

DB20 loudspeaker range up to 8 watts

Ex de, weatherproof



Overview

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

The body and cover are manufactured from a UV stable glass reinforced polyester. The flare is manufactured from UV stable ABS.

Stainless steel screws and mounting stirrup are incorporated to ensure a corrosion-free product.

Features

- Zone 1 & 2 (Zone 21 & 22 IIC version) plus non-Ex use
- Ex II 2G Ex de IIB T3/T4
- ATEX certified
- IECEx certified
- IIC Gas Group and Dust approved version available
- TR CU certified
- CCOE certified
- IP66 & IP67
- Certified temperature: -50°C to +70°C
- GRP corrosion-free flamepath
- 115dB(A) at 8 watts at 1 metre (IIB Version @ 2.6kHz)
- Power tapings via integral transformer
- Ratcheted swivel mounting stirrup
- Stainless steel fixtures
- 100V or 70V line and 8Ω versions available
- Earth continuity available
- 8 terminal option to facilitate 'loop in and loop out' wiring

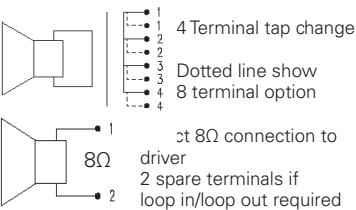


Certifications

ATEX Ex de IIB	Cert. no. Baseefa05ATEX0198 Certified to: EN60079-0, EN60079-1, EN60079-7 Ex II 2 G, Ex de IIB T3 Ex II 2 G, Ex de IIB T4
ATEX Ex de IIC	Cert. no. Baseefa05ATEX0198 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 Ex II 2 GD, Ex de IIC T4, Ex tD A21 T115°C Ex II 2 GD, Ex de IIC T5, Ex tD A21 T100°C
IECEX Ex de IIB	Cert. no. IECEX BAS 05.0082 Certified to: IEC60079-0, IEC60079-1, IEC60079-7 Ex de IIB T3 Ex de IIB T4
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 Ex de IIC T4, Ex tD A21 T115°C Ex de IIC T5, Ex tD A21 T100°C
TR CU	2Exde IIB T3/T4 2Exde IIC T4/T5, Ex tD A21 T130°C/T115°C/T100°C
CCC Ex de IIC	Ex de IIC T4 Gb, Ex tD A21 IP65 T130°C

Specifications

Material	Body & cover - UV stable, glass reinforced polyester Outer flare - UV stable ABS Mounting stirrup and fixtures in stainless steel
Finish	Natural black or painted or to client's requirements
Rated power	8 Watts RMS continuous (at 25°C)
Frequency range	600Hz to 5kHz
Voice coil impedance	8 ohms
Certified temp	IIB version: Tamb -50°C to +70°C (T3) Tamb -50°C to +40°C (T4) IIC version: Tamb -50°C to +70°C (T4) Tamb -50°C to +40°C (T5)
Weight	1.5kg approx
Ingress protection	IP66 & IP67
Entries	2 x M20 ISO + 1 x certified plug
Terminals	4 x 4.0mm ² as standard. 8 x 2.5mm ² optional, ATEX and IECEX only
Mounting	Via Stirrup with ratchet facility
Earth continuity	Available
Labels	Optional stainless steel tag and duty labels
Transformer	Used by combining the rated power tapplings below

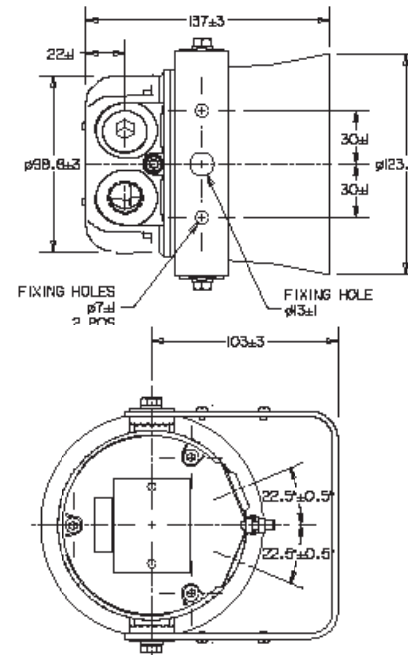


Transformer tapplings	Power (watts)	
	4W unit	8W unit
1:2	4.00	8.00
2:3	2.00	4.00
3:4	1.00	2.00
1:3	0.75	1.50
2:4	0.38	0.75
1:4	0.20	0.40

