DNH
Loudspeakers



DSP-15EExmNL(T)

Ex-horn loudspeaker

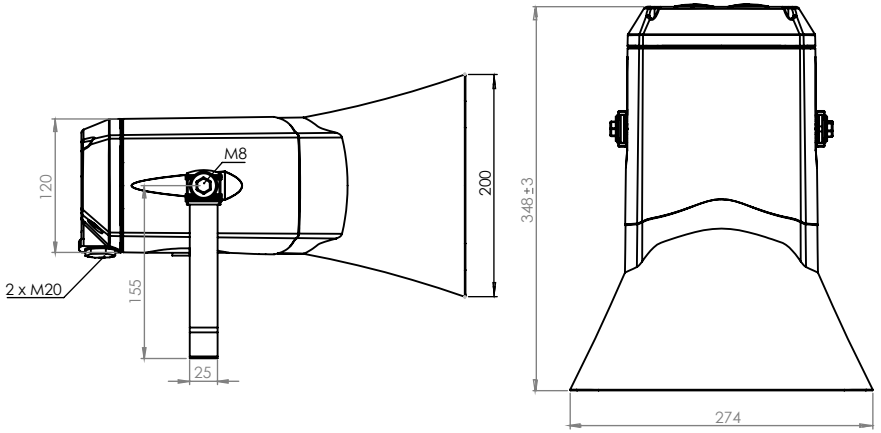


Fig. 1 - Technical drawing

All units in mm

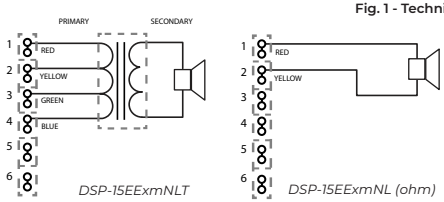


Fig. 2 - Circuit Diagram

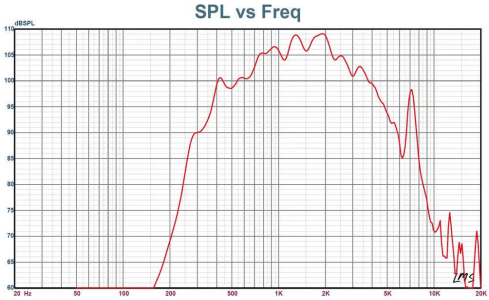


Fig. 3 - SPL at 1W/1m

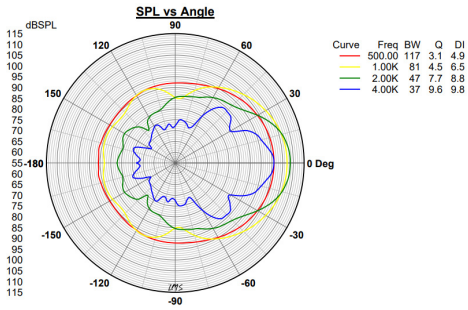


Fig. 4 - Polar plot 1W/1m

TECHNICAL SPECIFICATIONS		
Material	Anti-static PA	
Color	Black	
Mounting	Bracket	
Cable entry (standard)	2xM20 blanking plugs	
Termination (standard)	Push-in (e-chamber)	
Weight	2,2 kg	
IP-rating	66 / 67	
Ambient Temp. Min/Max	-50°C / 60°C	
Rated (standard) / Max. Power	25W / 30W	
Element impedance (standard)	8 ohm	
Certified Frequency Range	150 - 20000 Hz	
Gas group variant:	IIB+H_2	IIC
SPL 1W/1m	109 dB	105 dB
SPL rated power	122 dB	118 dB
Effective freq. range	380 - 7000 Hz	400 - 7000 Hz
Dispersion (-6dB) 1kHz / 4kHz	100° / 30°	73° / 33°

APPROVALS AND CERTIFICATIONS	
Ex-marking	Ex II 2 G Ex db eb mb IIB+H_2 / IIC T4 Gb Ex II 2 D Ex tb IIIC T105°C Db
Ex-Zone	Zone 1 & Zone 21
ATEX certificate	Presafe 18 ATEX 13498X
IECEx certificate	IECEx PRE 18.0072X
Other certificates (variants*)	INMETRO, CCC, US/CAN, MED, EQM, ++
*contact the Sales team to ensure you get the right approvals	

Copy of all certificates can be found by scanning QR-code or going to the DNH web page: www.dnh.no

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MAIN VARIANT DESCRIPTION

Product Type **DSP-15EExmN(T)** cover all the following variants, which are clearly described on product label:

- Gas Group **IIB+H_2** or **IIC** variant marked on back lid and on product label. Note that *all* variants are **Dust Group IIIC** certified.

