

DB4B loudspeaker range up to 25 watts

Hazardous & ordinary locations



Overview

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 +185°F the Ex enclosure is manufactured from GRP with a rugged thermoplastic flare providing a corrosion free and aesthetically pleasing product.

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
 - Certified temperature -55°C to +85°C (-67°F to + 185°F)*
 - NEMA 4X & 6/IP66 & IP67
 - 114dB at 25W, 10 feet*
 - 8W, 15W & 25W versions
 - Power tapping, via integral transformer
 - Frequency response 350Hz - 8kHz
 - 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
 - Optional resettable fuse†
- * Depending on version
† Contact MEDC for details

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 100dB whilst at 10 feet the 25W unit produces 114dB, the 15W unit 112dB and the 8W unit 110dB.

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.



Certifications

UL Haz Locs UL certified for USA and Canada, listing no. E203310
Class I, Div 2. Groups A-D. Class I, Zone 1, Ex db IIC / AEx db IIC T3/T4/T5/T6 Gb
Class II, Div 2. Groups F&G. Zone 21 Ex tb IIIC / AEx tb IIIC T200°C/T135°C/T100°C/T85°C
Db
Class III Div 1

UL Ord Locs UL certified for USA and Canada, listing no. S8847

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)
Rated power	8W, 15W or 25W
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)	100dB (IIC long flare)

Sound pressure level at 10' (dB):

Values in dB @ 10 feet (Unsmoothed, peak values)	8W		15W		25W	
	Short	Long	Short	Long	Short	Long
IIC Gas	106	110	109	112	111	114
IIC Gas and Dust	101	104	104	106	106	108

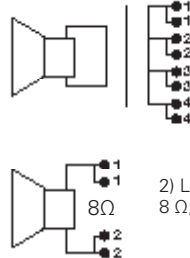
Tolerance +/- 3dB

Certified temperature:

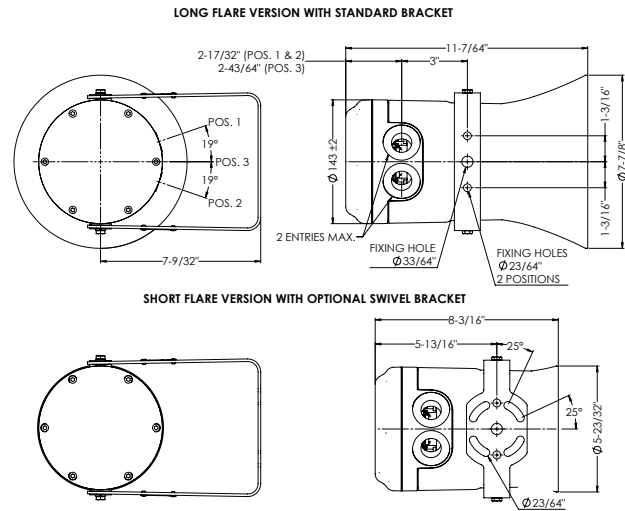
Power	Minimum Temperature	Maximum Temperature
25 Watt	-55°C	+70°C T4/T135°C, +40°C T5/T100°C
15 Watt	-55°C	+85°C T3/T200°C, +70°C T4/T135°C, +40°C T5/T100°C
8 Watt	-55°C	+85°C T4/T135°C, +55°C T5/T100°C, +40°C T6/T85°C

Transformer: Used by combining the rated power tapings below

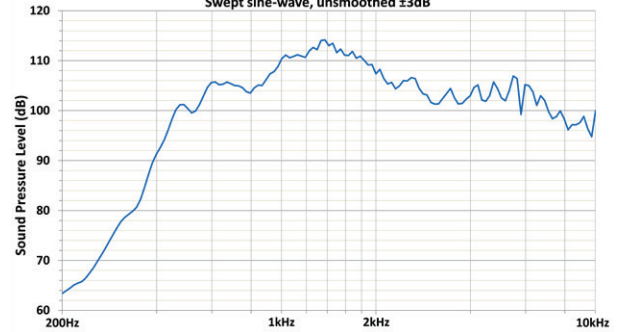
Tappings	Power		
	8W	15W	25W
1:2	8.0	15.0	25.0
2:3	4.0	7.5	12.5
3:4	2.0	5.0	6.0
1:3	1.5	4.0	4.0
2:4	0.7	2.0	2.0
1:4	0.4	0.8	1.0



General arrangement drawing (all dimensions in inches)



DB4B IIC Long Flare, 25W, 10ft SPL vs Frequency
Swept sine-wave, unsmoothed ±3dB



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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