



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 : **BAS00ATEX2097X**

4 Equipment or Protective System: **TYPE DB4 SPEAKER UNIT**

5 Manufacturer: **MEDC**

6 Address: **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 The Electrical Equipment Certification Service, notified body number 600 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 N°

BASEEFA Report No. 00(CI)0430 dated 16 June 2000

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

EN 50014: 1997 + Amds 1 & 2

EN 50018: 1994

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. 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:-



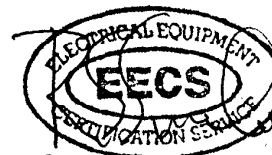
II 2G

EEx d IIC T4 (see schedule)

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

File No: **EECS 0676/01/362**

This certificate is granted subject to the general conditions of the Electrical Equipment Certification Service. It does not necessarily indicate that the apparatus may be used in particular industries or circumstances.



Electrical Equipment Certification Service
Health and Safety Executive
Harpur Hill, Buxton, Derbyshire. SK17 9JN. United Kingdom
Tel: 01298 28000 Fax: 01298 28244

I M CLEARE
DIRECTOR
20 June 2000



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EC-TYPE EXAMINATION CERTIFICATE N° BAS00ATEX2097X

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Description of Equipment or Protective System

The Type DB4 Speaker Unit is rated up to 100V with a maximum power dissipation of 25 watts for use in an ambient temperature range of -20°C to +50°C. The unit comprises a cylindrical enclosure complete with an external horn flare manufactured in glass reinforced polyester.

The enclosure has the option of either a long or short flare arrangement, each permanently fixed to the cylindrical enclosure body to form the end wall. A stainless steel sinter is mounted internally at the centre of each horn flare to facilitate the transmission of sound energy.

The other end of the body is closed by a flat cover which is secured by 6 off M5 x 25mm stainless steel socket head cap screws grade A2-70 or A 4-80. Each screw may optionally be machined to provide retention within the counterbores of the cover.

The interior of the Type DB4 Speaker Unit comprises a speaker driver unit with a transformer and a 15A terminal block (up to nine way), mounted to the rear. Alternatively the transformer assembly may be replaced by a connector plate arrangement with a 6 way terminal block rated up to 24A.

Internal earthing facilities are provided adjacent to the internal component connections.

Up to two M20 or M25 cable entries are provided in the side wall of the enclosure for the accommodation of suitable BASEEFA certified flameproof cable entry devices, with or without the interposition of a suitable BASEEFA certified flameproof thread adapter. Unused entries are to be fitted with suitable BASEEFA certified flameproof stopping plugs. Suitable flameproof cable entry devices, thread adapters and stopping plugs certified as Equipment (not a Component) under an EC Type Examination Certificate to Directive 94/9/EC may also be used in the manner indicated above.

This apparatus is to be installed and used in accordance with the appropriate codes of practice and the manufacturer's instructions.

This certification is to European Directive 94/9/EC only. Functional performance and compliance with other European directives is the responsibility of the equipment manufacturer and/or the user as appropriate.

VARIATION 0.1

The interior of the unit may be replaced by a speaker driver unit and a sound signal generating PCB to form:-

A Type DB3 Sounder Unit.

In this form the unit may be rated up to 254V a.c. or 48V d.c. with a maximum power dissipation of 15 watts and has a Temperature Classification of T5 with an ambient temperature range of -20°C to +55°C.



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VARIATION 0.2

The above DB4 & DB3 arrangements may be used at a reduced ambient temperature of -55°C. The low ambient temperature models are to remain unpainted and are redesignated as:-

Type DB4L Speaker Units & DB3L Sounder Units

VARIATION 0.3

The maximum power dissipation of the Type DB4 & DB4L Speaker Units may be restricted to less than 15W with a corresponding reduction in the Temperature Classification to T5 and an increased maximum permitted ambient temperature of +55°C.

MARKING SUMMARY

The following table is a summary of the permitted power rating, ambient temperature and Temperature Class combinations permitted for each type of unit:-

Type	Power Rating	Ambient temp	T Class
DB4	≤15W	-20°C to +55°C	T5
	>15W	-20°C to +50°C	T4
DB4L	≤15W	-55°C to +55°C	T5
	>15W	-55°C to +50°C	T4
DB3	≤15W	-20°C to +55°C	T5
DB3L	≤15W	-55°C to +55°C	T5

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Report No.

