

## Ex d(e), Weatherproof



### Features

- Ex d / Ex de IIC/IIIC T4/T5/T6.
- ATEX certified.
- IECEx certified.
- CUTR Certified.
- CQST 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

### 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 a worthy addition to the range offering a high SPL in a compact unit.

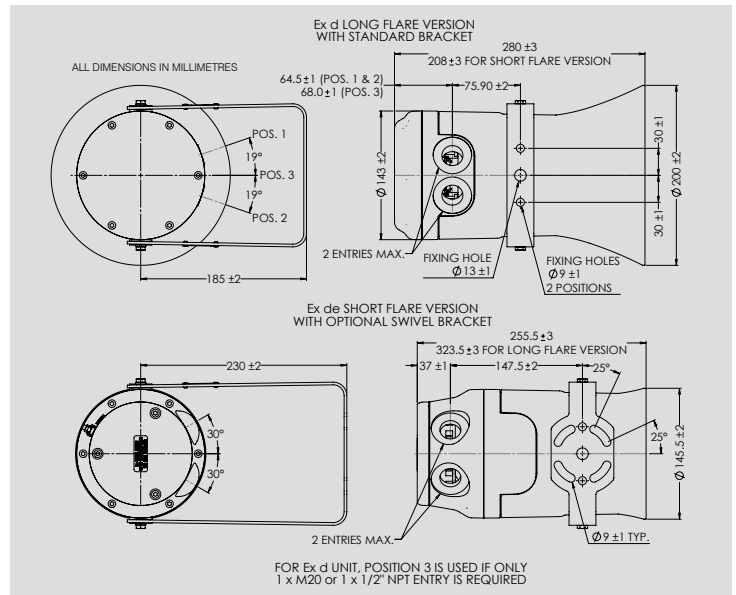


# Certification and Specification

<b>ATEX Ex d Gas:</b>	Cert. no. Baseefa13ATEX0229X. Certified to: EN60079-0, EN60079-1. Ex II 2G, 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 2GD, 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 2G, 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 2GD, 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.
<b>CUTR Ex d Gas:</b>	1Ex d IIC T4/T5/T6 Gb, Ex tb IIIC T135 C/T100 C/T85 C Db.
<b>CUTR Ex d Gas &amp; Dust:</b>	1Ex d IIC T4/T5/T6 Gb, Ex tb IIIC T135 C/T100 C/T85 C Db.
<b>CUTR Ex de Gas:</b>	1Ex de IIC T4/T5/T6 Gb.
<b>CUTR Ex de Gas &amp; Dust:</b>	1Ex de IIC T4/T5/T6 Gb, Ex tb IIIC T135 C/T100 C/T85 C Db.
<b>CQST Ex d Gas:</b>	Ex d IIC T4/T5/T6 Gb.
<b>CQST Ex d Gas &amp; Dust:</b>	Ex d IIC T4/T5/T6 Gb, Ex tb IIIC T135 C/T100 C/T85 C Db.

<b>Material:</b>	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.
<b>Fire retardancy:</b>	Body - Glass reinforced polyester. V0 flammability rating. Outer Flare - Thermoplastic Polyester. V0 flammability rating.
<b>Finish:</b>	Body - natural black. Flare - natural black, natural red or painted as specified. (Black short flare painted black).
<b>Voltage:</b>	DC: 12 - 48V AC: Up to 254V. If using an EOL resistor with a value between 700Ω and 2KΩ the maximum voltage must be limited to 28.8Vdc, if using an EOL resistor with a value between 470Ω and 700Ω the maximum voltage should be limited to 26Vdc.
<b>Weight:</b>	Ex d - 4.6kg, Ex de - 5.4kg. Based on long flare DC unit.
<b>Ingress Protection:</b>	IP66 & IP67.
<b>Earth Continuity:</b>	Optional for Ex de version. Not available on Ex d unit.
<b>Entries:</b>	Up to 2 x M20 or 1/2" NPT. Blanking plug available.
<b>Terminals:</b>	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).
<b>Mounting arrangement:</b>	Stainless steel bracket with ratchet facility, optional swivel bracket available.
<b>Labels:</b>	Optional duty and tag labels available.
<b>Tone information:</b>	28 tones per stage. Additional custom tones available (Contact MEDC) Suitable for use with 200Hz tones.

<b>Maximum output dB @ 1400Hz:</b>		
<b>Flare type</b>	<b>Short</b>	<b>Long</b>
<b>IIC Gas</b>	122dB	125dB
<b>IIIC Gas &amp; Dust</b>	116dB	119dB
<b>Certified Temperature:</b>		
<b>Protection Type</b>	<b>Minimum Temp</b>	<b>Maximum Temp</b>
<b>Ex d</b>	-55°C	+70°C
<b>Ex de</b>	-50°C	



## Tone activation and selection

Voltage	Unit	No. of stages	Tone activation	Tone selection
DC	Standard.	1	Apply power.	1 x DIP switch.
		2	Reverse polarity.	2 x DIP switches.
			Common -ve with 2 +ve supplies.	2 x DIP switches.
			*Common +ve with 2 -ve supplies.	2 x DIP switches.
		3	Common -ve with 3 +ve supplies.	3 x DIP switches.
		Alternative tone activation. (Option M)	2	*Common -ve with 2 +ve supplies.
3	Common +ve with 3 -ve supplies.		3 x DIP switches.	
Volt free activation (remote). (Option R).	1 - 5		Volt free activation (remote switching).	1 x DIP switch for stage 1. Tones preselected for subsequent stages.
AC	Standard.	1	Apply power.	1 x DIP switch
	Volt free activation (remote). (Option R).	1 - 2	Volt free activation (remote switching).	1 x DIP switch for stage 1. Tone preselected for the 2nd stage.

\*Reverse polarity line monitoring can be used with common positive or negative switching to give up to 2 operational stages and a 3rd monitoring connection. An EOL resistor can be fitted as shown in the technical manual. All connection details are shown in the technical manual.

## 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>	<b>Ex Atmosphere Code</b>	<b>Voltage Code</b>	<b>Labels Code</b>	<b>Entries Code</b>	<b>Options Code</b>	<b>Finish Code</b>	
ATEX Ex d D	None N*	12-48V d.c. 048	None N	1 x M20 1B*	None N	Natural Black NT	
ATEX Ex de E	IIC Gas G	110V a.c. 110	Duty D*	2 x M20 2B	Swivel bracket B	Natural Red R	
IECEX Ex d DJ	IIIC Gas & Dust GD	120V a.c. 120	Tag T*	2 x M20 2BP	EOL E*	Yellow Y	
IECEX Ex de EJ		220V a.c. 220		Inc 1 x plug	Earth cont. G†	Grey G	
CUTR Ex d DG		230V a.c. 230		1 x 1/2" NPT 1C*	Alternative tone activation M**	Blue B	
CUTR Ex de EG		240V a.c. 240		2 x 1/2" NPT 2C*	Volt free activation (remote) R**	Special S*	
CQST EX d Q		254V a.c. 254		2 x 1/2" NPT 2CP*	Short flare S		
Weatherproof W				Inc 1 x plug	Custom tones (not std 28) T‡		

\* If Weatherproof select N for Ex Atmosphere

\* Please specify.

\* Not available Ex e.

\* Specify value (Min 470Ω).

\*\* These options cannot be selected together  
Please note voltage limitation.

† Ex e only. ‡ Specify details

All specifications, dimensions, weights and tolerances are nominal (typical) and MEDC reserve the right to vary all data without prior notice. No liability is accepted for any consequence of use.

