

# DNH

Loudspeakers

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## HP-20EExIIN(T)

Ex-horn loudspeaker



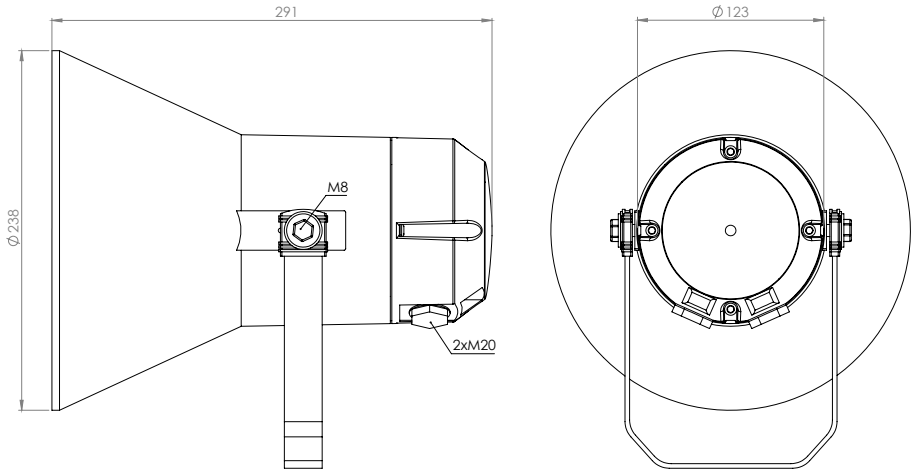


Fig. 1 - Technical drawing

All units in mm

**PRODUCT DESCRIPTION**

This Ex horn loudspeaker is specifically designed for use in Zone 2 and Zone 22 areas, and is made from antistatic polyamide. HP-20EExIIN(T) is low in weight and high in sound pressure level.

Product Type **HP-20EExIIN(T)** cover the following main variants, which are clearly described on product label:  
 - **HP-20EExIIN**: Low impedance variant. 8 ohm as standard.  
 - **HP-20EExIINT**: Variant with 100V primary tapped transformer. Transformer type up to 20W as max tapping.

All variants are **Gas Group IIC** and **Dust Group IIIC** certified.

TECHNICAL SPECIFICATIONS	
Material	Anti-static PA
Color	Black
Mounting	Bracket
Cable entry (standard)	2xM20 blanking plugs
Termination (standard)	Spring clamp (e-chamber)
Weight (With / without transformer)	2,2 kg / 1,7kg
IP-rating	66
Ambient Temp. Min/Max	-20°C / 50°C
Rated (standard) / Max. Rated Power	20W / 20W
Element impedance (standard)	8 ohm
Certified Frequency Range	250 - 20000 Hz
SPL 1W/1m	110 dB
SPL rated power	122 dB
Effective freq. range	310 - 8000 Hz
Dispersion (-6dB) 1kHz / 4kHz	115° / 25°
Directivity Factor, Q 1kHz / 4kHz	3,4 / 14,1

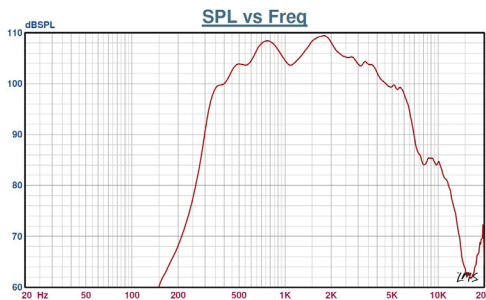


Fig. 2 - SPL at 1W/1m

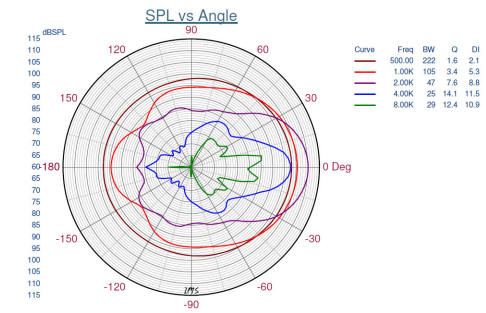


Fig. 3 - Polar plot 1W/1m

APPROVALS AND CERTIFICATIONS	
Ex-marking	
Ex-Zone	Zone 2 & Zone 22
ATEX certificate	DNV 25 ATEX 51852X
IECEx certificate	IECEx DNV 25.0074X

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



DNH reserves the right to alter specifications without notice

**TRANSFORMER / POWER VARIANTS**

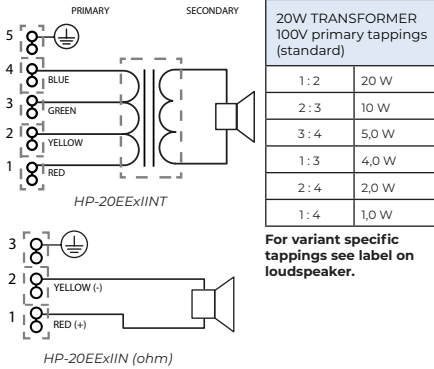


Fig. 4 - Circuit Diagrams

**TERMINAL VARIANTS**

HP-20EExIIN(T) is certified for use with Wago 294 terminal (Standard).  
Variant can be supplied with Weidmuller MK/BK if screw terminal is preferred.

**BRACKET VARIANTS**

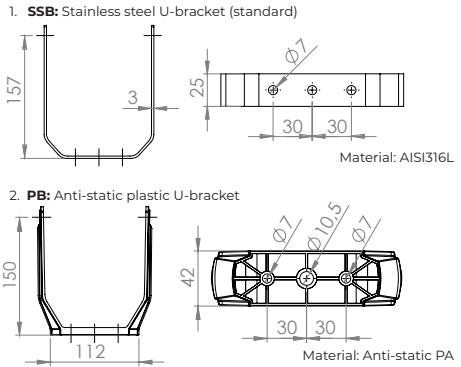


Fig. 5 - Brackets

**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.

**INSTALLATION, OPERATION AND MAINTENANCE PROCEDURES:**

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

- When mounting the bracket ensure to use all washers in the same position that the Ex-loudspeaker is delivered with.
- For screw terminals all terminal screws, used and unused, shall be tightened down to between:  
BK - TUV 18 ATEX 8209U: 0,5Nm and 0,7Nm  
MK - TUV 18 ATEX 8209U: 0,4Nm and 0,45Nm
- Be sure that the Ex-loudspeaker is connected to the correct voltage, frequency and power stated on labels on the model.
- The lid screws for the termination chamber (TX20) should be fastened with a torque of 1,5Nm to ensure the stated IP- rating.
- Use only correct ATEX/IECEx certified 'Ex ec' or 'Ex eb' cable glands/blind plugs reflecting the same specifications as the rest of the loudspeaker with respect to IP rating and environmental temperature. Max M20 or 1/2"NPT.
- The Ex-loudspeakers should remain in a position so that entering water will be drained from the sound channel. Be sure that the environmental temperature is within the certified temperature range.
- Keep the loudspeaker clean of foreign elements, such as chemicals, soaps, acids etc.
- HP-20EExIIN (T) is certified according to Directive 2014/34/EU and EN IEC 60079-0: 2018, EN IEC 60079:2015, EN 60079-7:2015/A1:2018 and EN 60079-31:2014.
- The loudspeaker is supplied with two years warranty against defective workmanship.
- Special conditions for safe use:**
  - The loudspeaker should only be installed in areas where there is a low risk of impact.





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Design, manufacture and quality by

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