

DSP 15 25W EExmNT (IIC) Explosion-proof Horn Speaker



Features and Functions

- Explosion-proof horn speaker for use in explosive (hazardous) areas
- Robust industrial technology
- Sturdy design
- Stainless steel bracket
- Degree of protection IP67
- Light weight

The explosion-proof horn speakers of the DSP series are ideal for use in potentially explosive environments of Class 1 Zone 1 AEx d e mb IIC T4 Gb $-50^{\circ}\text{C} \leq T_a \leq +60^{\circ}\text{C}$ with high ambient noise levels. The connection cable is inserted via cable gland. The power is adjusted on the primary side of the 100 V transformer. They are available with 15 W and 25 W rated power. FM and or LC-UL listing available on selected versions.

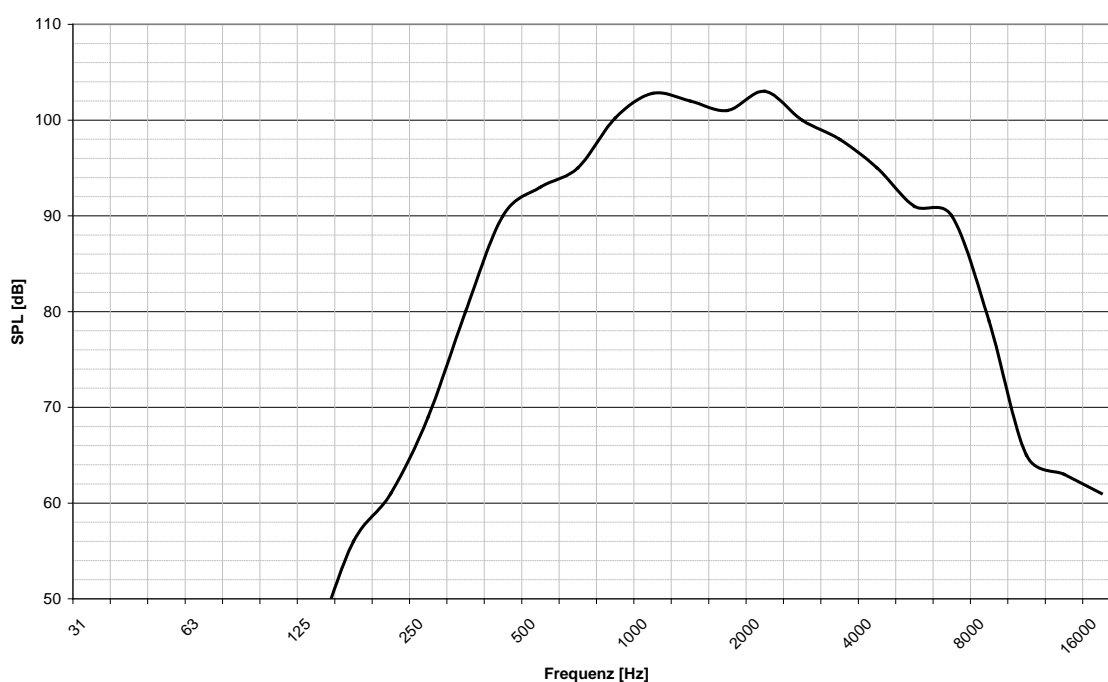
Mechanical Data

• Housing	Anti-static plastic
• Dimensions width x height x length	186 mm x 144 mm x 207 mm (7.3" x 5.7" x 8.2")
• Cable entries	2 x M20 x 1.5
• Cable gland	1 x M20
• Connection	Terminals
• Weight	Approx. 2.2 kg (approx. 4.9 lbs)
• Color	Black
• Mounting	Stainless steel bracket

Electrical Data

• Rated power	25 W
• Transformer	100 V: 25 W / 15 W / 6.5 W / 5 W / 2.5 W / 1.5 W
• Sound pressure level 1 W, 1 m	102 dB +/- 3 dB
• Sound pressure level 25 W, 1 m	115 dB +/- 3 dB
• Frequency range	450 Hz to 6,000 Hz
• Dispersion -6 dB	1 kHz / 4 kHz: 105° / 35°

Frequency Diagram



Measurement Conditions

Sound pressure level (SPL): 1 W / 1 m (3.3 ft)

Pink noise: 1/3 octave filter

Sound Pressure Level Related to Distance

P _{max} :	Level (dB) at	(-6 dB)	(-14 dB)	(-20 dB)	(-23 dB)	(-26 dB)	(-28 dB)	(-29 dB)	(-36 dB)	
	25 W	1 m (3.3 ft)	2 m (6.6 ft)	5 m (16.4 ft)	10 m (32.8 ft)	15 m (49.2 ft)	20 m (65.6 ft)	25 m (82 ft)	30 m (98.4 ft)	65 m (213.3 ft)
		115	109	101	95	92	89	87	86	79

