

Ex d(e), Weatherproof



Features

- Ex d / Ex de IIC/IIIC T4/T5/T6.
- ATEX certified.
- IECEx certified.
- CUTR Certified.
- CQST Certified.
- Certified temperature -55°C to +70°C.*
- IP66 & IP67.
- Optional Ex e terminal chamber.
- 127dB at 25W, 1m.*
- 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.

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 -55°C to +70°C 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 is 1W @ 1m is 113dB whilst at 1m the 25W unit produces 127dB, the 15W unit 125dB and the 8W unit 123dB.

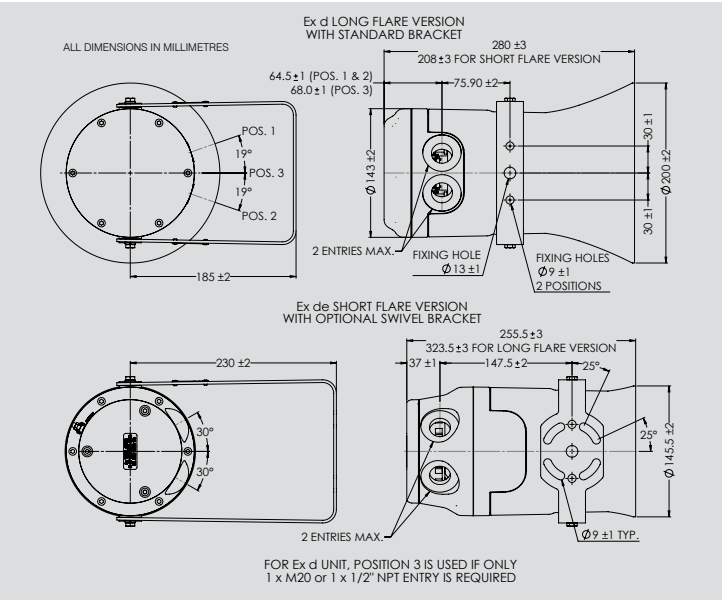
Options include DC blocking capacitors for monitored systems, resettable fuses for compliance with marine regulations and a swivel bracket that gives the installer greater flexibility when positioning the unit. The short flare option is a worthy addition to the range offering a high SPL and wide dispersion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



