

## Ex d(e), Weatherproof



### Features

- Ex d / Ex de IIC/IIIC T4/T5/T6.  
Ex d IIC/AEx d IIC Gb.
- ATEX certified.
- IECEx certified.
- UL listed for USA and Canada  
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
- CUTR certified.
- CQST certified.
- Brazilian (Inmetro) certified.
- Certified temperature -55°C to +70°C.\*
- IP66 & IP67/ NEMA 4X & 6.
- Optional Ex e terminal chamber.
- 127dB at 25W, 1m.\*
- 8W, 15W & 25W versions.
- Power tapplings, 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, 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.



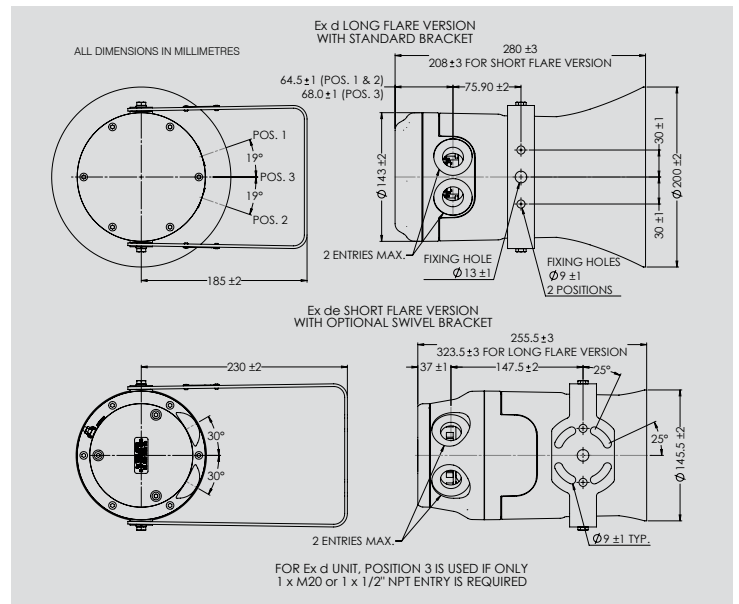
# Certification and Specification

- ATEX Ex d Gas:** Cert. no. Baseefa13ATEX0229X. Certified to: EN60079-0,1. Ex II 2G, Ex d IIC T4/T5/T6 Gb.
- ATEX Ex d Gas & Dust:** Cert. no. Baseefa13ATEX0231X. Certified to: EN60079-0,1,31. 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: EN60079-0,1,7. Ex II 2G, Ex de IIC T4/T5/T6 Gb.
- ATEX Ex de Gas & Dust:** Cert. no. Baseefa13ATEX0233X. Certified to: EN60079-0,1,7,31. 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: IEC60079-0,1. Ex d IIC T4/T5/T6 Gb.
- IECEx Ex d Gas & Dust:** Cert. no. IECEx BAS 13.0113X. Certified to: IEC60079-0,1,31. 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: IEC60079-0,1,7. Ex de IIC T4/T5/T6 Gb.
- IECEx Ex de Gas & Dust:** Cert. no. IECEx BAS 13.0115X. Certified to: EN60079-0,1,7,31. Ex de IIC T4/T5/T6 Gb, Ex tb IIIC T135°C/T100°C/T85°C Db, IP66.
- 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.
- 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.
- Russian Fire Approval:** All CUTR certified units are Russian Fire Approved.
- 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.
- Inmetro Ex d Gas:** Ex d IIC T4/T5/T6 Gb.
- Inmetro Ex d Gas & Dust:** Ex d IIC T4/T5/T6 Gb, Ex tb IIIC T135°C/T100°C/T85°C Db, IP66.
- Inmetro Ex de Gas:** Ex de IIC T4/T5/T6 Gb.
- Inmetro Ex de Gas & Dust:** Ex de IIC T4/T5/T6 Gb, Ex tb IIIC T135°C/T100°C/T85°C Db, IP66.

