



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: **BAS00ATEX1259X – Issue 3**

4 Equipment or Protective System: **Sounders Type DB5 and DB51**

5 Manufacturer: **Cooper MEDC Limited**

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

7 This re-issued certificate extends EC – Type Examination Certificate No. BAS00ATEX1259 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.

8 The original certificate was issued by The Electrical Equipment Certification Service, Notified Body Number 0600, which retains responsibility for its original documentation. Baseefa, Notified Body Number 1180, is responsible only for the additional work relating to this re-issued certificate and any other supplementary certificate it has issued.

The examination and test results are recorded in confidential Report No's:
GB/BAS/ExTR08.0089 & GB/BAS-ExTR09.0145

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

EN 60079-0:2006 EN 60079-11:2007 EN60079-26:2007

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 ia IIC T4 Ga (-20°C to +55°C)

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

Baseefa Customer Reference No. **0676**

Project File No. **07/1025**

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

A handwritten signature in blue ink, appearing to read "R S Sinclair".

R S SINCLAIR
DIRECTOR
On behalf of
Baseefa

Baseefa
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Buxton, Derbyshire SK17 9RZ
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Baseefa is a trading name of Baseefa Ltd
Registered in England No. 4305578. Registered address as above.

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Schedule

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Certificate Number BAS00ATEX1259X – Issue 3

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Description of Equipment or Protective System

The Sounder Types DB5 & DB51 are designed to produce an audio signal.

The sounders comprise an electronic circuit on a printed circuit board and an inductive sounder device. The PCB is potted into a plastic enclosure which is mounted into a plastic base which forms a terminal enclosure.

Sounder DB5

U_i	= 28V
I_i	= 28mA
P_i	= 810mW
C_i	= 0
L_i	= 20mH + 1000 Ω
L_i/R_i	= 20 μ H/ Ω

The DB5 sounder has internal resistance that limits the input current to 28mA when connected to a 28V source, so may be connected to power sources having an output current (I_o) greater than 28mA but not exceeding 150mA without compromising safety.

An optional end-of-line resistor may be connected across the input terminals.

Sounder DB51

U_i	= 15.7V
I_i	= 37mA
P_i	= 560mW
C_i	= 0
L_i	= 20mH
R_i	= 325 Ω
L_i/R_i	= 61.5 μ H/ Ω

The DB51 sounder has internal resistance that limits the input current to 37mA when connected to a 15.7V source, so may be connected to power sources having an output current (I_o) greater than 37mA but not exceeding 150mA without compromising safety. The DB51 must be powered from a resistively limited source.

An optional end-of-line resistor may be connected across the input terminals.

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Report Number

GB/BAS/ExTR08.0089/00 & GB/BAS/ExTR08.0145/00

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Special Conditions for Safe Use

1. By virtue of its shape, design and position of intended use, it is considered not to be an electrostatic risk, however the apparatus must not be installed in a position where it may be subjected to an excessive dust laden airflow.
2. The equipment must only be cleaned using a damp cloth.



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

New drawings submitted for this variation.

Number	Sheet	Issue	Date	Description
131-178 *	1	B	13-10-09	“Fulleon” Transducer
187-250	1	A	26-06-09	DB5 ATEX Certification GA
187-182 LO *	1	E	06-08-09	DB5 DC PCB Artwork
187-182 SS1 *	1	E	06-08-09	DB5 DC PCB Artwork
187-182 SS2 *	1	E	06-08-09	DB5 DC PCB Artwork
187-251	1	A	07-08-09	DB5 ATEX Certification Label
187-252	1	A	07-08-09	DB51 ATEX Certification Label

Note* - These drawings are held with IECEx BAS08.0043X

Current drawings also associated with this certificate.

Number	Sheet	Issue	Date	Description
187-180 **	1	B	06/08/01	Certification Circuit Diagram DB5 New Tones Chip
187-184 **	1	B	06/08/01	Certification Circuit Diagram DB51 New Tones Chip

Note** - These drawings have previously been stamped for existing variations to this certificate, and separate copies are also held with IECEx BAS08.0043X

Drawing 187-233 is now obsolete.