Certification and Specification

ATEX Ex d Gas:	Cert. no. Baseefa13ATEX0229X. Certified to: EN60079-0, EN60079-1. Ex II 2G, Ex d IIC T4/T5/T6 Gb.
ATEX Ex d Gas & Dust:	Cert. no. Baseefa13ATEX0231X. Certified to: EN60079-0, EN60079-1, EN60079-31. Ex II 2GD, Ex d IIC T4/T5/T6 Gb, Ex tb IIIC T135°C/T100°C/T85°C Db, IP66.
ATEX Ex de Gas:	Cert. no. Baseefa13ATEX0232X. Certified to: EN60079-0, EN60079-1, EN60079-7. Ex II 2G, Ex de IIC T4/T5/T6 Gb.
ATEX Ex de Gas & Dust:	Cert. no. Baseefa13ATEX0233X. Certified to: EN60079-0, EN60079-1, EN60079-7, EN60079-31. Ex II 2GD, Ex de IIC T4/T5/T6 Gb, Ex tb IIIC T135°C/T100°C/T85°C Db, IP66.
IECEx Ex d Gas:	Cert. no. IECEx BAS 13.0112X. Certified to: IEC60079-0, IEC60079-1. Ex d IIC T4/T5/T6 Gb.
IECEx Ex d Gas & Dust:	Cert. no. IECEx BAS 13.0113X. Certified to: IEC60079-0, IEC60079-1, IEC60079-31. Ex d IIC T4/T5/T6 Gb, Ex tb IIIC T135°C/T100°C/T85°C Db, IP66.
IECEx Ex de Gas:	Cert. no. IECEx BAS 13.0114X. Certified to: IEC60079-0, IEC60079-1, IEC60079-7. Ex de IIC T4/T5/T6 Gb.
IECEx Ex de Gas & Dust:	Cert. no. IECEx BAS 13.0115X. Certified to: IEC60079-0, IEC60079-1, IEC60079-7, IEC60079-31. Ex de IIC T4/T5/T6 Gb, Ex tb IIIC T135°C/T100°C/T85°C Db, IP66.
CUTR Ex d Gas:	1Ex d IIC T4/T5/T6 Gb.
CUTR Ex d Gas & Dust:	1Ex d IIC T4/T5/T6 Gb, Ex tb IIIC T135°C/T100°C/T85°C Db.
CUTR Ex de Gas:	1Ex de IIC T4/T5/T6 Gb.
CUTR Ex de Gas & Dust:	1Ex de IIC T4/T5/T6 Gb, Ex tb IIIC T135°C/T100°C/T85°C Db.
CQST Ex d Gas:	Ex d IIC T4/T5/T6 Gb.
CQST Ex d Gas & Dust:	Ex d IIC T4/T5/T6 Gb, Ex tb IIIC T135°C/T100°C/T85°C Db.
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 MEDC).
Frequency Range:	Frequency response 350Hz to 8kHz. 8W and 15W units are available for use @ 200Hz.
Weight:	Ex d - 5.0kg, Ex de - 5.8kg. Based on long flare with transformer.
Ingress Protection:	IP66 & IP67.
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:	Ex d - 8 x 2.5mm ² . Ex de - 8 x 4.0mm ² .
Mounting arrangement:	Stainless steel bracket with ratchet facility, optional swivel bracket available.
Labels:	Optional duty and tag labels available.
Dispersion angle:	Long flare (-6dB) 1kHz = 140°, 4kHz = 40°. Short flare (-6dB) 1kHz = 240°, 4kHz = 50°.
Driver Impedance:	8Ω.
SPL 1W/1m (Sensitivity):	113dB (IIC long flare).

Maximum Output dB (1/3 octave average smoothed):						
	8W unit		15W unit		25W unit	
Flare type	Short	Long	Short	Long	Short	Long
IIC Gas	119dB	123dB	122dB	125dB	124dB	127dB
IIIC Gas & Dust	114dB	117dB	117dB	119dB	119dB	121dB



Transformer:
Used by combining the rated power tappings below.

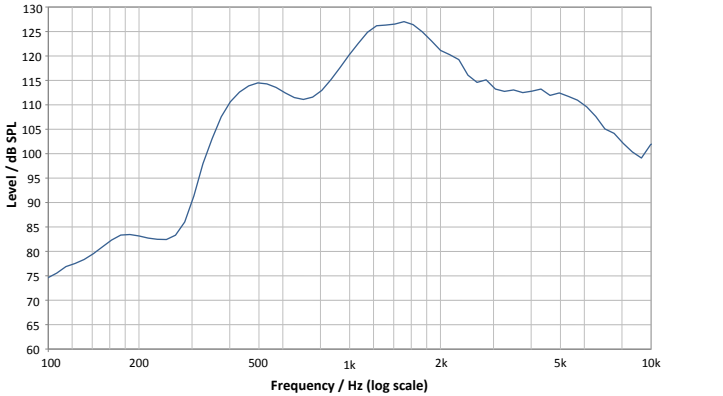
Tappings	8W	Power 15W	25W
1:2	8.0	15.0	25.0
2:3	4.0	7.5	12.5
3:4	2.0	5.0	6.0
1:3	1.5	4.0	4.0
2:4	0.7	2.0	2.0
1:4	0.4	0.8	1.0

Transformer Tapping Options:

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, 1m with 1/2 octave averaging.
Test data from NTI test equipment.



Certified Temperature:				
Protection Type	Minimum Temp	Maximum Temp		
	All units	8W unit	15W unit	25W unit
Ex d	-55°C	+70°C	+65°C	+55°C
Ex de	-50°C			

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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