

DB3B range-up to 112dB

Hazardous & ordinary locations



Overview

The DB3B is a high power explosion proof horn, introduced as a replacement for the current DB3 with improved functionality and performance. Certified for use in a wide range of temperatures from -67°F to +185°F the Ex enclosure is manufactured from GRP with a rugged thermoplastic flare providing a corrosion free and aesthetically pleasing product. Capable of producing 112dB @ 10 feet and with a range of pre-recorded tones, the DB3B includes an integral volume control which is ideal when a lower output is required.

Features

- UL certified for USA and Canada
 - Class I, Div 2, Groups A-D
 - Class I, Zone 1
 - Class II, Div 2, Groups F & G
 - Zone 21
 - Class III, Div. 1
 - Fire alarm and general use
- Certified temperature -55°C to +85°C (-67°F to + 185°F)
- SIL 2 certified
- NEMA 4X & 6/IP66 & IP67
- Up to 112dB output @ 10 feet
- 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
- Horn and strobe 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

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.



Certifications

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
SIL	SIL2 certified to IEC61508. Cert number FSP 22008

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 AC: Up to 240V. 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
Weight	10lbs/4.6kg, based on long flare DC unit
Ingress protection	NEMA 4X & 6. IP66 & IP67 (NEMA 6 and IPx7 on terminal chamber only)
Entries	Up to 2 x 1/2" NPT or M20. Blanking plug available
Terminals	AC: 7 x 12AWG (4 for loop in/out power, 3 for tone selection) (standard unit only) DC: 8 x 12AWG (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) Suitable for use with 200Hz tones
Certified temperature	-55°C to +85°C T4/T135°C -55°C to +55°C T5/T100°C -55°C to +40°C T6/T85°C

Tone activation and selection

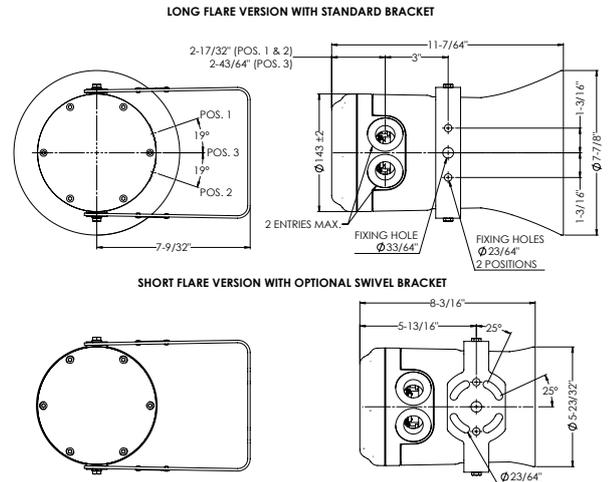
Voltage	Unit	No. of stages	Tone activation	Tone selection
DC	Standard	1	Apply power	1 x DIP switch
		2	Reverse polarity	2 x DIP switches
			Common -ve with 2 +ve supplies	2 x DIP switches
			*Common +ve with 2 -ve supplies	2 x DIP switches
			Independent control 2 -ve & 2 +ve	2 x DIP switches
	3	Common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

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

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General arrangement drawing (all dimensions in inches)



ENTRY POSITION 3 IS USED IF ONLY 1 x 1/2" NPT ENTRY IS REQUIRED
ALL DIMENSIONS ARE COMMON TO ALL UNIT VARIATIONS UNLESS OTHERWISE STATED

Current consumption: Average consumption, based on a continuous 970Hz tone

Voltage	Current for IIC unit	Current for IIC 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

Max output (dB) 1400Hz @ 10 feet	Short GD	Long GD	Short G	Long G
	103dB	106dB	109dB	112dB

Tolerance +/- 3dB

*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.