# DB3B sounders range up to 122dB

**Features** 

ATEX certified

**IECEx** certified

7one 21

TR CU certified

CCC certified

CCOE certified

**INMETRO** certified

SIL 1 certified

approved

3, IP33C)

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Class I, Zone 1

Class III, Div. 1

Ex d / Ex de IIC/IIIC T4/T5/T6

UL certified for USA and Canada

Class I, Div 2, Groups A-D

Class II, Div 2, Groups F & G

Fire alarm and general use

Chinese Compulsory Certification

for Fire systems (CCCF) certified

EN54-3 certified and LPCB

+85°C (model dependent)

Certified temperature: -55°C to

IP66 & IP67/NEMA 4X & 6 (EN54-

## Ex d(e), weatherproof

## Overview

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 +85°C the Ex enclosure is manufactured from GRP with a rugged thermoplastic flare providing a corrosion free and aesthetically pleasing product.

Capable of producing 122dB @ 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.

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

Optional Ex e terminal chamber

- 28 tones, user selectable
- 3 stage unit remotely switchable
- DC supply voltage between 12V and 48V. EN54-3 between 11V and 57.6V absolute
- 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

Short flare version

## Up to 122dB output @ 1m

- Integral volume control

- Tones can be programmed to customer's specification





# **CROUSE-HINDS**

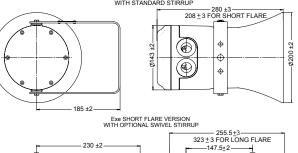
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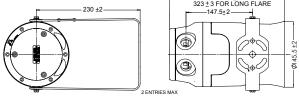
Certifications					
ATEX Ex d Gas	Cert. no. Baseefa13ATEX0229X. Certified to: EN60079-0,1 Ex II 2G, Ex db IICT4/T5/T6 Gb				
ATEX Ex d Gas & Dust	Cert. no. Baseefa13ATEX0231X. Certified to: EN60079-0,1,31 Ex II 2GD, Ex db IIC T4/T5/T6 Gb, Ex tb IIIC T135°C/T100°C/T85°C Db, IP66 (IP65 short flare)				
ATEX Ex de Gas	Cert. no. Baseefa13ATEX0232X. Certified to: EN60079-0,1,7 Ex II 2G, Ex db eb IIC T4/T5/T6 Gb				
ATEX Ex de Gas & Dust	Cert. no. Baseefa13ATEX0233X. Certified to: EN60079-0,1,7,31 Ex II 2GD, Ex db eb IICT4/T5/T6 Gb, Ex tb IIICT135°C/T100°C/T85°C Db, IP66 (IP65 short flare)				
IECEx Ex d Gas	Cert. no. IECEx BAS 13.0112X. Certified to: IEC60079-0,1 Ex db IIC T4/T5/T6 Gb				
IECEx Ex d Gas & Dust	Cert. no. IECEx BAS 13.0113X. Certified to: IEC60079-0,1,31 Ex db IIC T4/T5/T6 Gb, Ex tb IIIC T135°C/T100°C/T85°C Db, IP66 (IP65 short flare)				
IECEx Ex de Gas	Cert. no. IECEx BAS 13.0114X. Certified to: IEC60079-0,1,7 Ex db eb IIC T4/T5/T6 Gb				
IECEx Ex de Gas & Dust	Cert. no. IECEx BAS 13.0115X. Certified to: EN60079-0,1,7,31 Ex db eb IIC T4/T5/T6 Gb, Ex tb IIIC T135°C/T100°C/T85°C Db, IP66 (IP65 short flare)				
UL Haz Locs	UL certified for USA and Canada, fire alarm or general use, listing no. E203310 Class I, Div 2. Groups A-D. Class I, Zone 1, Ex db IIC / AEx db IIC T4/T5/T6 Gb Class II, Div 2. Groups F&G. Zone 21 Ex tb IIIC / AEx tb IIIC T135°C/T100°C/T85°C Db Class III Div 1				
UL Ord Locs TR CU Ex d Gas	UL certified for USA and Canada, fire alarm or general use, listing no. S8116 1Ex d IIC T4/T5/T6 Gb				
TR CU Ex d Gas & Dust	1Ex d IIC T4/T5/T6 Gb, Ex tb IIIC T135°C/T100°C/T85°C Db				
TR CU Ex de Gas	1Ex de IIC T4/T5/T6 Gb				
TR CU Ex de Gas & Dust	1Ex de IIC T4/T5/T6 Gb, Ex tb IIIC T135°C/T100°C/T85°C Db				
Russian Fire Approval	All TR CU certified units are Russian Fire Approved				
CCC Ex d Gas	Ex d IIC T4/T5/T6 Gb				
CCC Ex d Gas & Dust	Ex d IIC T4/T5/T6 Gb, Ex tD A21 IP6X T135°C/T100°C/T85°C				
CCCF	Chinese Compulsory Certification for Fire systems (CCCF) Ex d only				
INMETRO Ex d Gas	Ex db IIC T4/T5/T6 Gb				
INMETRO Ex d Gas and Dust	Ex db IIC T4/T5/T6 Gb, Ex tb IIIC T135°C/T100°C/T85°C Db, IP66 (IP65 short flare)				
INMETRO Ex de Gas	Ex db eb IIC T4/T5/T6 Gb				
INMETRO Ex de Gas and Dust	Ex db eb IIC T4/T5/T6 Gb, Ex tb IIIC T135°C/T100C°/T85C° IP66 (IP65 short flare)				
SIL	SIL 1 certified to IEC61508. Cert number 20151119-4786827453				
EN54-3	Certified to EN54-3, LPCB approved. Ambient Temperature -25°C to +70°C				
Specifications					
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 (EN54-3: 11-57.6V) AC: Up to 254V. If using an EOL resistor with a value between 700 $\Omega$ and 2K $\Omega$ the maximum voltage must be limited to 28.8Vdc, it using an EOL resistor with a value between 470 $\Omega$ and 700 $\Omega$ the maximum voltage must be limited to 26Vdc				
Weight	Ex d/UL - 4.6kg, Ex de - 5.4kg. Based on long flare DC unit				
Ingress protection	IP66 & IP67, NEMA 4X & 6. (IPx7 & NEMA 6 on terminal chamber only) EN54-3 certified product approved to IP33C				
Earth Continuity	Optional for Ex de version. Not available on Ex d unit				
	Up to 2 x M20 or 1/2" NPT. Blanking plug available				
	AC: 4 x 1.5mm <sup>2</sup> (loop in/out power), 3 x 2.5mm <sup>2</sup> (tone selection) (standard unit only)				
Entries Terminals					
Terminals	DC: 8 x 2.5mm <sup>2</sup> (8 for loop in/ out power and tone selection) (standard unit only)				
Terminals Mounting arrangement	DC: 8 x 2.5mm <sup>2</sup> (8 for loop in/ out power and tone selection) (standard unit only) Stainless steel bracket with ratchet facility, optional swivel bracket available				
Terminals	DC: 8 x 2.5mm <sup>2</sup> (8 for loop in/ out power and tone selection) (standard unit only)				