BASEEFA Certification Report No. 00(CI)0430

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Special Conditions For Safe Use

1. This apparatus is not suitable for use in atmospheres containing carbon disulphide.
2. Painting and surface finishes, other than those applied by the manufacturer, are not permitted.



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Essential Health and Safety Requirements

Essential Health and Safety Requirements not covered by Standards listed at (9)		
Clause	Subject	Compliance
1.0.2	Analysis of possible operating faults	BASEEFA Report No. 00(CI)0430
1.0.3	Special checking and maintenance conditions	No special requirements
1.2.2	Components for incorporation or replacement	Manufacturer's Instructions
1.2.4	Dust deposits	Certification for gas atmospheres only
1.2.5	Additional means of protection	Not applicable
1.2.7	Protection against other hazards	BASEEFA Report No. 00(CI)0430
2.0.	Category M	Not applicable
2.1.	Category 1	Not applicable
2.2.1	Category 2G	BASEEFA Report No. 00(CI)0430
2.2.2	Category 2D	Not applicable
2.3.	Category 3	Not applicable
3.	Requirements for protective systems	Not applicable

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DRAWINGS

Number	Issue	Date	Description
* 199-366 Sheets 1 & 2	A	03/05/00	General Arrangement Type DB4 Speaker Unit
* 219-256	A	04/05/00	General Arrangement DB3 Sounder
* 199-371	A	25/05/00	Alternative Label Positions

* Drawings common to Certificate No. BAS 00ATEX2098X on EECS file No. 0676/01/361

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BASEEFA List Keywords
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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: **BAS00ATEX2097X/1**

4 Equipment or Protective System: **TYPE DB4 SPEAKER UNIT**

5 Manufacturer: **MEDC**

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

7 This supplementary certificate extends EC-Type Examination Certificate No. BAS00ATEX2097X 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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File No: EECS 0676/01/362

This certificate is granted subject to the general conditions of the Electrical Equipment Certification Service. It does not necessarily indicate that the apparatus may be used in particular industries or circumstances.



**I M CLEARE
DIRECTOR
28 July 2000**



**Electrical Equipment Certification Service
Health and Safety Executive
Harpur Hill, Buxton, Derbyshire. SK17 9JN. United Kingdom
Tel: 01298 28000 Fax: 01298 28244**



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Schedule

14 **SUPPLEMENTARY EC-TYPE EXAMINATION CERTIFICATE N° BAS00ATEX2097X/1**

Description of the Variation to the Equipment or Protective System

VARIATION 1.1

Optional addition of a PCB mounted capacitor within the DB4 and DB4L units.

Report No.

Not applicable.

Special Conditions For Safe Use

See original certificate.

Essential Health and Safety Requirements

See original certificate.

DRAWINGS

Number	Sheet	Issue	Date	Description
*199-366	1 & 2	B	17/07/00	General Arrangement Type DB4 Speaker Unit

Drawings common to Certificate No BAS00ATEX2098X held on EEC'S File No. 0676/01/361.

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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: **BAS00ATEX2097X/2**

4 Equipment or Protective System: **TYPE DB4 SPEAKER UNIT**

5 Manufacturer: **MEDC LIMITED**

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

7 This supplementary certificate extends EC-Type Examination Certificate No. BAS00ATEX2097X 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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I M CLEARE
DIRECTOR
16 January 2001



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Schedule

14 **SUPPLEMENTARY EC-TYPE EXAMINATION CERTIFICATE N° BAS00ATEX2097X/2**

Description of the Variation to the Equipment or Protective System

VARIATION 2.1

Alternative type designations for the Type DB4 Speaker Unit comprising:-

LBC 3437/00 (15W unit), or
LBC 3438/00 (25W unit)

Report No.

Not applicable.

Special Conditions For Safe Use

See original certificate.

Essential Health and Safety Requirements

See original certificate.

DRAWINGS

Number	Sheet	Issue	Date	Description
*199-366	1 & 2	B	17/07/00	General Arrangement Type DB4 Speaker Unit

*No drawing change for this variation.

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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: BAS00ATEX2097X/3**

4 **Equipment or Protective System: TYPE DB4 SPEAKER UNIT**

5 **Manufacturer: MEDC LIMITED**

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

7 **This supplementary certificate extends EC-Type Examination Certificate No. BAS00ATEX2097X 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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File No: EECS 0676/01/362

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I M CLEARE
DIRECTOR
15 March 2001



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Schedule

14 **SUPPLEMENTARY EC-TYPE EXAMINATION CERTIFICATE N° BAS00ATEX2097X/3**

Description of the Variation to the Equipment or Protective System

VARIATION 3.1

Alternative terminal arrangement incorporating thermal fuses.

