

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: **Baseefa13ATEX0233X**

4 Equipment or Protective System: **Type DB3BE GD Sounder & DB4BE GD Loudspeaker**

5 Manufacturer: **Cooper MEDC Limited**

6 Address: **Unit B, Sutton Parkway, Oddicroft Lane, Sutton-in-Ashfield, NG17 5FB**

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, 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. **GB/BAS/ExTR13.0247/00**

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

EN 60079-0: 2012
EN 60079-1: 2007
EN 60079-7: 2007
EN 60079-31: 2009

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 :

Ex II 2GD Ex de IIC T4 Gb (T_{amb} = -50°C to +70°C)*
Ex tb IIC T135°C Db IP66 (T_{amb} = -50°C to +70°C)* *See Schedule

Baseefa Customer Reference No. **0676**

Project File No. **12/0368**

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R S SINCLAIR
GENERAL MANAGER

On behalf of SGS Baseefa Limited

13

Schedule

14

Certificate Number Baseefa13ATEX0233X

15 Description of Equipment or Protective System

The DB4BE GD Loudspeaker may be rated up to 100V at either 8W, 15W or 25W and comprises a cylindrical body and covers all moulded in Glass reinforced polyester. The front cover is an irregular shape which when fitted forms a chamber for the speaker driver assembly and is permanently sealed/filled with a potting compound. In the front of this cover is a fine stainless steel mesh pressed metal wire element to facilitate sound transmission.

The circular rear cover closes an Ex e terminal enclosure and is secured by three M5 stainless steel screws. The screws may be profiled to be retained within the rear cover during assembly/dis-assembly. The Ex e chamber houses a terminal block of either 4, 6 or 8 (2x4) Ex e connections, Component Certified to SIRA01ATEX3247U.

The base of this enclosure then forms the cover of the flameproof chamber and with integral cables passing through a potted bushing arrangement. The terminal enclosure is fixed with six M5 x 20mm long stainless steel socket head screws of grade A2-70 minimum. The screws may be profiled to be retained within the rear cover during assembly/dis-assembly. The flameproof chamber houses an assembly of a transformer and a control/terminal PCB.

Up to two M20 or M25 cable entries are provided in the side of the enclosure to accommodate suitably certified cable entry devices.

A plastic horn assembly (with either a long or short flare) is fitted externally to the front, and along the sides, of the enclosure, together with a mounting bracket. When the short flare is fitted the ingress protection rating is reduced to IP65.

The 8W units are marked with a T4/T135°C ($T_{amb} = -50^{\circ}\text{C}$ to $+70^{\circ}\text{C}$) and/or T5/T100°C ($T_{amb} = -50^{\circ}\text{C}$ to $+55^{\circ}\text{C}$) and/or T6/T85°C ($T_{amb} = -50^{\circ}\text{C}$ to $+40^{\circ}\text{C}$) Temperature Class/Ambient combination.

The 15W units are marked with a T4/T135°C ($T_{amb} = -50^{\circ}\text{C}$ to $+65^{\circ}\text{C}$) and/or T5/100°C ($T_{amb} = -50^{\circ}\text{C}$ to $+55^{\circ}\text{C}$) and/or T6/T85°C ($T_{amb} = -50^{\circ}\text{C}$ to $+40^{\circ}\text{C}$) Temperature Class/Ambient combination.

The 25W units are marked with a T4/T135°C ($T_{amb} = -50^{\circ}\text{C}$ to $+55^{\circ}\text{C}$) and/or T5/T100°C ($T_{amb} = -50^{\circ}\text{C}$ to $+40^{\circ}\text{C}$) Temperature Class/Ambient combination.

Variation 0.1

The DB3BE GD Sounder is rated up to 254V, 15W and is identical in construction to the above Loudspeaker except that the flameproof chamber contains different components, including sound generating PCB's (with both AC & DC variants).

The Sounders are marked with a T4/T135°C ($T_{amb} = -50^{\circ}\text{C}$ to $+70^{\circ}\text{C}$) and/or T5/100°C ($T_{amb} = -50^{\circ}\text{C}$ to $+55^{\circ}\text{C}$) and/or T6/T85°C ($T_{amb} = -50^{\circ}\text{C}$ to $+40^{\circ}\text{C}$) Temperature Class/Ambient combination

16 Report Number

Confidential Report Number GB/BAS/ExTR13.0247/00

17 Specific Conditions of Use

1. For replacement purposes the cover fixing screws shall be of stainless steel grade A2-70 or stronger
2. Painting and surface finishes, other than those applied by the manufacturer, are not permitted
3. When the unit is used in dust atmospheres the cable entries used shall be sealed to maintain the IP6X rating, in accordance with the applicable installation codes.
4. Not more than one single or multiple strand wiring 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.
5. Leads connected to the terminals shall be insulated for at least 275V and this insulation shall extend to within 1mm of the metal of the terminal throat.
6. Minimum creepage and clearance distances between the terminals and adjacent conductive parts (including cable entry devices) must be at least 6mm.
7. All terminal screws, used and unused, shall be tightened down.