20 Certificate History

Certificate No.	Date	Comments
BAS00ATEX1259	1 March 2001	The release of the prime certificate. The associated test and assessment is documented in Test Report 00(C)0771.
BAS00ATEX1259/1	17 October 2001	To permit the addition of a component and related PCB changes that do not affect the intrinsic safety assessment.
BAS00ATEX1259/2	3 April 2006	To permit the use of an alternative label for the DB5.
BAS00ATEX1259X Issue 3	21 December 2009	To permit the use of a revised label. A certificate suffix X has been added to address anti-static requirements of the latest standards. This issue incorporates previously issued primary and supplementary certificates into one certificate, permits marking changes and confirms that the current design meets the requirements of EN 60079-0:2006, EN 60079-11:2007 and EN 60079-26:2007. In addition the marking is considered to comply with the markings of EN 60079-0:2009.

For drawings applicable to each issue, see original of that issue.



EC-TYPE EXAMINATION CERTIFICATE

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

EC-Type Examination Certificate Number : **BAS00ATEX1259**

Equipment or Protective System: **SOUNDER TYPES DB5 AND DB51**

Manufacturer: **MEDC LIMITED**

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

This equipment or protective system and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

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°

00(C)0771 dated 22 January 2001

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

EN 50014: 1997 + Amds 1 & 2 **EN 50020: 1994** **EN 50284: 1999**

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

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.

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.

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

Ex II 1 G **EEx ia IIC T4** **(-20°C ≤ T_a ≤ +55°C)**

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

File No: **EECS 0676/02/014**

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
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I M CLEARE
DIRECTOR
1 March 2001



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Schedule

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EC-TYPE EXAMINATION CERTIFICATE N° BAS00ATEX1259

15

Description of Equipment or Protective System

The Sounder Type DB5 and DB51 are designed to produce an audio signal.

The sounder comprises an electronic circuit on a printed circuit board and an inductive sounder device. The PCB is potted into a plastic enclosure which is mounted into a plastic base which forms a terminal enclosure.

Sounder Type DB5

$U_i = 28V$
 $I_i = 28mA$
 $P_i = 0.81W$
 $C_i = 0$
 $L_i = 20mH + 1000 \text{ ohms}$ (L_i may be considered to be negligible i.e. $L_i = 0$)

The DB5 sounder has an internal resistance R_i of 1000Ω which ensures that the input current limit I_i for inductive safety is not exceeded.

Sounder Type DB51

$U_i = 15.7V$
 $I_i = 37mA$
 $P_i = 0.56W$
 $C_i = 0$
 $L_i = 20mH + 325 \text{ ohms}$
 $L_i/R_i = 61.5\mu H/\Omega$

The DB51 sounder has an internal resistance R_i , which may be used in conjunction with the source resistance, to ensure that the input current limit I_i for inductive safety, is not exceeded.

By virtue of its shape, design and position of use, it is assessed that the apparatus is not considered to be an electrostatic risk, however, the apparatus must not be installed in a position where it may be subjected to an excessive air flow that may cause an electrostatic build-up.

An optional end-of-line resistor may be connected across the input terminals

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Report No

00(C)0771

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Special Conditions For Safe Use

None



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EC-TYPE EXAMINATION CERTIFICATE N° BAS00ATEX1259

18. Essential Health and Safety Requirements

ESSENTIAL HEALTH & SAFETY REQUIREMENTS not covered by standards listed in Section 9		
Clause	Subject	Compliance
1.1.3	Changes in characteristics of materials and combinations thereof	Report No 00(C)0771 Clause 6.1.1.3
1.2.2	Components for incorporation or replacement	Report No 00(C)0771 Clause 6.1.2.2
1.2.5	Additional means of protection	Report No 00(C)0771 Clause 6.1.2.5
1.2.7	Protection against other hazards	Report No 00(C)0771 Clause 6.1.2.7
1.4.2	Withstanding attack by aggressive substances	Report No 00(C)0771 Clause 6.1.4.2