- DSP-15EExmNL**T:** Model with long flare and with transformer. *(100V standard, but 70V etc. available on request.).*
- DSP-15EExmNL: Long flared, low impedance model without transformer. *(8Ω standard, but 4 / 16 / 20 Ω available on request.)*
- DSP-15EExmNL**MF**(T): "Maintenance Free" long flare variant with encapsulated e-chamber and permanently connected cable. Constructed not to be opened. "MF" models skip steps 1-7 in the IOM section below.

All variants contain internal thermal fuses.

TRANSFORMER / POWER VARIANTS

25W TRANSFORMER 100V primary tappings (standard)	
1 : 2	25 W
2 : 3	15 W
3 : 4	6,5 W
1 : 3	5,0 W
2 : 4	2,5 W
1 : 4	1,5 W

For variant specific tappings see label on loudspeaker.
See more transfomer and termination variants by scanning QR-code or by going to the DNH web page.
(*DSP-15EExmN(L)T - Transformer Variants)*

CABLE ENTRY VARIANTS

Standard entries are 2xM20 provided with Ex-certified plastic blanking plugs.
Can be delivered with 1/2" NPT threaded entries and any available cable gland or blanking plug that meet the Ex-specifications of the product.

Max 15mm threaded length.

BRACKET VARIANTS

1. **SSB:** Stainless steel U-bracket (standard)
2. **PB:** Anti-static plastic U-bracket
3. **SSW:** Stainless steel swivel bracket

See detailed specification of different bracket variants by scanning QR-code or by going to the DNH web page.
(*Drawing 2858 - DSP-15EExmN(T) bracket options*)

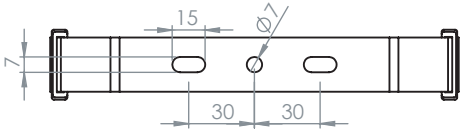


Fig. 5 - Hole placement - Stainless steel bracket

INSTALLATION, OPERATION AND MAINTENANCE PROCEDURES:

WARNING: Do not open the Ex-loudspeaker when the speaker is energized.

1. Open the lid to the termination chamber by loosening the four screws (TX20) on the lid.

2. Use only appropriate ATEX certified 'Ex eb/tb' cable glands/blind plugs reflecting the same specifications as the rest of the loudspeaker with respect to IP rating and environmental temperature.
Max 15mm threaded length.

3. Lead cable through cable gland and connect to the terminal according to required tapping.

4. If the Ex-loudspeaker is to be earthed use marked M4 earth screw (TX20) inside the termination chamber.

5. Every time the back lid is removed, check that the gasket is fitted correctly to the lid before you refit the back lid. **Do not use any lubricants on the gasket.**

6. The lid screws for the termination chamber should be fastened with a torque of 0,95-1,2Nm to ensure the IP-rating

7. To change position of the loudspeaker, adjust the bracket by loosening, adjusting and tightening the screws as required. The Ex-loudspeaker must remain in a position ensuring that entering water will be drained from the sound channel.

Cont. on next page

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1. Make sure that the Ex-loudspeaker is connected to the correct voltage, frequency and power stated on labels on the model.
2. Make sure that the environmental temperature is within the certified temperature range.
3. Keep the loudspeaker clean of foreign elements, such as chemicals, soaps, acids etc.
4. DSP-15EExmN(T) is certified according to Directive 2014/34/EU and EN IEC 60079-0: 2018, EN 60079-1: 2014 and EN 60079-7: 2015/A1:2018, EN 60079-18:2015/A1: 2017 and EN 60079-31:2014
5. The loudspeaker is supplied with two years warranty against defective workmanship.
6. **Special conditions for safe use:**

   · The loudspeaker shall only be installed in areas where there is a low risk of impact.

   · When the bracket of the loudspeaker is mounted onto the construction, the bracket must be connected to earth potential through the construction.

CE 0470

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