Report No.

Not applicable.

Special Conditions For Safe Use

See original certificate.

Essential Health and Safety Requirements

See original certificate.

DRAWINGS

Number	Sheet	Issue	Date	Description
*199-366	1 & 2	C	01/03/01	General Arrangement Type DB4 Speaker Unit

*Drawing common to Certificate No BAS00ATEX2098X held on EECS file no. 0676/01/361

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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: **BAS00ATEX2097X/4**

4 Equipment or Protective System: **TYPE DB4 SPEAKER UNIT**

5 Manufacturer: **MEDC LIMITED**

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

7 This supplementary certificate extends EC-Type Examination Certificate No. BAS00ATEX2097X 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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File No: EECS 0676/01/362

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I M CLEARE
DIRECTOR
29 August 2001



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Schedule

14 SUPPLEMENTARY EC-TYPE EXAMINATION CERTIFICATE N° BAS00ATEX2097X/4

Description of the Variation to the Equipment or Protective System

VARIATION 4.1

Extension to the scope of this certificate to include Combustible Dust Atmospheres by virtue of compliance with EN 50281-1-1: 1998.

The certification marking is now amended as follows:-

UNIT DESIGNATION		POWER RATING	MARKING
DB4 or	LBC 3437/00	≤15W	⊕ II 2 GD EEx d IIC T100°C (-20°C T _{amb} +55°C)
	LBC 3438/00	>15W	⊕ II 2 GD EEx d IIC T135°C (-20°C T _{amb} +50°C)
DB4L		≤15W	⊕ II 2 GD EEx d IIC T100°C (-55°C T _{amb} +55°C)
		>15W	⊕ II 2 GD EEx d IIC T135°C (-55°C T _{amb} +50°C)
DB3		≤15W	⊕ II 2 GD EEx d IIC T100°C (-20°C T _{amb} +55°C)
DB3L		≤15W	⊕ II 2 GD EEx d IIC T100°C (-55°C T _{amb} +55°C)

Report No.

None.

Special Conditions For Safe Use

In addition to the conditions listed on the previous certificates:-

1. When used in dust atmospheres the flameproof cable entry devices or stopping plugs shall be selected and installed to maintain the dust tight (IP6X) integrity of the enclosure.

Essential Health and Safety Requirements

The requirements for dust atmospheres (i.e. Category 2D) are now met by virtue of compliance with EN 50281-1-1: 1998.

DRAWINGS

Number	Issue	Date	Description
*199-366 Sheets 1 & 2	D	06/08/01	General Arrangement Type DB4 Speaker
*219-256	B	06/08/01	General Arrangement Type DB3 Sounder

* Drawings are common to Certificate No. BAS00ATEX2098X/3 and are held on EECS file No. 0676/01/362.

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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 : **BAS00ATEX2097X/5**
- 4** Equipment or protective system: **DB4 SPEAKER UNIT**
- 5** Manufacturer : **MEDC**
- 6** Address : **Colliery Road, Pinxton, Nottingham NG16 6JF**
- 7** This supplementary certificate, issued by Baseefa (2001) Ltd., Notified Body Number 1180, extends EC - Type Examination Certificate No.BAS00ATEX2097X 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

The Electrical Equipment Certification Service, Notified Body Number 0600, retains responsibility for its original documentation. Baseefa (2001) Ltd. is responsible only for the additional work relating to this supplementary certificate and any other supplementary certificate that it has issued.

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

Baseefa (2001) Ltd. Customer Reference No.0676

Project File No.02/0208

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.

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

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Schedule

Description of the variation to the Equipment or Protective System

Variation 5.1

Introduction of an ½" NPT cable entry option for the Type DB3 & DB3L Sounder Units only.

Variation 5.2

Optional increase in the maximum permitted ambient temperature to 70°C for units rated up to 15W only.

Units marked with the 70°C ambient have a Temperature Classification of T135°C.

Report No.

Baseefa Certification Report No. 02(C)0208

Special Conditions for Safe Use

As original certificate

Essential Health and Safety Requirements

As original certificate

Drawings and Documents

<u>Number</u>	<u>Issue</u>	<u>Date</u>	<u>Description</u>
* 199-366 Sheets 1 & 2	E	08/03/02	General Arrangement, DB4 Speaker
* 219-256	C	07/03/02	General Arrangement, DB3 Sounder

* These drawings are common to BAS00ATEX2098X