Polar Diagram

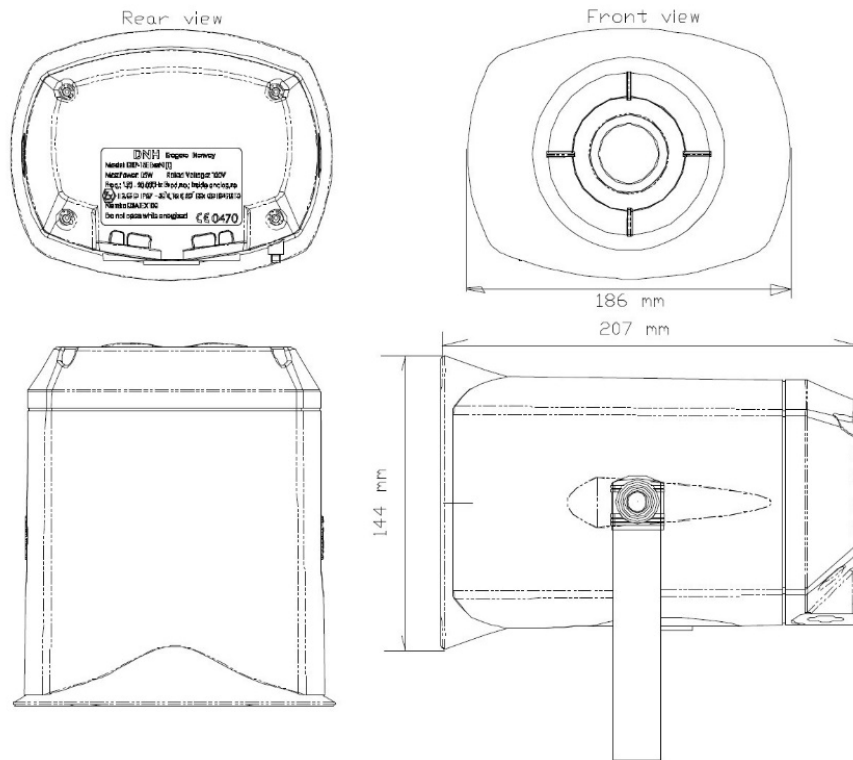
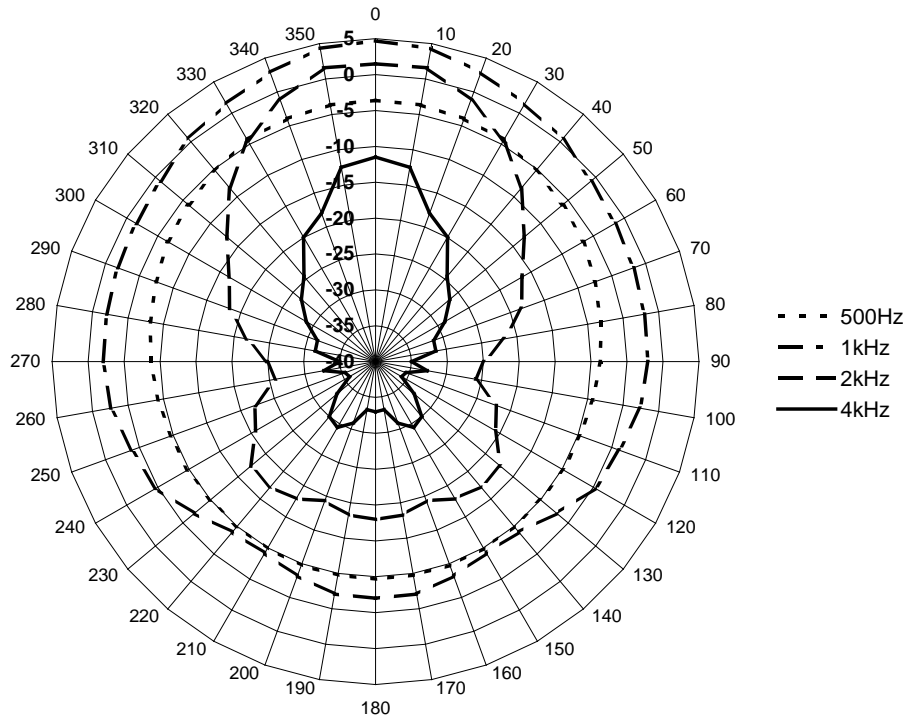


Fig. 1: Dimensional drawing DSP 15 25W EExmNT (IIC)

Environmental Requirements and Standards

• Ambient temperature during operation	-50 °C to +60 °C (-58 °F to +140 °F)
• Relative humidity (non-condensing)	Max. 95 %
• Degree of Protection	IP67
• Approval	LC Labtest, ATEX, GOST, CQST, IECEx, INMETRO
• Markings	Class 1 Zone 1 AEx d e mb IIB+H2/IIC T4 Gb LC15.13026 -50°C≤Ta≥+60°C Ex II 2G Ex d e mb IIC T4 Gb Ex II 2D Ex tb IIIC T105°

Order Data

Rated Power	Type Number
25 W	001-225-048
15 W	001-215-024

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