Ordering requirements

### General arrangement drawing (all dimensions in mm)

### Exd LONG FLARE VERSION WITH STANDARD STIRRUP





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

Restrictions apply to permissible connections for EN54-3 certified product. See technical manual for details

\*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 97	70Hz tone

current consumption: Based on a continuous 970Hz tone						
Voltage	Current for	IC unit C	urrent for III	C unit		
12Vdc	700m/	Δ	716mA			
24Vdc	329m/	mA 339mA				
48Vdc	171m/	171mA 173mA				
110Vac	115m/	4	122mA			
120Vac	106m/	4	113mA			
220Vac	59mA	\	63mA			
230Vac	52mA	\	55mA			
240Vac	55mA	55mA 58mA				
254Vac	59mA	59mA 63mA				
Certified	Ex d/UL min	Ex de m	in	Max		
temperature	55°C	5000	170	001.0500		

+70°C/+85°C\* temperature -50°C -55°C Operating temperature for DC units -40°C **Contact MEDC for DC low temperature** options. \* Higher maximum temperatures not on TRCU certified units

Max output (dB) 1400Hz @ 1m Short GD Long GD Short G Long G

113dB 116dB 119dB 122dB For CCC/CCCF certified units use the following code DB3BQFG048 \_ \_ R. For Labels and Entries select any option as required. For Options select either (N) None or (E) EOL as required

Tolerance +/-3dB. EN54-3; see technical manual (TM264) for SPL Please see the technical manual for tone specific SPL values

### 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 Certification ATEX Exd ATEX Exd EN54-3 ATEX Ex de IECEx Ex d IECEx Ex d III Code N† R Y G B S\* Ex atmosphere None IIC Gas IIC & IIIC gas and Code N\* G Voltage 12-48Vdc 110Vac 120Vac Code N D\* T\* Entries 1 × M20 2 × M20 2 × M20 Code 1B\* 2B Code Code Labels Options None Code N‡ Finish Natural black 048‡ 110 120\* D None 54D Swivel bracket B E\* G† Duty Natural red E DJ EJ Taq Yellow 2BF GD‡ 2 x M20 inc 1 x plug 1 x ½"NPT 2 x ½" NPT 2 x ½" NPT inc 1 x plug dust 220Vac 220 Earth cont Grey Blue Earth cont Alternative tone activation Volt free activation (remote) Short flare Please specify 230Vac 230 1C\* 2C\* M\* If weatherproof or UL UL 240Vac 240 Special UL (ordinary locations) UW (ordinary locations), select N for Ex Atmosphere 254Vac 254† 2CP\* R\*\* \*Please specify Dual ATEX/UL AU Dual ATEX/UL Dual IECEX/UL TR CU Ex d TR CU Ex de CCC Ex d CCC/CCCF Ex d INMETRO Ex d INMETRO Ex de Weatherproof ‡EN54 must be IIC & IIIC gas and dust \*Complies with UL regulated power supply requirements JU DG EG Q† S †Short flare painted black Custom tones (not \*Not available in Ex e TΔ std 28) †Not available in UL ‡For EN54 select 12-48Vdc. Actual rating 11-57.6Vdc Specify value (min 470Ω) please note voltage limit 47/02) please note voltage limitation \*\*These options cannot be selected together fEx e only ASpecify details #EN54 only available with no extra options selected DM ΕM Weatherproof Weatherproof EN54-3 Ŵ 54W †Not suitable for use in China on fire alarm system

### DSMC0033/F 03/22