

## Ex d(e), Weatherproof



### Introduction

The DB3B is a high power explosion proof sounder, introduced as a replacement for the current DB3 with improved functionality and performance. Certified for use in a wide range of temperatures from -55°C to +70°C the Ex enclosure is manufactured from GRP with a rugged thermoplastic flare providing a corrosion free and aesthetically pleasing product.

Capable of producing 125dB @ 1m and with a range of pre-recorded tones, the DB3B includes an integral volume control which is ideal when a lower output is required.

The unit is provided with versatile control options allowing compatibility with a wide range of control methods and PLCs. The standard DC unit provides 3 tone stages, each stage has 28 tones available which can be independently selected. The unit can be controlled by reversing the polarity of the power supply (2 stage) or providing a common negative and switching between multiple positive supplies. The DB3B proves its versatility by additionally being able to work with a common positive supply and switching the negatives. The tone stages of the DB3B can also be controlled via voltage free contacts provided by a control panel.

The flexibility of the range continues with a wide range of supply voltages. The short flare option is worthy addition to the range offering a high SPL in a compact unit.

### Features

- Ex d / Ex de IIC/IIIC T4/T5/T6.
- ATEX certified.
- IECEx certified.
- Certified temperature -55°C to +70°C.\*
- IP66 & IP67.
- Optional Ex e terminal chamber.
- Up to 125dB output @ 1m.
- Integral volume control.
- 28 tones, user selectable.
- 3 stage unit remotely switchable.
- Tones can be programmed to customer's specification.
- DC supply voltage between 12V and 48V.
- End of line resistor option.
- Sounder & beacon combination units available, for further details contact MEDC.
- Ex enclosure - Glass reinforced polyester.
- Flare - High impact thermoplastic polyester.
- Stainless Steel mounting bracket and cover screws.
- Mounting bracket has ratchet facility as standard.
- Optional swivel bracket available.

*\*Model Dependent.*



Short Flare Version



# Certification and Specification

<b>ATEX Ex d Gas:</b>	Cert. no. Baseefa13ATEX0229X. Certified to: EN60079-0, EN60079-1. Ex II 2 G, Ex d IIC T4/T5/T6 Gb.
<b>ATEX Ex d Gas &amp; Dust:</b>	Cert. no. Baseefa13ATEX0231X. Certified to: EN60079-0, EN60079-1, EN60079-31. Ex II 2 GD, Ex d IIC T4/T5/T6 Gb, Ex tb IIIC T135°C/T100°C/T85°C Db, IP66.
<b>ATEX Ex de Gas:</b>	Cert. no. Baseefa13ATEX0232X. Certified to: EN60079-0, EN60079-1, EN60079-7. Ex II 2 G, Ex de IIC T4/T5/T6 Gb.
<b>ATEX Ex de Gas &amp; Dust:</b>	Cert. no. Baseefa13ATEX0233X. Certified to: EN60079-0, EN60079-1, EN60079-7, EN60079-31. Ex II 2 GD, Ex de IIC T4/T5/T6 Gb, Ex tb IIIC T135°C/T100°C/T85°C Db, IP66.
<b>IECEX Ex d Gas:</b>	Cert. no. IECEX BAS 13.0112X. Certified to: IEC60079-0, IEC60079-1. Ex d IIC T4/T5/T6 Gb.
<b>IECEX Ex d Gas &amp; Dust:</b>	Cert. no. IECEX BAS 13.0113X. Certified to: IEC60079-0, IEC60079-1, IEC60079-31. Ex d IIC T4/T5/T6 Gb, Ex tb IIIC T135°C/T100°C/T85°C Db, IP66.
<b>IECEX Ex de Gas:</b>	Cert. no. IECEX BAS 13.0114X. Certified to: IEC60079-0, IEC60079-1, IEC60079-7. Ex de IIC T4/T5/T6 Gb.
<b>IECEX Ex de Gas &amp; Dust:</b>	Cert. no. IECEX BAS 13.0115X. Certified to: IEC60079-0, IEC60079-1, IEC60079-7, IEC60079-31. Ex de IIC T4/T5/T6 Gb, Ex tb IIIC T135°C/T100°C/T85°C Db, IP66.

**Material:** Ex enclosure - Flame retardant, UV stable, Glass reinforced polyester.  
Flare - Flame retardant, high impact, UV stable, thermoplastic polyester.  
(UV stability tested to ISO 4892 part 3).  
Hardware - Bracket, fixings and captive cover screws in 316 stainless steel.

**Fire retardancy:** Body - Glass reinforced polyester. V0 flammability rating.  
Outer Flare - Thermoplastic Polyester. V0 flammability rating.

**Finish:** Body - natural black.  
Flare - natural black, natural red or painted as specified.  
(Black short flare painted black).

**Voltage:** DC: 12 - 48V AC: Up to 254V.

**Weight:** Ex d - 4.6kg, Ex de - 5.4kg. Based on long flare DC unit.

**Ingress Protection:** IP66 & IP67.

**Earth Continuity:** Optional for Ex de version. Not available on Ex d unit.

**Entries:** Up to 2 x M20 or 1/2" NPT. Blanking plug available.

**Terminals:** AC: 7 x 2.5mm<sup>2</sup> (4 for loop in/out power, 3 for tone selection)  
(Standard unit only).  
DC: 8 x 2.5mm<sup>2</sup> (8 for loop in/out power and tone selection)  
(Standard unit only).

