CROUSE-HINDS

DB3B sounders range up to 122dB

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.

Features

- Ex d / Ex de IIC/IIIC T4/T5/T6
- ATEX certified
- IECEx certified
- UL certified for USA and Canada Class I, Div 2, Groups A-D Class I, Zone 1 Class II, Div 2, Groups F & G 7one 21 Class III, Div. 1 Fire alarm and general use
- TR CU certified
- CCC certified
- CCOE certified
- Chinese Compulsory Certification for Fire systems (CCCF) certified
- INMETRO certified
- SIL 1 certified
- EN54-3 certified and LPCB approved
- Certified temperature: -55°C to +85°C (model dependent)
- IP66 & IP67/NEMA 4X & 6 (EN54-3, IP33C)

- Optional Ex e terminal chamber
- Up to 122dB 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. 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















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Certifications	
ATEX Ex d Gas	Cert. no. Baseefa13ATEX0229X. Certified to: EN60079-0,1 Ex II 2G, Ex db IIC T4/T5/T6 Gb
ATEX Ex d Gas & Dust	Cert. no. Baseefa13ATEX0231X. Certified to: EN60079-0,1,31 Ex II 2GD, Ex db IICT4/T5/T6 Gb, Ex tb IIICT135°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 IICT4/T5/T6 Gb
ATEX Ex de Gas & Dust	Cert. no. Baseefa13ATEX0233X. Certified to: EN60079-0,1,7,31 Ex II 2GD, Ex db eb IIC T4/T5/T6 Gb, Ex tb IIIC T135°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 IICT4/T5/T6 Gb, Ex tb IIICT135°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	UL certified for USA and Canada, fire alarm or general use, listing no. S8116
TR CU Ex d Gas	1Ex d IIC T4/T5/T6 Gb
TR CU Ex d Gas & Dust TR CU Ex de Gas	1Ex d IIC T4/T5/T6 Gb, Ex tb IIIC T135°C/T100°C/T85°C Db 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 el 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	Continue to Error of Er ob approved. Ambient fortiperatare 20 o to 170 o
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 Ω and 2K Ω the maximum voltage must be limited to 28.8Vdc, if using an EOL resistor with a value between 470 Ω and 700 Ω 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
Entries	Up to 2 x M20 or 1/2" NPT. Blanking plug available
Terminals	AC: 4 x 1.5mm² (loop in/out power), 3 x 2.5mm² (tone selection) (standard unit only) DC: 8 x 2.5mm² (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)
Deletine Humiditu	Suitable for use with 200Hz tones

Relative Humidity

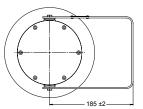
Ordering requirements

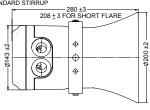
†Not suitable for use in China on fire alarm system

99% Non-condensing

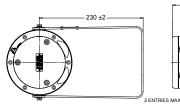
General arrangement drawing (all dimensions in mm)

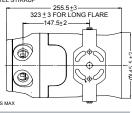
Exd LONG FLARE VERSION WITH STANDARD STIRRUP





Exe SHORT FLARE VERSION WITH OPTIONAL SWIVEL 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	Z X DII SWILCHES	
	Standard		*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	
	Alternative tone	1-5		1 x DIP switch	
			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	
	Alternative tone	1-2		1 x DIP switch	
			Volt free activation	for stage 1. Tone	
	activation (remote) (Option R)		(remote switching)	preselected for the	
	ΙΟμιίοπ η/			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 970Hz tone

Voltage	Current for I	Current for IIC unit Current for IIIC u			
12Vdc	700mA	4	716mA		
24Vdc	329mA	329mA 3			
48Vdc	171m/	171mA		173mA	
110Vac	115mA	115mA 122mA			
120Vac	106mA	106mA 113mA		3mA	
220Vac	59mA	59mA		3mA	
230Vac	52mA		55mA		
240Vac	55mA	55mA 58mA		3mA	
254Vac	59mA	59mA 63mA		3mA	
	Ev d/III min	Ev da	i	Max	

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

-F Trigitor maximum temperatures not on mod certifica aritis						
Max outp	out (dB)	Short GD	Long GD	Short G	Long G	_
1400Hz	@Ìm´	1124B	116dB	110dB	1224D	_

 1400Hz @ im
 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 de Ex atmosphere None IIC Gas IIC & IIIC gas and dust Code N† R Y G B S* Code N* G Voltage 12-48Vdc 110Vac 120Vac Code N D* T* Entries 1 x M20 2 x M20 2 x M20 Code 1B* 2B Code Finish Natural black 048‡ 110 120* 54D E DJ EJ Swivel bracket B E* G† Duty Natural red Tag 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 220Vac 220 Earth cont Grey Blue Alternative tone activation Volt free activation (remote) Short flare *Please specify 230Vac 230 1C* 2C* M* If weatherproof or UL 240Vac UL (ordinary locations) UW (ordinary locations), select N for Ex Atmosphere 254Vac 2CP* R** *Please specify Dual ATEX/UL ΑU 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† QF S †Short flare painted Custom tones (not *Not available in Ex e ΤΔ std 28) †Not available in UL ‡For EN54 select 12-48Vdc. Actual rating 11-57.6Vdc Specify value (min 470Ω) specify value (min 4701) please note voltage limitation **These options cannot be selected together †Ex e only ASpecify details ‡EN54 only available with no extra options selected ΕM Weatherproof Weatherproof EN54-3