

DB20C ceiling loudspeaker range

Ex de, weatherproof



Overview

This range of ceiling-mounted loudspeakers, intended for use in potentially explosive atmospheres, has a power rating of up to 8 watts (upon request) and is suitable for use in the harsh environmental conditions found offshore and onshore in the oil, gas and petrochemical industries.

The lightweight design provides self-supporting and self-locking mounting onto a ceiling tile from 0.5 to 55mm thick.

The speaker is held in the mount via a twist-fit support and locking grille, giving access from above or below and allowing first fit of either ceiling or speakers.

The DB20C's compact design will fit a ceiling cavity of limited space and its aesthetically pleasing appearance will enhance the surroundings.

Features

- Zone 1 & 2 and Zone 21 & 22 use
- Ex II 2 GD
- IECEx certified
- DNV type approved (IEC 60945)
- IP66 & IP67
- Certified temperature -50°C to +70°C*
- GRP and Flame-Retardant ABS corrosion free construction
- Optional resettable fuse†

- 100dB(A) at 1 watt at 1 metre
- Power tapings via integral transformer
- Tool-free mounting method
- 100V or 70V line versions available
- Earth continuity available
- 8 terminal option to facilitate 'loop in and loop out' wiring

* Temperature class relates to ambient temperature

† Contact MEDC for details



ATEX IECEx



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All specifications, dimensions, weights and tolerances are nominal (typical) and Eaton reserve the right to vary all data without prior notice.
No liability is accepted for any consequence of use.

Certifications

ATEX Ex de IIC	Cert. no. Baseefa05ATEX0199 Certified to: EN60079-0, EN60079-1, EN60079-7, EN61241-0, EN61241-1 Ex II 2 GD, Ex de IIC T4, Ex tD A21 T130°C (-50°C to +70°) Ex II 2 GD, Ex de IIC T4, Ex tD A21 T115°C (-50°C to +55°) Ex II 2 GD, Ex de IIC T5, Ex tD A21 T100°C (-50°C to +40°)
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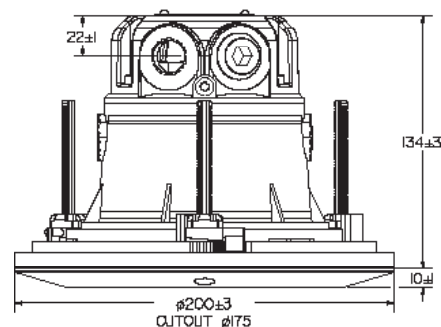
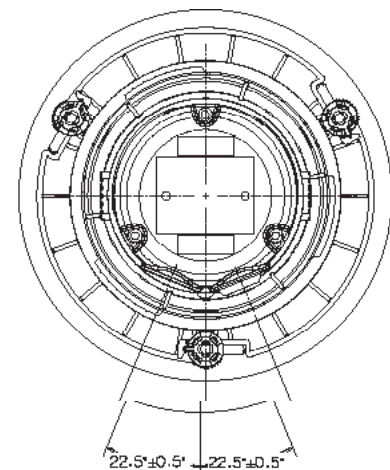
IECEX Ex de IIC	Cert. no. IECEX BAS 05.0083 Certified to: EN60079-0, EN60079-1, EN60079-7, EN61241-0, EN61241-1 Ex de IIC T4, Ex tD A21 T130°C (-50°C to +70°) Ex de IIC T4, Ex tD A21 T115°C (-50°C to +55°) Ex de IIC T5, Ex tD A21 T100°C (-50°C to +40°)
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Type approval	DNV (IEC 60945)
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Specifications