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
# 399-101 Sheets 1 to 3	A	22/11/2013	General Arrangement, DB4B Speaker
# 419-107	A	22/11/2013	General Arrangement, DB3B Sounder
@ 419-108	A	22/11/2013	General Arrangement, Ex e Chamber
* 399-105	A	14-10-13	Certification Labels, DB4BE Ex de & Ex tb Speaker
* 419-112	A	14-10-13	Certification Labels, DB3BE Ex de & Ex tb Sounder
^ 419-177	A	22/11/2013	Pressed Wire Element, Extra Fine Mesh

Drawing common to this certificate and IECEX BAS 13.0112X, IECEX BAS 13.0113X, IECEX BAS 13.0114X and IECEX BAS 13.0115X together with Baseefa13ATEX0229X, Baseefa13ATEX0231X, and Baseefa13ATEX0232X and are held on IEC Ex BAS13.0112X

@ Drawing common to this certificate and IECEX BAS 13.0114X, IECEX BAS 13.0115X and Baseefa13ATEX0232X and are held on IEC Ex BAS 13.0114X

* Drawing common to this certificate and IECEX BAS 13.0115X and is held on the latter.

^ Drawing common to this certificate and IECEX BAS 13.0113X, IECEX BAS 13.0115X and Baseefa13ATEX0231X and are held on IEC ExBAS13.0113X.

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: **Baseefa13ATEX0233X/1**

4 Equipment or Protective System: **Type DB3BE GD Sounder & DB4BE GD Loudspeaker**

5 Manufacturer: **Cooper MEDC Limited**

6 Address: **Unit B, Sutton Parkway, Oddicroft Lane, Sutton-in-Ashfield, NG17 5FB**

7 This supplementary certificate extends EC – Type Examination Certificate No. Baseefa13ATEX0233X 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.

Baseefa Customer Reference No. 0676

Project File No. 14/0221

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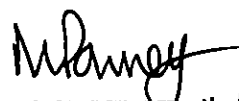
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P R S SINCLAIR
GENERAL MANAGER

On behalf of SGS Baseefa Limited

13

Schedule

14

Certificate Number Baseefa13ATEX0233X/1

15 **Description of the variation to the Equipment or Protective System**

Variation 1.1

An increase in the maximum pore size of the fine mesh stainless steel pressed wire element.

16 **Report Number**

Baseefa Confidential Report No. GB/BAS/ExTR14.0082/00

17 **Specific Conditions of 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
419-177	B	10/03/14	Pressed wire Element, Extra Fine Mesh, Basket Weave

This drawing is common to IECEx BAS 13.0113X, IECEx BAS 13.0115X and Baseefa13ATEX0231X.

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: **Baseefa13ATEX0233X/2**
- 4** Equipment or Protective System: **Type DB3BE GD Sounder & DB4BE GD Loudspeaker**
- 5** Manufacturer: **Copper MEDC Limited**
- 6** Address: **Unit B, Sutton Parkway, Oddicroft, Sutton-in-Ashfield, NG17 5FB**
- 7** This supplementary certificate extends EC – Type Examination Certificate No. **Baseefa13ATEX0233X** 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.

Baseefa Customer Reference No. **0676**

Project File No. **14/0834**

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13 **Schedule**

14 **Certificate Number Baseefa13ATEX0233X/2**

15 **Description of the variation to the Equipment or Protective System**

Variation 2.1

To allow the option of including an additional internal earth terminal within the chamber of the equipment.

16 **Report Number**

Baseefa certification report: GB/BAS/ExTR14.0304/00

17 **Specific Conditions of Use**

See previous certificates.

1. If used, internal optional earthing material shall be anti-corrosive.

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	Sheet	Issue	Date	Description
*419-108	1 of 1	B	17-09-14	DB3B/DB4B EXE CHAMBER ATEX/IECEX CERTIFICATION GA

*This drawing is common to this certificate and IECEX BAS 13.0114X, IECEX BAS 13.0115X and Baseefa13ATEX0232X and is held on IECEX BAS 13.0114X.