**Mounting arrangement:** Stainless steel bracket with ratchet facility, optional swivel bracket available.

**Labels:** Optional duty and tag labels available.

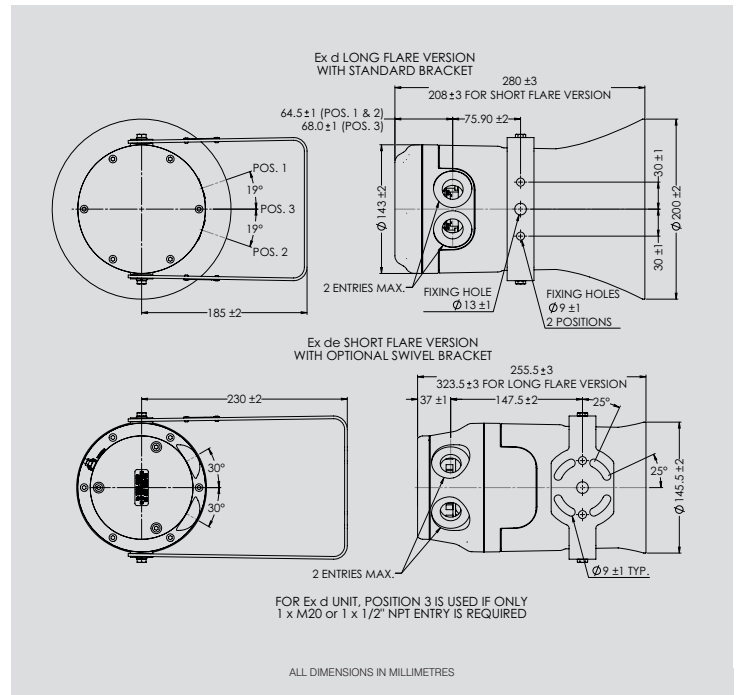
**Tone information:** 28 tones per stage. Additional custom tones available (contact MEDC).

## Maximum output dB @ 1400Hz:

Flare type	Short	Long
IIC Gas	122dB	125dB
IIIC Gas & Dust	116dB	119dB

## Certified Temperature:

Protection Type	Minimum Temp	Maximum Temp
Ex d	-55°C	+70°C
Ex de	-50°C	



## Tone activation and selection:

Voltage	Unit	Number of stages	Stage activation	Tone selection
DC	Standard	1	Apply power.	1 x DIP switch.
			Apply power / Reverse polarity.	2 x DIP switches.
		2	Common negative and switch between 2 positives.	2 x DIP switches.
			Common positive and switch between 2 negatives.	2 x DIP switches.
		3	Common negative and switch between 3 positives.	3 x DIP switches.
			Common positive and switch between 3 negatives.	3 x DIP switches.
AC	Volt free activation (remote).	1 - 5	Volt free activation (remote switching).	1 x DIP switch for stage 1. Tones preselected for subsequent stages.
		Standard	Apply power.	1 x DIP switch
		1 - 2	Volt free activation (remote switching).	1 x DIP switch for stage 1. Tones preselected for subsequent stage.

## Current Consumption: Based on a continuous 970Hz tone.

Voltage	Current for IIC unit	Current for IIIC unit
12Vdc	700mA	716mA
24Vdc	329mA	339mA
48Vdc	171mA	173mA
110Vac	115mA	122mA
120Vac	106mA	113mA
220Vac	59mA	63mA
230Vac	52mA	55mA
240Vac	55mA	58mA
254Vac	59mA	63mA

# Ordering Requirements

The following code is designed to help in selection of the correct unit. Build up the reference number by inserting the code for each component into the appropriate box.

Model	Certification	Ex Atmosphere	Voltage	Labels	Entries	Options	Finish
DB3B							
<b>Certification Code</b>	ATEX Ex d D ATEX Ex de E IECEX Ex d DJ IECEX Ex de EJ Weatherproof W	<b>Ex Atmosphere Code</b> None N* IIC Gas G IIIC Gas & Dust GD	<b>Voltage Code</b> 12-48V d.c. 048 110V a.c. 110 120V a.c. 120 220V a.c. 220 230V a.c. 230 240V a.c. 240 254V a.c. 254	<b>Labels Code</b> None N Duty D Tag T	<b>Entries Code</b> 1 x M20 1B* 2 x M20 2B 2 x M20 2BP Inc 1 x plug 1 x 1/2" NPT 1C* 2 x 1/2" NPT 2C* 2 x 1/2" NPT 2CP* Inc 1 x plug	<b>Options Code</b> None N Swivel bracket B EOL E* Volt free activation (remote) R Short flare S Custom tones (not std 28) T† Earth cont. G†	<b>Finish Code</b> Natural Black N† Natural Red R Yellow Y Grey G Blue B Special S*
		* If Weatherproof select N for Ex Atmosphere			* Not available Ex e.	* Specify value (Min 470Ω). † Ex e only. ‡ Specify details	* Please specify. † Short flare painted black.