DB4BM loudspeaker range up to 25 W

Ex d, weatherproof

Alloy body, long flare version

Overview

The DB4BM is a high power explosion proof, metallic loudspeaker, with outstanding intelligibility and acoustic performance.

Certified for use in a wide range of temperatures from -60°C to +85°C, the Ex enclosure is manufactured in either marine grade alloy or stainless steel 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 108dB whilst at 1m the 25W unit produces 119dB, the 15W unit 117dB and the 8W unit 114dB.

Features

- UKEX / ATEX / IECEx
  Ex db IIC T4/T5/T6 Gb
  Ex tb IIIC T4/T5/T6 Db
- Certified temperature -60°C to +85°C
- IP66 & IP67 (terminal only)
- 119dB at 25W, 1m*
- 8W, 15W & 25W versions
- Power tappings, via integral transformer
- Frequency response 350Hz - 8kHz
- Ex enclosure – marine grade alloy or stainless steel
- Flare - high impact thermoplastic polyester
- Internal & external earth stud fitted as standard
- Stainless steel mounting bracket and cover screws
- Mounting bracket has ratchet facility as standard
- Swivel bracket standard on Stainless steel unit, optional on Alloy units
- Optional resettable fuse†

† Contact MEDC for details

Stainless steel body, short flare version

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.

ATEX IECEx UKCA

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No liability is accepted for any consequence of use.

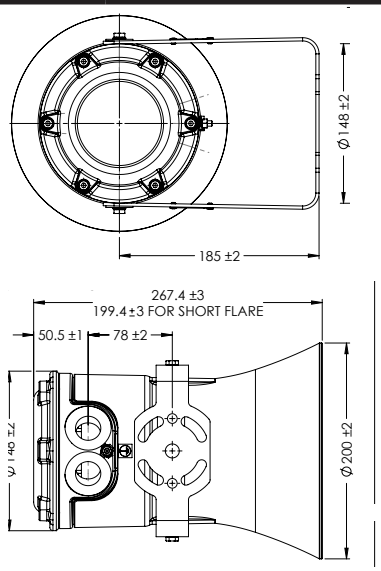
Certifications

ATEX Ex db	Cert. no. UL 21 ATEX02559X. Certified to: EN IEC 60079-0, EN 60079-1, 31 Ex II 2GD, Ex db IIC T3/T4/T5/T6 Gb, Ex tb IIIC T200°C/T135°C/T100°C/T85°C Db, IP66 (IP65 short flare)
IECEx Ex db	Cert. no. IECEx ULD 21.0017X. Certified to: IEC60079-0,1,31 Ex db IIC T3/T4/T5/T6 Gb, Ex tb IIIC T200°C/T135°C/T100°C/T85°C Db, IP66 (IP65 short flare)
UKEX Ex db	Cert. no. UL21UKEX2209X. Certified to: EN IEC 60079-0, EN 60079-1, 31 Ex II 2GD, Ex db IIC T3/T4/T5/T6 Gb, Ex tb IIIC T200°C/T135°C/T100°C/T85°C Db, IP66 (IP65 short flare)
Safe Area	EN 61010-1, EN 60529

Specifications

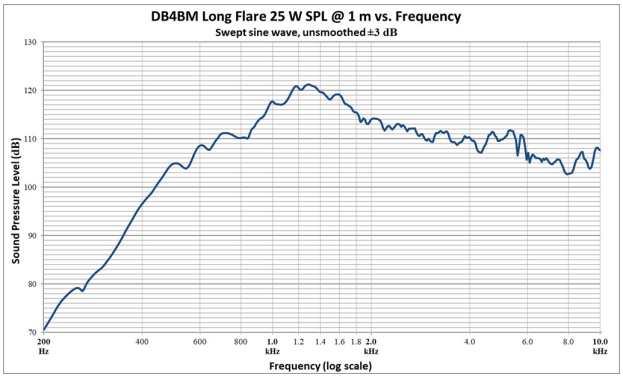
Material	Ex enclosure – marine grade alloy or stainless steel Flare - flame retardant, high impact, UV stable, thermoplastic polyester (UV stability tested to ISO 4892 part 3) Hardware - bracket, fixings and captive cover screws in 316 stainless steel
Fire retardancy	Outer flare - thermoplastic polyester. V0 flammability rating
Finish	Body – alloy: painted black. Stainless steel: painted 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	Alloy - 4.4 kg, stainless steel 8.35 kg based on long flare DC unit
Ingress protection	IP66 & IP67 (terminal only). IP65 short flare
Entries	Up to 2 x M20 or M25 or ½"or ¾" NPT. Blanking plug available
Terminals	Ex d - 8 x 2.5mm² (4mm² solid conductor)/ 12AWG. Ex de - 8 x 4.0mm²
Mounting arrangement	Stainless steel bracket with ratchet facility, optional swivel bracket available. Swivel standard on stainless steel unit
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/1m (sensitivity)	1kHz - 104dB, 1.4kHz - 108dB

General arrangement drawing (all dimensions in mm)



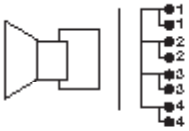
Certified temperature:

Protection type	Minimum temp	Maxiumum temp
	All units	All units
Ex d	-60°C	+85°C

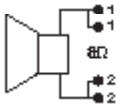


Transformer: Used by combining the rated power tappings below

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



op out (4 x 2) power
e; 8 terminals



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

Sound pressure level at 1m (dB):

Values in dB @ 1m (Unsmoothed, peak values)		8W		15W		25W	
		Long	Short	Long	Short	Long	Short
IIC & IIIC Gas & Dust	1.0kHz	110	107	112	109	115	112
IIC & IIIC Gas & Dust	1.4kHz	114	111	117	114	119	116

The data is based on a swept sine wave.
Tolerance +/- 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

Model

DB4BM

Material

Finish	Code
Alloy	A
Stainless Steel	S

Certification

Ex Certification	Code
UKEX/ATEX Ex d	D
IECEx Ex d	J
Weatherproof	W

Wattage

Wattage	Code
8 Watt	8
15 Watt	15
25 Watt	25*

* Select 25 if 8Ω is required

Transformer

Transformer	Code
8Ω	N
100V	100
70V	70
25V	25

Labels

Labels	Code
None	N
Duty	D*
Tag	T*

* Please specify

Entries

Entries	Code
1 x M20	1B
2 x M20	2B
2 x M20 inc 1 x plug	2BP
1 x ½"NPT	1C
2 x ½" NPT	2C
2 x ½" NPT inc 1 x plug	2CP
1 x M25	1D
2 x M25	2D
2 x M25 inc 1x plug	2DP
1 x ¾" NPT	1E
2 x ¾" NPT	2E
2 x ¾" NPT inc 1x plug	2EP

Options

Options	Code
None	N
Swivel bracket	B‡
Capacitor	C*
Short flare	S

‡ Alloy only - stainless steel has swivel as standard
* Specify value

Finish

Finish	Code
Natural black	N
Natural red	R
Yellow	Y
Grey	G
Blue	B
Special	S*

* Please specify