

Loudspeakers for Hazardous & Ordinary Locations



Introduction

The DB4B is a high power explosion proof loudspeaker, introduced as a replacement for the current DB4 with improved intelligibility and acoustic performance. Certified for use in a wide range of temperatures from -67°F to +158°F the Ex enclosure is manufactured from GRP with a rugged thermoplastic flare providing a corrosion free and aesthetically pleasing product.

The frequency response of the unit ensures that critical voice messages and general alarm tones are highly intelligible. The specific SPL figure for sensitivity, 1W @ 10 feet is 103dB whilst at 10 feet the 25W unit produces 117dB, the 15W unit 115dB and the 8W unit 113dB.

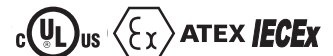
Options include DC blocking capacitors for monitored systems, resettable fuses for compliance with marine regulations and a swivel bracket that gives the installer greater flexibility when positioning the unit. The short flare option is a worthy addition to the range offering a high SPL and wide dispersion angle in a compact unit.

Features

- UL listed for US and Canada
 - Class I, Div 2, Groups A-D
 - Class I, Zone 1
 - Class II, Div 2, Groups F & G
 - Zone 21, AEx tb IIIC
 - Class III, Div. 1
- Certified temperature -67°F to +158°F.
- NEMA 4X & 6/IP66 & IP67.
- 117dB at 25W, 10 feet.*
- 8W, 15W & 25W versions.
- Power tapings, via integral transformer.
- Frequency response 350Hz - 8kHz.
- Exteri 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.
- Optional resettable fuse†.

*Depending on version.

† Contact MEDC for details.



EATON

Powering Business Worldwide

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.

Certification and Specification

UL Haz Locs:	UL Listed for USA and Canada, listing no. E203310. Class I, Div 2. Groups A-D. Class I, Zone 1, Ex d IIC / AEx d IIC Gb Class II, Div 2. Groups F&G. Zone 21 AEx tb IIIC. Class III Div 1.
UL Ord Locs:	UL Listed for USA and Canada, listing no. S8847.
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).
Rated Power:	8W, 15W or 25W (other ratings available, contact Eaton).
Frequency Range:	Frequency response 350Hz to 8kHz. 8W and 15W units are available for use @ 200Hz.
Weight:	11lbs/5.0kg, Based on long flare with transformer.
Ingress Protection:	NEMA 4X & 6, IP66 & IP67. (IPx7 & NEMA 6 on terminal chamber only)
Entries:	Up to 2 x 1/2" NPT or M20. Blanking plug available.
Terminals:	8 x 12AWG.
Mounting arrangement:	Stainless steel bracket with ratchet facility, optional swivel bracket available.
Labels:	Optional duty and tag labels available.
Dispersion angle:	Long flare (short in brackets), -6dB, 1kHz = 140° (240°), 4kHz = 40° (50°)
Driver Impedance:	8Ω.
SPL 1W/10 feet (Sensitivity):	103dB (IIC long flare).

Maximum Output dB (1/3 octave average smoothed @ 10 feet:

Flare type	8W unit		15W unit		25W unit	
	Short	Long	Short	Long	Short	Long
IIC Gas	109dB	113dB	112dB	115dB	114dB	117dB
IIIC Gas & Dust	104dB	107dB	107dB	109dB	109dB	111dB

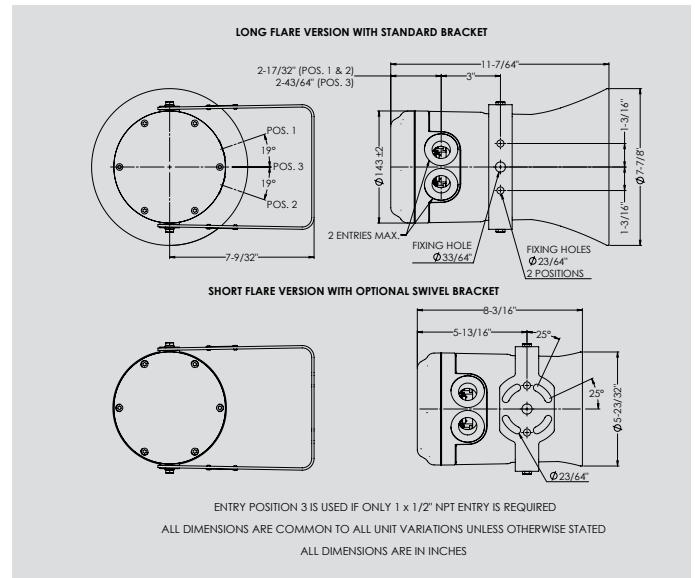
Transformer: Used by combining the rated power tapings below.

Transformer Tapping Options:

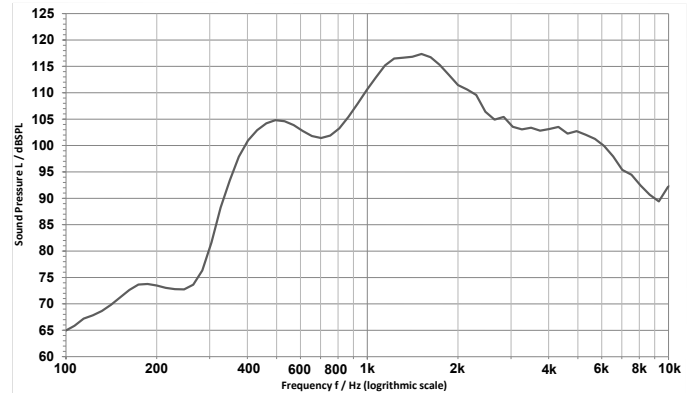
Tappings	8W	15W	25W
1:2	8.0	15.0	25.0
2:3	4.0	7.5	12.5
3:4	2.0	5.0	6.0
1:3	1.5	4.0	4.0
2:4	0.7	2.0	2.0
1:4	0.4	0.8	1.0

i) Loop in/loop out (4 x 2) power tap change; 8 terminals.

ii) Loop in/loop out (2 x 2) 8 ohm; 4 terminals.



Frequency Response for IIC long flare unit @ 25W, 10 feet with octave averaging. Test data from NTI test equipment.



Certified Temperature:

Protection Type	Minimum Temp	Maximum Temp		
		8W unit	15W unit	25W unit
UL	-67°F	+158°F	+149°F	+131°F

Ordering Requirements

The following is designed to help in selection of the correct unit. Build the reference number by inserting the code for each component into the appropriate box.

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