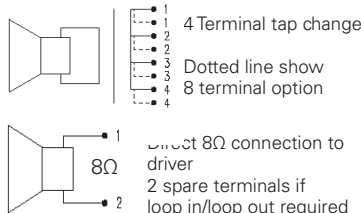
Material	Body & cover - natural black, UV stable, glass reinforced polyester Outer flare - UV stable ABS
Finish	Natural ABS finish equivalent to RAL9010
Rated power	4 Watts RMS continuous (at 25°C)
Output	Maximum output at 1W/1m is 100 dB(A). Maximum output at 4W/1m is 106 dB(A). *Other wattages available contact MEDC sales for details
Frequency range	400Hz to 7kHz
Voice coil impedance	8Ω
Certified temp	-50°C to +70°C (T4) and -50°C to +40°C (T5)
Weight	1.5kg approx
Ingress protection	IP66 & IP67
Entries	2 x M20 and 1 x certified plug
Terminals	4 x 4.0mm ² as standard. 8 x 2.5mm ² optional, ATEX and IECEx only
Mounting	Via integral ceiling-mount bezel
Ceiling cutout	Ø175mm
Earth continuity	Available via optional earthing stud

General arrangement drawing (all dimensions in mm)

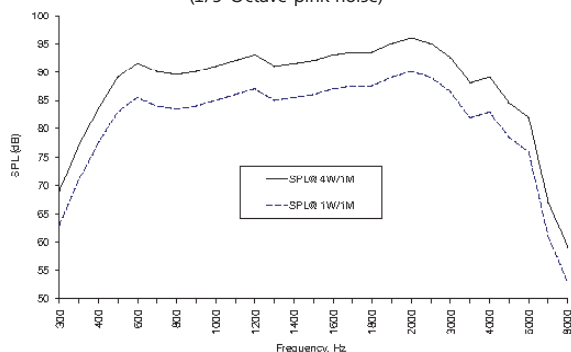


Transformer: Used by combining the rated power tapplings below

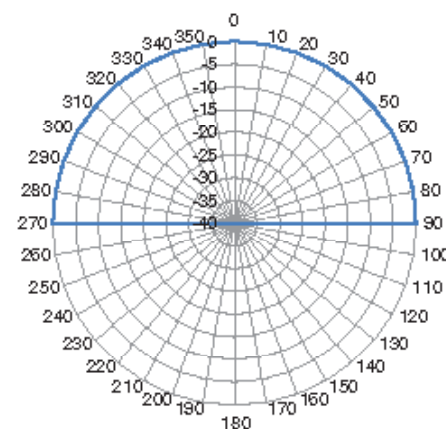
Transformer tapplings	Power (watts) 4W unit
1:2	4.00
2:3	2.00
3:4	1.00
1:3	0.75
2:4	0.38
1:4	0.20



Frequency response @ 4W/1M (DB20C 100V 4W unit)
(1/3 Octave pink noise)



Polar plot
DB20C 4W @ 1kHz



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	Transformer	Options																						
DB20C																									
	<table> <tr> <th>Certification</th> <th>Code</th> </tr> <tr> <td>ATEX IIC</td> <td>BC</td> </tr> <tr> <td>IECEX IIC</td> <td>JC</td> </tr> </table>	Certification	Code	ATEX IIC	BC	IECEX IIC	JC	<table> <tr> <th>Transformer</th> <th>Code</th> </tr> <tr> <td>Transformer</td> <td>X*</td> </tr> <tr> <td>8Ω version</td> <td>N</td> </tr> </table> *100 V line std 70V line available please specify	Transformer	Code	Transformer	X*	8Ω version	N	<table> <tr> <th>Option</th> <th>Code</th> </tr> <tr> <td>None</td> <td>N</td> </tr> <tr> <td>Tag label</td> <td>T*</td> </tr> <tr> <td>Earth continuity</td> <td>E</td> </tr> <tr> <td>8 terminals</td> <td>8†</td> </tr> </table> *Please specify †Option only available with ATEX and IECEx certified units, if not selected will be supplied with 4 terminals as standard	Option	Code	None	N	Tag label	T*	Earth continuity	E	8 terminals	8†
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