Values in dB @ 1m (Unsmoothed, peak values)		4W	8W
IIB	1.0kHz	96	99
IIB	2.6kHz	112	115
IIC	1.0kHz	84	92
IIC	2.6kHz	108	111

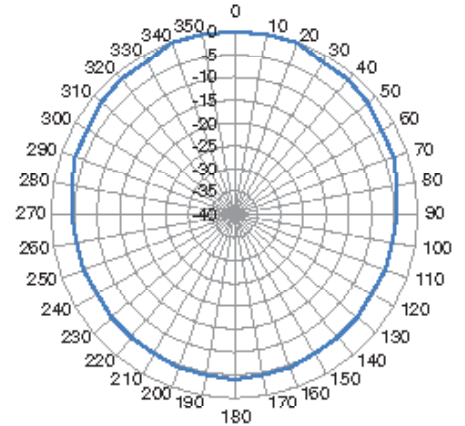
The data is based on a swept sine wave
Tolerance +/- 3dB

General arrangement drawing (all dimensions in mm)

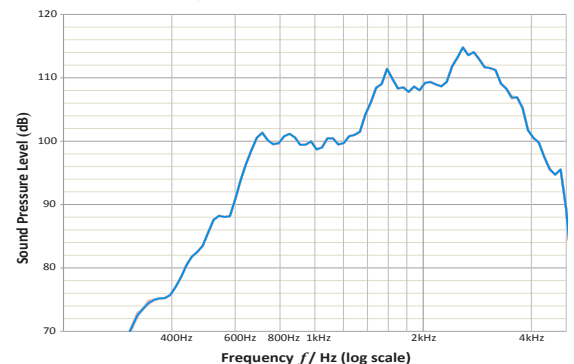


Polar plot

DB20 8W @ 1kHz



DB20 IIB, 8W, 1m 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

Model	Certification	Max rated power	Transformer	Options	Finish																																																		
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	<table border="1"> <thead> <tr> <th>Certification</th> <th>Code</th> </tr> </thead> <tbody> <tr><td>ATEX IIB</td><td>BB</td></tr> <tr><td>ATEX IIC</td><td>BC</td></tr> <tr><td>IECEX IIB</td><td>JB</td></tr> <tr><td>IECEX IIC</td><td>JC</td></tr> <tr><td>TR CU IIB</td><td>GB</td></tr> <tr><td>TR CU IIC</td><td>GC</td></tr> <tr><td>CCC IIC</td><td>QC</td></tr> <tr><td>Weatherproof</td><td>W</td></tr> </tbody> </table>	Certification	Code	ATEX IIB	BB	ATEX IIC	BC	IECEX IIB	JB	IECEX IIC	JC	TR CU IIB	GB	TR CU IIC	GC	CCC IIC	QC	Weatherproof	W	<table border="1"> <thead> <tr> <th>Power</th> <th>Code</th> </tr> </thead> <tbody> <tr><td>8 Watts</td><td>8</td></tr> <tr><td>4 Watts</td><td>4</td></tr> </tbody> </table>	Power	Code	8 Watts	8	4 Watts	4	<table border="1"> <thead> <tr> <th>Transformer</th> <th>Code</th> </tr> </thead> <tbody> <tr><td>Transformer</td><td>X*</td></tr> <tr><td>8Ω version</td><td>N</td></tr> </tbody> </table> <p>*Standard 100V Line 70V Line available please specify</p>	Transformer	Code	Transformer	X*	8Ω version	N	<table border="1"> <thead> <tr> <th>Option</th> <th>Code</th> </tr> </thead> <tbody> <tr><td>None</td><td>N</td></tr> <tr><td>Duty label</td><td>D*</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> </tbody> </table> <p>*Please specify †Option only available with ATEX and IECEX certified units, if not selected will be supplied with 4 terminals as standard</p>	Option	Code	None	N	Duty label	D*	Tag label	T*	Earth continuity	E	8 terminals	8†	<table border="1"> <thead> <tr> <th>Colour</th> <th>Code</th> </tr> </thead> <tbody> <tr><td>Natural black</td><td>N</td></tr> <tr><td>Red</td><td>R</td></tr> <tr><td>Special</td><td>S*</td></tr> </tbody> </table> <p>*Please specify</p>	Colour	Code	Natural black	N	Red	R	Special	S*
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