

# DB3BM sounders range up to 116dB

Ex d, weatherproof



## Overview

The DB3BM is a high power metallic explosion proof sounder. Certified for use in a wide range of temperatures from -60°C to +85°C the Ex enclosure is manufactured in either marine grade alloy or stainless steel with a rugged thermoplastic flare providing a corrosion free and aesthetically pleasing product.

Capable of producing 116 dB @ 1m and with a range of pre-recorded tones, the DB3BM 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 DB3BM proves its versatility by additionally being able to work with a common positive supply and switching the negatives. The tone stages of the DB3BM 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.

## Features

- UKEX / ATEX / IECEx  
Ex db IIC T4/T5/T6 Gb  
Ex tb IIIC T4/T5/T6 Db
- Certified temperature: -60°C to +85°C
- SIL 2 certified
- IP66 & IP67 (terminal only)
- Up to 116 dB output @ 1 m
- Integral volume control
- 28 tones, user selectable
- 3 stage unit remotely switchable
- Tones can be programmed to customer's specification
- DC supply voltage between 12 V and 48 V
- End of line resistor option
- Sounder & beacon combination units available, for further details contact MEDC
- Ex enclosure – marine grade alloy or stainless steel

- Flare - high impact thermoplastic polyester
- Stainless steel mounting bracket and cover screws
- Mounting bracket has ratchet facility as standard
- Swivel bracket standard on Stainless steel unit, optional on Alloy units



Stainless steel  
body, short flare  
version



Certifications	
ATEX Ex db	Cert. no. UL 21 ATEX02559X. Certified to: EN IEC 60079-0, EN 60079-1, 31 Ex II 2GD, Ex db IIC T3/T4/T5/T6 Gb, Ex tb IIIC T200°C/T135°C/T100°C/T85°C Db, IP66 (IP65 short flare)
IECEx Ex db	Cert. no. IECEx ULD 21.0017X. Certified to: IEC60079-0, 1, 31 Ex db IIC T3/T4/T5/T6 Gb, Ex tb IIIC T200°C/T135°C/T100°C/T85°C Db, IP66 (IP65 short flare)
UKEX Ex db	Cert. no. UL21UKEX2209X. Certified to: EN IEC 60079-0, EN 60079-1, 31 Ex II 2GD, Ex db IIC T3/T4/T5/T6 Gb, Ex tb IIIC T200°C/T135°C/T100°C/T85°C Db, IP66 (IP65 short flare)
Safe Area	EN 61010-1, EN 60529, EN61000-6
SIL	SIL2 certified to IEC61508. Cert number FSP 22008

Specifications	
Material	Ex enclosure – marine grade alloy or stainless steel 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	Outer flare – thermoplastic polyester. V0 flammability rating
Finish	Body – alloy: painted black. Stainless steel: painted black. Flare – natural black, natural red or painted as specified
Voltage	DC: 12 - 48 V. AC: Up to 254 V. if using EOL resistor/s the maximum power dissipation must be limited to 3 W.
Weight	Alloy - 4.4 kg, stainless steel 8.35 kg based on long flare DC unit
Ingress protection	IP66 & IP67 (terminal only). IP65 short flare
Entries	Up to 2 x M20 or M25 or ½" or ¾" NPT. Blanking plug available
Terminals	AC: 4 x 1.5mm <sup>2</sup> (loop in / out power), 3 x 2.5mm <sup>2</sup> (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. Swivel standard on stainless steel unit
Labels	Optional duty and tag labels available
Tone information	28 tones per stage. Additional custom tones available (contact MEDC) Suitable for use with 200 Hz tones
Relative Humidity	99% Non-condensing

Tone activation and selection				
Voltage	Unit	No. of stages	Tone activation	Tone selection
DC	Standard	1	Apply power	1 x DIP switch
			Reverse polarity	2 x DIP switches
		2	Common -ve with 2 +ve supplies	2 x DIP switches
			*Common +ve with 2 -ve supplies	2 x DIP switches
	Alternative tone activation (Option M)	3	Common -ve with 3 +ve supplies	3 x DIP switches
		2	*Common -ve with 2 +ve supplies	2 x DIP switches
		3	Common +ve with 3 -ve supplies	3 x DIP switches
AC	Alternative tone activation (remote) (Option R)	1-5	Volt free activation (remote switching)	1 x DIP switch for stage 1. Tone pre-selected for subsequent stages
	Standard	1	Apply power	1 x DIP switch
	Alternative tone 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 IIC unit
12 Vdc	700 mA	716 mA
24 Vdc	329 mA	339 mA
48 Vdc	171 mA	173 mA
110 Vac	115 mA	122 mA
120 Vac	106 mA	113 mA
220 Vac	59 mA	63 mA
230 Vac	52 mA	55 mA
240 Vac	55 mA	58 mA
254 Vac	59 mA	63 mA

Certified temperature	Ex d/UL min	Max
	-60°C	+85°C

Operating temperature at launch (DC Only): -40 °C min +85 °C max

**-55 °C as standard to follow. Please contact MEDC for low temperature options**

Max output (dB) 1400Hz @ 1m	Short Flare	Long Flare
	113 dB	116 dB

For Labels and Entries select any option as required. For Options select either (N) None or (E) EOL as required  
Tolerance +/-3dB. Please see the technical manual for tone specific SPL values

## 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	Material	Ex Certification	Voltage	Labels	Entries	Options	Finish							
DB3BM														
	<b>Finish</b> Alloy Stainless Steel	<b>Code</b> A S	<b>Ex Certification</b> UKEX/ATEX Ex d IECEx Ex d Weatherproof	<b>Code</b> D J W	<b>Voltage</b> 12-48 Vdc 110 Vac 120 Vac 220 Vac 230 Vac 240 Vac 254 Vac	<b>Code</b> 048# 110 120* 220 230 240* 254	<b>Labels</b> None Duty Tag	<b>Code</b> N D* T*	<b>Entries</b> 1 x M20 2 x M20 2 x M20 inc 1 x plug 1 x ½" NPT 2 x ½" NPT 2 x ½" NPT inc 1 x plug 1 x M25 2 x M25 2 x M25 inc 1x plug 1 x ¾" NPT 2 x ¾" NPT 2 x ¾" NPT inc 1x plug	<b>Code</b> 1B 2B 2BP 1C 2C 2CP 1D 2D 2D 2DP 1E 2E 2EP	<b>Options</b> None Swivel bracket EOL Alternative tone activation Volt free activation (remote) Short flare Custom tones (not std 27)	<b>Code</b> N B# E* M** R** S Δ	<b>Finish</b> Natural black Natural red Yellow Grey Blue Special	<b>Code</b> N R Y G B S*

\*Please specify

\*Complies with UL regulated power supply requirements

\*Alloy only - stainless steel has swivel as standard

\*Specify value max power dissipation is 3W

\*\*These options cannot be selected together

ΔSpecify details

## General arrangement drawing (all dimensions in mm)