19 DRAWINGS

Number	Sheet	Issue	Date	Description
187-193	1	A	17.11.00	General Assembly of DB5 Sounder
187-194	1	A	17.11.00	General Assembly of DB51 Sounder
187-180	1	A	29.08.00	Circuit Diagram DB5 new tones chip
187-184	1	A	04.12.00	Circuit Diagram DB51 new tones chip
131-178	1	A	29.08.00	'Fulleon' Transducer
187-182 SS	1	B	09.01.01	DB5 DC PCB Artwork
187-182 LO	1	B	09.01.01	DB5 DC PCB Artwork

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

BASEEFA List Keywords
2ALARMS



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: **BAS00ATEX1259/1**

4 Equipment or Protective System: **SOUNDER TYPES DB5 AND DB51**

5 Manufacturer: **MEDC LIMITED**

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

7 This supplementary certificate extends EC-Type Examination Certificate No. BAS00ATEX1259 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.

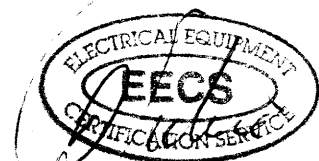
This certificate may only be reproduced in its entirety and without any change, schedule included.

File No: EECS 0676/02/014

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
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P. M. CLEARE
DIRECTOR
17 October 2001



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Schedule

14 **SUPPLEMENTARY EC-TYPE EXAMINATION CERTIFICATE N° BAS00ATEX1259/1**

Description of the Variation to the Equipment or Protective System

VARIATION 1.1

To permit the addition of a component and subsequent changes to the pcb, none of which affect the intrinsic safety assessment.

Report No.

None.

Special Conditions For Safe Use

None.

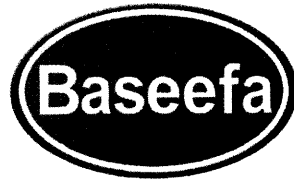
Essential Health and Safety Requirements

See original certificate.

DRAWINGS

Number	Sheet	Issue	Date	Description
187-180	1	B	06.08.01	Circuit Diagram DB5 new tones chip
187-184	1	B	06.08.01	Circuit Diagram DB51 new tones chip
187-182 SS	1	C	25.07.01	DB5 DC PCB Artwork
187-182 LO	1	C	25.07.01	DB5 DC PCB Artwork

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



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: **BAS00ATEX1259X – Issue 3**

4 Equipment or Protective System: **Sounders Type DB5 and DB51**

5 Manufacturer: **Cooper MEDC Limited**

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

7 This re-issued certificate extends EC – Type Examination Certificate No. BAS00ATEX1259 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

8 The original certificate was issued by The Electrical Equipment Certification Service, Notified Body Number 0600, which retains responsibility for its original documentation. Baseefa, Notified Body Number 1180, is responsible only for the additional work relating to this re-issued certificate and any other supplementary certificate it has issued.

The examination and test results are recorded in confidential Report No's:
GB/BAS/ExTR08.0089 & GB/BAS-ExTR09.0145

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

EN 60079-0:2006 EN 60079-11:2007 EN60079-26:2007

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 ia IIC T4 Ga (-20°C to +55°C)

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

Baseefa Customer Reference No. 0676

Project File No. 07/1025

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

R S SINCLAIR
DIRECTOR
On behalf of
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Baseefa is a trading name of Baseefa Ltd
Registered in England No. 4305578. Registered address as above.



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Schedule

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Certificate Number BAS00ATEX1259X – Issue 3

15 Description of Equipment or Protective System

The Sounder Types DB5 & DB51 are designed to produce an audio signal.

The sounders comprise an electronic circuit on a printed circuit board and an inductive sounder device. The PCB is potted into a plastic enclosure which is mounted into a plastic base which forms a terminal enclosure.

Sounder DB5

U_i	= 28V
I_i	= 28mA
P_i	= 810mW
C_i	= 0
L_i	= 20mH + 1000 Ω
L_i / R_i	= 20 μ H/ Ω

The DB5 sounder has internal resistance that limits the input current to 28mA when connected to a 28V source, so may be connected to power sources having an output current (I_o) greater than 28mA but not exceeding 150mA without compromising safety.

An optional end-of-line resistor may be connected across the input terminals.

