



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.

Baseefa (2001) Ltd.

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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 1.5mm² 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