15
FL4 (FLUORESCENT LAMP)	110, 120 A.C.	26W	T4	-20°C to +55°C	15
FL4 (FLUORESCENT LAMP)	220, 240, 254 A.C.	39W	T4	-20°C to +55°C	15
FL4 (FLUORESCENT LAMP)	24, 48, 110 D.C.	13W	T5	-20°C to +55°C	15
FB4 (FILAMENT LAMP)	254 A.C. maximum	100W	T3	-55°C to +55°C	5
FB4 (FILAMENT LAMP)	254 A.C. maximum	60W	T4	-55°C to +55°C	5

**VARIATION 0.2**

Alternative use of stainless steel for the enclosure material.

**VARIATION 0.3**

The beacon may be fitted with a Type GRP Terminal Chamber manufactured by MEDC, as certified under EC-Type Examination Certificate Baseefa02ATEX0223U and coded EEx e II.

A Line Bushing Type 07-91 manufactured by Bartec as certified under EC-Type Examination Certificate (referred to as an EC-Prototype Testing Certificate) PTB 97 ATEX 1047U coded Ex II 2 G EEx d II is incorporated to effect connection from the terminals provided within GRP Terminal Chamber to those within the lamp housing.

This version of the XB4 Beacon fitted with the Type GRP Terminal Chamber is marked:-

⊕ II 2 G EEx de IIC

with the temperature classification and other certification parameters as given in Table 3 below:-

Table 3

TYPE DESIGNATION	VOLTAGE RATINGS (V)	MAXIMUM POWER RATING	TEMPERATURE CLASSIFICATION	AMBIENT TEMPERATURE RANGE	DELAY ON OPENING (MINUTES)
XB4 (XENON LAMP)	110, 120, 220, 240, 254 A.C.	2 x 10J	T5	-20°C to +40°C	20
XB4 (XENON LAMP)	24, 48, 110 D.C.	2 x 10J	T5	-20°C to +40°C	20
XB4 (XENON LAMP)	110, 120, 220, 240, 254 A.C.	2 x 10J	T4	-50°C to +55°C	20
XB4 (XENON LAMP)	24, 48, 110 D.C.	2 x 10J	T4	-50°C to +55°C	20
FL4 (FLUORESCENT LAMP)	24, 48, 110 D.C.	13W	T6	-20°C to +40°C	15



TYPE DESIGNATION	VOLTAGE RATINGS (V)	MAXIMUM POWER RATING	TEMPERATURE CLASSIFICATION	AMBIENT TEMPERATURE RANGE	DELAY ON OPENING (MINUTES)
FL4 (FLUORESCENT LAMP)	110, 120 A.C.	26W	T4	-20°C to +55°C	15
FL4 (FLUORESCENT LAMP)	220, 240, 254 A.C.	39W	T4	-20°C to +55°C	15
FL4 (FLUORESCENT LAMP)	24, 48, 110 D.C.	13W	T5	-20°C to +55°C	15
FB4 (FILAMENT LAMP)	254 A.C. maximum	100W	T3	-50°C to +55°C	5
FB4 (FILAMENT LAMP)	254 A.C. maximum	60W	T4	-50°C to +55°C	5

**16 Report Number**

Baseefa Certification Report 02(C)0259

**17 Special Condition for Safe Use**

For replacement purposes the cover fixing screws shall be of stainless steel minimum grade A4-80.

And additionally for the EEx de versions of the beacons:-

- a) Not more than one single or multiple strand lead shall be connected into either side of any terminal, unless multiple conductors have been joined in a suitable manner, e.g. two conductors into a single insulated crimped boot lace ferrule.
- b) Leads connected to the terminals shall be insulated for the appropriate voltage and this insulation shall extend to within 1mm of the metal of the terminal throat.
- c) All terminal screws, used and unused, shall be tightened down.
- d) When fitting QB insulating combs (cross connecting links) to terminal ways a further single conductor of 1.5mm<sup>2</sup> minimum cross-sectional area may be connected to the same terminal way on top of the prong.
- e) The inside edge of the insulation of the QB combs cross-connecting arm shall be in contact with the terminal moulding.

**18 Essential Health and Safety Requirements**

All relevant Essential Health and Safety Requirements are covered by the standards listed at item 9.