<b>Material:</b>	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.
<b>Fire Retardancy :</b>	Body - Glass reinforced polyester. V0 flammability rating. Outer Flare - Thermoplastic Polyester. V0 flammability rating.
<b>Finish:</b>	Body - natural black. Flare - natural black, natural red or painted as specified. (Black short flare painted black).
<b>Rated Power:</b>	8W, 15W or 25W (other ratings available, contact MEDC).
<b>Frequency Range:</b>	Frequency response 350Hz to 8kHz. 8W and 15W units are available for use @ 200Hz.
<b>Weight:</b>	Ex d/UL - 5.0kg, Ex de - 5.8kg. Based on long flare with transformer.
<b>Ingress Protection:</b>	IP66 & IP67, NEMA 4X & 6. (IPx7 & NEMA 6 on terminal chamber only)
<b>Earth Continuity:</b>	Optional for Ex de version. Not available on Ex d unit.
<b>Entries:</b>	Up to 2 x M20 or 1/2" NPT. Blanking plug available.
<b>Terminals:</b>	Ex d - 8 x 2.5mm <sup>2</sup> (4mm <sup>2</sup> solid conductor)/ 12AWG. Ex de - 8 x 4.0mm <sup>2</sup> .
<b>Mounting arrangement:</b>	Stainless steel bracket with ratchet facility, optional swivel bracket available.
<b>Labels:</b>	Optional duty and tag labels available.
<b>Dispersion angle:</b>	Long flare (short in brackets), -6dB, 1kHz = 140° (240°), 4kHz = 40° (50°)
<b>Driver Impedance:</b>	8Ω.
<b>SPL 1W/1m (Sensitivity):</b>	113dB (IIC long flare).

## Maximum Output dB (1/3 octave average smoothed @ 1m):

Flare type	8W unit		15W unit		25W unit	
	Short	Long	Short	Long	Short	Long
IIC Gas	119dB	123dB	122dB	125dB	124dB	127dB
IIIC Gas & Dust	114dB	117dB	117dB	119dB	119dB	121dB

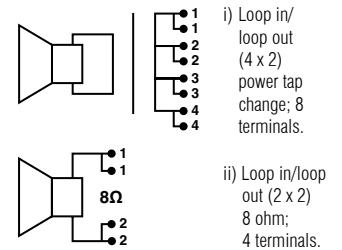


## Transformer:

Used by combining the rated power tappings below.

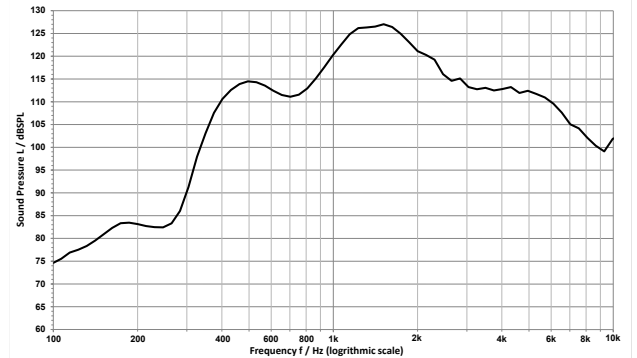
Tappings	8W	Power 15W	25W
1:2	8.0	15.0	25.0
2:3	4.0	7.5	12.5
3:4	2.0	5.0	6.0
1:3	1.5	4.0	4.0
2:4	0.7	2.0	2.0
1:4	0.4	0.8	1.0

## Transformer Tapping Options:



## 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		
		8W unit	15W unit	25W unit
Ex d/UL	-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.

Model	Certification	Ex Atmosphere	Wattage	Transformer	Labels	Entries	Options	Finish
DB4B								
<b>Certification Code</b>	<b>Ex Atmosphere Code</b>	<b>Wattage Code</b>	<b>Transformer Code</b>	<b>Labels Code</b>	<b>Entries Code</b>	<b>Options Code</b>	<b>Finish Code</b>	
ATEX Ex d D ATEX Ex de E IECEx Ex d DJ IECEx Ex de EJ UL UL UL (ordinary locations) UW Dual ATEX/UL AU Dual IECEx/UL JU CUTR Ex d DG CUTR Ex de EG CQST EX d Q Inmetro Ex d DM Inmetro Ex de EM Weatherproof W	None N* IIC Gas G IIIC Gas & Dust GD	8 Watt 8 15 Watt 15 25 Watt 25*	8Ω N 100V 100 70V 70 25V 25	None N Duty D* Tag T*	1 x M20 1B* 2 x M20 2B 2 x M20 2BP Inc 1 x plug 1 x 1/2" NPT 1C* 2 x 1/2" NPT 2C* 2 x 1/2" NPT 2CP* Inc 1 x plug	None N Swivel bracket B Capacitor C* Earth cont. G† Short flare S	Natural Black N† Natural Red R Yellow Y Grey G Blue B Special S*	
	* If Weatherproof or UL (Ordinary Locations) select N for Ex Atmosphere.	* Select 25 if 8Ω is required.		* Please specify.	* Not available Ex e.	* Specify value. † Ex e only.	* Please specify. † Short flare painted black.	

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.