Sounder DB51

U_i	= 15.7V
I_i	= 37mA
P_i	= 560mW
C_i	= 0
L_i	= 20mH
R_i	= 325 Ω
L_i / R_i	= 61.5 μ H/ Ω

The DB51 sounder has internal resistance that limits the input current to 37mA when connected to a 15.7V source, so may be connected to power sources having an output current (I_o) greater than 37mA but not exceeding 150mA without compromising safety. The DB51 must be powered from a resistively limited source.

An optional end-of-line resistor may be connected across the input terminals.

16 Report Number

GB/BAS/ExTR08.0089/00 & GB/BAS/ExTR08.0145/00

17 Special Conditions for Safe Use

1. By virtue of its shape, design and position of intended use, it is considered not to be an electrostatic risk, however the apparatus must not be installed in a position where it may be subjected to an excessive dust laden airflow.
2. The equipment must only be cleaned using a damp cloth.



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

New drawings submitted for this variation.

Number	Sheet	Issue	Date	Description
131-178 *	1	B	13-10-09	"Fulleon" Transducer
187-250	1	A	26-06-09	DB5 ATEX Certification GA
187-182 LO *	1	E	06-08-09	DB5 DC PCB Artwork
187-182 SS1 *	1	E	06-08-09	DB5 DC PCB Artwork
187-182 SS2 *	1	E	06-08-09	DB5 DC PCB Artwork
187-251	1	A	07-08-09	DB5 ATEX Certification Label
187-252	1	A	07-08-09	DB51 ATEX Certification Label

Note* - These drawings are held with IECEx BAS08.0043X

Current drawings also associated with this certificate.

Number	Sheet	Issue	Date	Description
187-180 **	1	B	06/08/01	Certification Circuit Diagram DB5 New Tones Chip
187-184 **	1	B	06/08/01	Certification Circuit Diagram DB51 New Tones Chip

Note** - These drawings have previously been stamped for existing variations to this certificate, and separate copies are also held with IECEx BAS08.0043X

Drawing 187-233 is now obsolete.

20 Certificate History

Certificate No.	Date	Comments
BAS00ATEX1259	1 March 2001	The release of the prime certificate. The associated test and assessment is documented in Test Report 00(C)0771.
BAS00ATEX1259/1	17 October 2001	To permit the addition of a component and related PCB changes that do not affect the intrinsic safety assessment.
BAS00ATEX1259/2	3 April 2006	To permit the use of an alternative label for the DB5.
BAS00ATEX1259X Issue 3	21 December 2009	To permit the use of a revised label. A certificate suffix X has been added to address anti-static requirements of the latest standards. This issue incorporates previously issued primary and supplementary certificates into one certificate, permits marking changes and confirms that the current design meets the requirements of EN 60079-0:2006, EN 60079-11:2007 and EN 60079-26:2007. In addition the marking is considered to comply with the markings of EN 60079-0:2009.

For drawings applicable to each issue, see original of that issue.



EC - TYPE EXAMINATION CERTIFICATE

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

EC - Type Examination Certificate Number: **BAS00ATEX1259X – Issue 4**

Equipment or Protective System: **Sounders Type DB5 and DB51**

Manufacturer: **Cooper MEDC Limited**

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

This re-issued certificate extends EC – Type Examination Certificate No. BAS00ATEX1259 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

The original certificate was issued by The Electrical Equipment Certification Service, Notified Body Number 0600, which retains responsibility for its original documentation. Baseefa, Notified Body Number 1180, is responsible only for the additional work relating to this re-issued certificate and any other supplementary certificate it has issued.

The examination and test results are recorded in confidential Report No: **GB/BAS/ExTR11.0010/00**

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

EN 60079-0:2006 EN 60079-11:2007 EN60079-26:2007

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

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.

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.

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

⊕ II 1G Ex ia IIC T4 (-20°C to +55°C) Ga

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

Baseefa Customer Reference No. **0676**

Project File No. **11/0006**

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

Baseefa

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e-mail info@baseefa.com web site www.baseefa.com
Baseefa is a trading name of Baseefa Ltd
Registered in England No. 4305578. Registered address as above.

DR Sinclair
PP DBREARLEY

R S SINCLAIR
DIRECTOR
On behalf of
Baseefa

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Schedule

14

Certificate Number BAS00ATEX1259X – Issue 4

15 Description of Equipment or Protective System

The Sounder Types DB5 & DB51 are designed to produce an audio signal.