**19 Drawings and Documents**

Number	Issue	Date	Description
188-547	A	08-12-02	General Arrangement
188-548	A	08-12-02	Internal Arrangements
188-148	C	7.6.96	Circuit Diagram - 24/48/110V DC Xenon Beacon
188-149	B	6.7.93	Circuit Diagram - 110/120V AC Xenon Beacon
188-150	B	6.7.93	Circuit Diagram - 220/240/254V AC Xenon Beacon
188-151	D	05.06.03	Circuit Diagram - DC Fluorescent Beacon
188-152	B	6.7.93	Circuit Diagram - Telephone/Relay/Initiate



**1 SUPPLEMENTARY EC - TYPE EXAMINATION CERTIFICATE**

**2 Equipment or Protective System Intended for use in Potentially Explosive Atmospheres  
Directive 94/9/EC**

**3 Supplementary EC - Type Examination Certificate Number: Baseefa02ATEX0224X/1**

**4 Equipment or Protective System: A TYPE XB4 BEACON**

**5 Manufacturer: MEDC Limited**

**6 Address: Brookhill Industrial Estate, Colliery Road, Pinxton, Nottingham,  
NG16 6JF**

**7 This supplementary certificate extends EC - Type Examination Certificate No. Baseefa02ATEX0224X to apply to equipment or protective systems designed and constructed in accordance with the specification set out in the Schedule of the said certificate but having any variations specified in the Schedule attached to this certificate and the documents therein referred to.**

This supplementary certificate shall be held with the original certificate.

This certificate may only be reproduced in its entirety, without any change, schedule included.

Baseefa (2001) Ltd. Customer Reference No. 0676

Project File No. 04/0460

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### Schedule

14

Certificate Number Baseefa02ATEX0224X/1

15 Description of the variation to the Equipment or Protective System

#### Variation 1.1

The optional addition of a series connected resistor and an end of line resistor each rated at 2.5W minimum and 470Ω minimum fitted across the input terminals for the 24V d.c. versions of the beacons.

16 Report Number

Baseefa Report 04(CI)0460

17 Special Conditions for Safe Use

None additional to those listed previously.

18 Essential Health and Safety Requirements

Compliance with the Essential Health and Safety Requirements is not affected by this variation.

19 Drawings and Documents

Number	Issue	Date	Description
188-548	B	19-05-04	Internal Arrangements



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- 1 **SUPPLEMENTARY EC - TYPE EXAMINATION CERTIFICATE**
  - 2 **Equipment or Protective System Intended for use in Potentially Explosive Atmospheres  
Directive 94/9/EC**
  - 3 Supplementary EC - Type Examination Certificate Number: **Baseefa02ATEX0224X/2**
  - 4 Equipment or Protective System: **A TYPE XB4 BEACON**
  - 5 Manufacturer: **MEDC Limited**
  - 6 Address: **Brookhill Industrial Estate, Colliery Road, Pinxton, Nottingham,  
NG16 6JF**
  - 7 This supplementary certificate extends EC - Type Examination Certificate No. **Baseefa02ATEX0224X** to apply to equipment or protective systems designed and constructed in accordance with the specification set out in the Schedule of the said certificate but having any variations specified in the Schedule attached to this certificate and the documents therein referred to.

This supplementary certificate shall be held with the original certificate.

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Baseefa Customer Reference No. 0676

Project File No. 04/0529

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## Schedule

14

Certificate Number Baseefa02ATEX0224X/2

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### Description of the variation to the Equipment or Protective System

#### Variation 2.1

The optional use of both the EEx d and EEx e versions of the Types XB4, FL4 and FB4 Beacons in a potentially explosive dust atmosphere in accordance with EN 50281-1-1:1998 + Amendment 1.

When this option is invoked a D is added to the marking which takes the form  $\text{Ex}$  II 2 GD IIC

In accordance with the marking requirements for both EN50014 and EN50281-1-1 the maximum surface temperature is marked; T85°C, T100°C, T135°C or T200°C as appropriate and detailed on certificate schedule drawing number 188-548.

The appropriate ambient temperature range in which each of the EEx d versions of the beacon can operate in a potentially explosive dust atmosphere is as follows;

Type XB4 Beacon -55°C to +55°C

Type FB4 Beacon -55°C to +55°C

Type FL4 Beacon -20°C to +55°C

The appropriate ambient temperature range in which each of the EEx de versions of the beacon can operate in a potentially explosive dust atmosphere is as follows;

Type XB4 Beacon -20°C to +55°C

Type FB4 Beacon -20°C to +55°C

Type FL4 Beacon -20°C to +55°C

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### Report Number

Baseefa Certification Report 04(C)0529

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### Special Conditions for Safe Use

Any cable entry device used with the equipment shall be suitable for the entry arrangement and maintain the ingress protection level IP6X.

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### Essential Health and Safety Requirements

Compliance with the Essential Health and Safety Requirements is not affected by this variation.

