# 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 09.0059** | Page 1 of 3 | Certificate history: |
| Status: | **Current** | Issue No: 0 | |
| Date of Issue: | 2010-09-20 | | |
| Applicant: | **Cooper MEDC Limited**<br>Colliery Road<br>Brookhill Industrial Estate<br>Pinxton<br>Nottingham<br>NG16 6JF<br>**United Kingdom** | | |
| Equipment: | **SM87 Beacons** | | |
| Optional accessory: | | | |
| Type of Protection: | **Flameproof, Dust Protected** | | |
| Marking: | Ex d IIC T** Ta -55 °C to + ** °C Gb<br>Ex tb III C T** °C Ta -55 °C to + ** °C Db IP66/IP67<br>** See description | | |

| | |
|---|---|
| Approved for issue on behalf of the IECEx Certification Body: | **R S Sinclair** |
| Position: | **Managing Director** |
| Signature:<br>(for printed version) | |
| Date:<br>(for printed version) | |

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:

**Baseefa**
**Rockhead Business Park**
**Staden Lane**
**Buxton**
**Derbyshire**
**SK17 9RZ**
**United Kingdom**

# IECEx Certificate of Conformity

Certificate No.: **IECEx BAS 09.0059**



Date of issue: 2010-09-20

Issue No: 0

Manufacturer: **Cooper MEDC Limited**
Colliery Road
Brookhill Industrial Estate
Pinxton
Nottingham
NG16 6JF
**United Kingdom**

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 60079-0:2007 Explosive atmospheres - Part 0:Equipment - General requirements
Edition:5

IEC 60079-1:2007 Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
Edition:6

IEC 60079-31:2008 Explosive atmospheres – Part 31: Equipment dust ignition protection by enclosure 't'
Edition: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 Report:

GB/BAS/ExTR09.0082/00

Quality Assessment Report:

GB/BAS/QAR06.0023/03

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**EQUIPMENT:**
Equipment and systems covered by this Certificate are as follows:

The Type SM87 Beacons comprise a cylindrical enclosure on a square base and a cover provided with a glass dome to component enclosure IECEx BAS 09.0154U.

The base and cover may be manufactured from either aluminium or stainless steel and the cover is secured by screws of grade A4-80 stainless steel. The base is provided with up to four threaded cable entries. The enclosures may be joined together by the manufacturer's supplied coupling up to a maximum of 5 enclosures.

See annex for a full description and additional data.

**SPECIFIC CONDITIONS OF USE: NO**

**Annex:**

IECEx BAS 09.0059 Annex.pdf

**Baseefa**
Rockhead Business Park
Staden lane, Buxton, Derbyshire
SK17 9RZ
United Kingdom



**Product Description**

The Type SM87 Beacons comprise a cylindrical enclosure on a square base and a cover provided with a glass dome to component enclosure IECEx BAS 09.0154U.

The base and cover may be manufactured from either aluminium or stainless steel and the cover is secured by screws of grade A4-80 stainless steel. The base is provided with up to four threaded cable entries. The enclosures may be joined together by the manufacturer's supplied coupling up to a maximum of 5 enclosures.

The enclosure contains various internal arrangements to form the following:-

A filament lamp and terminals to form a **Type SM87 LU3** rated up to 240V a.c., 10W, 25W or 40W.

A fluorescent lamp, a PCB and terminals to form a **Type SM87 LU1** rated up to 254V a.c. or 48 V d.c., 5W or 10W.

A Xenon Lamp, a PCB and terminals to form a **Type SM87 HXB** rated up to 254V a.c. or 48V d.c.,11W.

A Xenon electronics unit PCB and terminals to form a **Type SM87 XBT/A** rated up to 254V a.c. or 48V d.c, 11W. This unit is to drive the XTB/B unit described below.

A Xenon Lamp PCB and terminals to form a **Type SM87 XBT/B** powered from the unit above.

Four PCBs containing clusters of LEDs, a driver PCB and terminals to form a **Type SM87 LED** rated up to 48V d.c. 4W (white) or 5.6W (blue).

The temperature classification and ambient temperature range for the beacons fitted with the specified lamps are indicated below.

| Beacon | Watts | Marked Temperature | Ambient temperature range | Cable Temperature Rise (K) |
|---|---|---|---|---|
| SM87 LU3 | 10 | T100°C | -55°C to + 70°C | 30 |
| | | T85°C | -55°C to + 55°C | |
| | | T70°C | -55°C to + 40°C | |
| | 25 | T130°C | -55°C to + 55°C | 65 |
| | | T115°C | -55°C to + 40°C | |
| | 40 | T155°C | -55°C to + 55°C | 110 |
| | | T140°C | -55°C to + 40°C | |
| SM87 LU1 | 5 | T85°C | -55°C to + 55°C | 50 |
| | | T70°C | -55°C to + 40°C | |
| | 10 | T85°C | -55°C to + 55°C | 50 |
| | | T70°C | -55°C to + 40°C | |
| SM87 HXB | 11 | T95°C | -55°C to + 70°C | 60 |
| | | T80°C | -55°C to + 55°C | |
| | | T65°C | -55°C to + 40°C | |
| SM87 XBT/A | 11 | T70°C | -55°C to + 55°C | 40 |
| | | T55°C | -55°C to + 40°C | |
| SM87 XBT/B | - | T110°C | -55°C to + 85°C | 20 |
| | | T95°C | -55°C to + 70°C | |
| | | T80°C | -55°C to + 55°C | |
| | | T65°C | -55°C to + 40°C | |
| SM87 LED White | 4 | T70°C | -55°C to + 55°C | 20 |
| | | T55°C | -55°C to + 40°C | |
| SM87 LED Blue | 5.6 | T70°C | -55°C to + 55°C | 20 |
| | | T55°C | -55°C to + 40°C | |