The sounders comprise an electronic circuit on a printed circuit board and an inductive sounder device. The PCB is potted into a plastic enclosure which is mounted into a plastic base which forms a terminal enclosure.

Sounder DB5

U_i	= 28V
I_i	= 28mA
P_i	= 810mW
C_i	= 0
L_i	= 20mH + 1000 Ω
L_i / R_i	= 20 μ H/ Ω

The DB5 sounder has internal resistance that limits the input current to 28mA when connected to a 28V source, so may be connected to power sources having an output current (I_o) greater than 28mA but not exceeding 150mA without compromising safety.

An optional end-of-line resistor may be connected across the input terminals.

Sounder DB51

U_i	= 15.7V
I_i	= 37mA
P_i	= 560mW
C_i	= 0
L_i	= 20mH
R_i	= 325 Ω
L_i / R_i	= 61.5 μ H/ Ω

The DB51 sounder has internal resistance that limits the input current to 37mA when connected to a 15.7V source, so may be connected to power sources having an output current (I_o) greater than 37mA but not exceeding 150mA without compromising safety. The DB51 must be powered from a resistively limited source.

An optional end-of-line resistor may be connected across the input terminals.

16 Report Number

GB/BAS/ExTR11.0010/00

17 Special Conditions for Safe Use

1. By virtue of its shape, design and position of intended use, it is considered not to be an electrostatic risk, however the apparatus must not be installed in a position where it may be subjected to an excessive dust laden airflow.
2. The equipment must only be cleaned using a damp cloth.



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

New drawings submitted for this variation.

Number	Sheet	Issue	Date	Description
187-265	1	A	23/12/10	DB5 ATEX RTK AGENCY Certification Label

Current drawings also associated with this certificate.

Number	Sheet	Issue	Date	Description
131-178 *	1	B	13-10-09	“Fulleon” Transducer
187-250	1	A	26-06-09	DB5 ATEX Certification GA
187-182 LO *	1	E	06-08-09	DB5 DC PCB Artwork
187-182 SS1 *	1	E	06-08-09	DB5 DC PCB Artwork
187-182 SS2 *	1	E	06-08-09	DB5 DC PCB Artwork
187-251	1	A	07-08-09	DB5 ATEX Certification Label
187-252	1	A	07-08-09	DB51 ATEX Certification Label
187-180 *	1	B	06/08/01	Certification Circuit Diagram DB5 New Tones Chip
187-184 *	1	B	06/08/01	Certification Circuit Diagram DB51 New Tones Chip

Note* - These drawings are held with IECEx BAS 08.0043X

20 Certificate History

Certificate No.	Date	Comments
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BAS00ATEX1259/1	17 October 2001	To permit the addition of a component and related PCB changes that do not affect the intrinsic safety assessment.
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BAS00ATEX1259X Issue 4	14 January 2011	To permit the use of an alternative label for Sounder type DB5.

For drawings applicable to each issue, see original of that issue.

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: **BAS00ATEX1259X – Issue 5**

4 Equipment or Protective System: **Sounders Type DB5 and DB51**

5 Manufacturer: **Cooper MEDC Limited**

6 Address: **Unit B, Sutton Parkway, Oddicroft Lane, Sutton-in-Ashfield, NG17 5FB
(formerly of 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, 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's. See **certificate history**

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

EN 60079-0: 2012 EN 60079-11: 2012 EN60079-26: 2007

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 1G Ex ia IIC T4 Ga (-20°C to +55°C)

Baseefa Customer Reference No. **0676**

Project File No. **13/0725**

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R S SINCLAIR *PP DOREARLEY*
GENERAL MANAGER

On behalf of SGS Baseefa Limited

13

Schedule

14

Certificate Number BAS00ATEX1259X – Issue 5

15 Description of Equipment or Protective System

The Sounder Types DB5 & DB51 are designed to produce an audio signal.

The sounders comprise an electronic circuit on a printed circuit board and an inductive sounder device. The PCB is potted into a plastic enclosure which is mounted into a plastic base which forms a terminal enclosure.