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### Drawings and Documents

Number	Issue	Date	Description
188-547	B	07-06-05	General Arrangement
188-548 sheet 1	C	21-07-05	Internal Arrangements
188-548 sheet 2	C	21-07-05	Marking Data



**1 SUPPLEMENTARY EC - TYPE EXAMINATION CERTIFICATE**

**2 Equipment or Protective System Intended for use in Potentially Explosive Atmospheres  
Directive 94/9/EC**

- 3 Supplementary EC - Type Examination Certificate Number: Baseefa02ATEX0224X/3**
- 4 Equipment or Protective System: A TYPE XB4 BEACON**
- 5 Manufacturer: MEDC Limited**
- 6 Address: Colliery Road, Brookhill Industrial Estate, Pinxton, Nottingham  
NG16 6JF**
- 7 This supplementary certificate extends EC - Type Examination Certificate No. Baseefa02ATEX0224X to apply to equipment or protective systems designed and constructed in accordance with the specification set out in the Schedule of the said certificate but having any variations specified in the Schedule attached to this certificate and the documents therein referred to.**

This supplementary certificate shall be held with the original certificate.

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Baseefa Customer Reference No. 0676

Project File No. 05/0833

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### Schedule

14

Certificate Number Baseefa02ATEX0224X/3

15 Description of the variation to the Equipment or Protective System

#### Variation 3.1

Alternative terminal arrangement in the Type FB4 Filament Lamp, incorporating up to twelve type SAK2.5 rail mounted terminals.

16 Report Number

None

17 Special Conditions for Safe Use

None additional to those listed previously

18 Essential Health and Safety Requirements

Compliance with the Essential Health and Safety Requirements is not affected by this variation.

19 Drawings and Documents

Number	Issue	Date	Description
188-548 Sheets 1 & 2	D	22-11-05	Internal Arrangements & Marking



1 **SUPPLEMENTARY EC - TYPE EXAMINATION CERTIFICATE**

2 **Equipment or Protective System Intended for use in Potentially Explosive Atmospheres  
Directive 94/9/EC**

3 Supplementary EC - Type Examination Certificate      See Schedule  
Number:

4 Equipment or protective system:                              See Schedule

5 Manufacturer:    MEDC

6 Address:    Colliery Road, Pinxton, Nottingham, NG16 6JF

7 This supplementary certificate extends the EC - Type Examination Certificates listed in the Schedule to apply to equipment or protective systems designed and constructed in accordance with the specification set out in the Schedules of the said Certificates but having any variations specified in the Schedule attached to this certificate and the documents therein referred to.

A copy of this Supplementary Certificate shall be attached to each of the original Certificates.

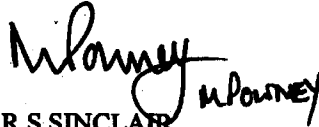
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Baseefa Customer Reference No. 0676

Project File No. 07/0181

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### Schedule

#### Description of the variation to the Equipment or Protective System

To permit the use of epoxy or acrylic paint processes on the products detailed below.

Certificate No.	Supplement No.	Equipment Type
BAS99ATEX2195X	5	XBII
BAS99ATEX2196	5	XB12,FB12,TH12,FL12,
BAS00ATEX2031	2	XB9
BAS00ATEX2097X	9	DB3, DB3L, DB4, DB4L
BAS00ATEX2098X	9	DB3E, DB3E, DB4, DB4E
BAS00ATEX2204X	1	XB10
BAS00ATEX2226X	1	XB10E
BAS02ATEX2086X	5	DB10
BAS02ATEX2105X	4	BGE, PBE
Baseefa03ATEX0084X	2	BG1, PB1
Baseefa04ATEX0009X	3	XB15, FB15, FL15, LD15, TH15
Baseefa04ATEX0166X	2	DB16 IIB
Baseefa04ATEX0167X	2	DB16 IIC
Baseefa05ATEX0198X	1	DB20 IIB
Baseefa05ATEX0199X	1	DB20 IIC

#### Report No.

None

#### Special Conditions for Safe Use

None additional to those listed previously

#### Essential Health and Safety Requirements

Compliance with the Essential Health and Safety Requirements is not affected by this variation

#### Drawings and Documents

Number	Issue	Date	Description
122-808	1	05/03/07	Addition of Optional Acrylic Paint to Products Listed.



**1 SUPPLEMENTARY EC - TYPE EXAMINATION CERTIFICATE**

**2 Equipment or Protective System Intended for use in Potentially Explosive Atmospheres  
Directive 94/9/EC**

**3 Supplementary EC - Type Examination Certificate Number: Baseefa02ATEX0224X/5**

**4 Equipment or Protective System: Type XB4 Xenon Beacon**

**5 Manufacturer: MEDC Limited**

**6 Address: Colliery Road, Pinxton, Nottingham, NG16 6JF**

**7 This supplementary certificate extends EC - Type Examination Certificate No. Baseefa02ATEX0224X to apply to equipment or protective systems designed and constructed in accordance with the specification set out in the Schedule of the said certificate but having any variations specified in the Schedule attached to this certificate and the documents therein referred to.**

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Baseefa Customer Reference No. 0676

Project File No. 07/0589

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