Sounder DB5

$$\begin{aligned}U_i &= 28V \\I_i &= 28mA \\P_i &= 810mW \\C_i &= 0 \\L_i &= 20mH + 1000\Omega \\L_i/R_i &= 20\mu H/\Omega\end{aligned}$$

The DB5 sounder has internal resistance that limits the input current to 28mA when connected to a 28V source, so may be connected to power sources having an output current (I_o) greater than 28mA but not exceeding 150mA without compromising safety.

An optional end-of-line resistor may be connected across the input terminals.

Sounder DB51

$$\begin{aligned}U_i &= 15.7V \\I_i &= 37mA \\P_i &= 560mW \\C_i &= 0 \\L_i &= 20mH \\R_i &= 325\Omega \\L_i/R_i &= 61.5\mu H/\Omega\end{aligned}$$

The DB51 sounder has internal resistance that limits the input current to 37mA when connected to a 15.7V source, so may be connected to power sources having an output current (I_o) greater than 37mA but not exceeding 150mA without compromising safety. The DB51 must be powered from a resistively limited source.

An optional end-of-line resistor may be connected across the input terminals.

16 Report Number

See certificate history

17 Special Conditions for Safe Use

1. By virtue of its shape, design and position of intended use, it is considered not to be an electrostatic risk, however the apparatus must not be installed in a position where it may be subjected to an excessive dust laden airflow.
2. The equipment must only be cleaned using a damp cloth.

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

New drawings submitted for this variation.

Number	Sheet	Issue	Date	Description
187-250	1 of 1	C	11-12-13	DB5 & DB51 ATEX Certification GA
187-251	1 of 1	B	20-03-14	DB5 ATEX Certification Label
187-252	1 of 1	B	20-03-14	DB51 ATEX Certification Label
187-265	1 of 1	B	20-03-14	DB5 ATEX RTK AGENCY Certification Label

Note: These drawings are held with Baseefa00ATEX1259X.

Current drawings also associated with this certificate.

Number	Sheet	Issue	Date	Description
131-178	1 of 1	B	13-10-09	“Fulleon” Transducer
187-180	1 of 1	B	06/08/01	Certification Circuit Diagram DB5 New Tones Chip
187-182 LO	1 of 1	E	06-08-09	DB5 DC PCB Artwork
187-182 SS1	1 of 1	E	06-08-09	DB5 DC PCB Artwork
187-182 SS2	1 of 1	E	06-08-09	DB5 DC PCB Artwork
187-184	1 of 1	B	06/08/01	Certification Circuit Diagram DB51 New Tones Chip

Note: These drawings are associated and held with IECEX BAS 08.0043X

20 Certificate History

Certificate No.	Date	Comments
BAS00ATEX1259	1 March 2001	The release of the prime certificate. The associated test and assessment is documented in Test Report 00(C)0771.
BAS00ATEX1259/1	17 October 2001	To permit the addition of a component and related PCB changes that do not affect the intrinsic safety assessment.
BAS00ATEX1259/2	3 April 2006	To permit the use of an alternative label for the DB5.
BAS00ATEX1259X Issue 3	21 December 2009	To permit the use of a revised label. A certificate suffix X has been added to address anti-static requirements of the latest standards. This issue incorporates previously issued primary and supplementary certificates into one certificate, permits marking changes and confirms that the current design meets the requirements of EN 60079-0:2006, EN 60079-11:2007 and EN 60079-26:2007. In addition the marking is considered to comply with the markings of EN 60079-0:2009. The associated test and assessment is documented in Test Reports GB/BAS/ExTR08.0089/00 and GB/BAS/ExTR08.0145/00.
BAS00ATEX1259X Issue 4	14 January 2011	To permit the use of an alternative label for Sounder type DB5. The associated test and assessment is documented in Test Report GB/BAS/ExTR11.0010/00.

Certificate No.	Date	Comments
BAS00ATEX1259X Issue 5	3 April 2014	To permit the use of alternative encapsulant types for sounder type DB5 and DB51 and confirm that the current design meets the requirements of EN 60079-0:2012, EN 60079-11:2012 and EN 60079-26:2007. The associated test and assessment is documented in Test Report GB/BAS/ExTR14.0074/00.
For drawings applicable to each issue, see original of that issue.		