

# [1] EU-TYPE EXAMINATION CERTIFICATE

[2] Equipment or Protected System Intended for use  
in Potentially explosive atmospheres  
Directive 2014/34/EU

[3] EU-Type Examination Certificate Number: Nemko 09ATEX 1322X Issue 7

[4] Product: Loudspeaker

[5] Manufacturer: DNH AS

[6] Address: Gruveveien 2/6  
3770 Kragerø  
Norway

[7] This product and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

[8] Nemko AS, notified body number 0470, in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in confidential report no.

D0001761, rev 02

[9] Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN 60079-0: 2012/A11:2013, EN 60079-1: 2014, EN 60079-7: 2007, EN 60079-18: 2009 and EN 60079-31: 2009.

[10] If the sign "X" is placed after the certificate number, it indicates that the product is subject to the Specific Conditions of Use specified in the schedule to this certificate.

[11] This EU - TYPE EXAMINATION CERTIFICATE relates only to the design and construction of the specified product. Further requirements of the Directive apply to the manufacturing process and supply of this product. These are not covered by this certificate

[12] The marking of the product shall include the following:

For DSP-15EExmN (T) and  
DSP-15EExmNM (T)  
LH3-UC25XS and LH3-  
UC25XL



II 2G Ex d e mb IIB+H<sub>2</sub>/IIC T4 Gb

-50°C ≤ Ta ≤ +60°C

II 2D Ex tb IIIC T105°C



II 2G Ex d e mb IIB+H<sub>2</sub> T4 Gb

-50°C ≤ Ta ≤ +60°C

II 2D Ex tb IIIC T105°C

Oslo, 2016-09-14

Arne Hortman  
Certification Manager



## [13] Schedule

[14] **EU-TYPE EXAMINATION CERTIFICATE No**    **Nemko 09ATEX1322X**    **Issue 7**

[15] **Description of Product**

This Certificate covers a loudspeaker. T in the designation indicates design with transformer. For IIC sintered metal of stainless steel, type SIKA-R 200 is used. For IIB +H<sub>2</sub> sintered metal of bronze, type SIKA-B 200 is used.

### Type Designations

Type	Marking	Ambient temperature	Freq. range
DSP-15EExmN(T)	 II 2G Ex d e mb IIB+H <sub>2</sub> /IIC T4 Gb II 2D Ex tb IIIC T105°C	-50°C ≤ Ta ≤ +60°C	150 – 20000Hz
DSP-15EExmNM(T)	 II 2G Ex d e mb IIB+H <sub>2</sub> /IIC T4 Gb II 2D Ex tb IIIC T105°C	-50°C ≤ Ta ≤ +60°C	150 – 20000Hz
LH3-UC25XS and LH3-UC25XL	 II 2G Ex d e mb IIB+H <sub>2</sub> T4 Gb II 2D Ex tb IIIC T105°C	-50°C ≤ Ta ≤ +60°C	150 – 20000Hz

### Electrical Data

**Current, max.:** 0,25A

**Variants:** 1. With encapsulated e-chamber and permanently connected cable.  
2. «L» in type designation indicates long flare.

The variants (LH3-UC25XS and LH3-UC25XL) are limited to the following:

-  II 2G Ex d e mb IIB+H<sub>2</sub> T4 Gb
-  II 2D Ex tb IIIC T105°C
- 100V trafo
- S: Short flare
- L: Long flare
- Alternative power tapplings from transformer

Two additional wires from secondary side of transformer for impedance measurement when it is not operational

### Degrees of protection (IP Code)

IP66 and IP67 (for e-chamber) according to IEC 60529 Edition 2.1.

[16] **Report No. D0001761/02**

### Descriptive Documents

Number	Title	Rev	Date
1188-A4-G	LMC170 Variant beskrivelser	G	04.05.2015
2205-A3 (Drawing)	*DSP-15EEx-m- model/T Gas group: IIB+H <sub>2</sub> or IIC	6	30.08.2016
2205-A3 (Partlist)	*DSP-15EExmN/T DSP-15EExmNM/ T	8	30.08.2016
2739DSP-15*	DSP-15: LH3-UC25XS, LH3-UC25XL	-	09.03.2016

\*Updated documents

### Certificate History and Associated Nemko Reports

Issue	Date	Report	Description
0	2010-10-19	136857	Prime Certificate released.
1	2011-01-17	165713	Ingress protection implemented in the certificate.
2	2011-10-06	188675	The descriptive documents are updated to include IECEx components and standards.
3	2012-08-06	203277	Conditions of the certificate were introduced and therefore an "X" suffix was added to the certificate number.
4	2013-06-06	231606	Issue 4. Two modifications 1. Removal of specific condition for wiring of transformer T-48. Requirement of "min. Ø0.25mm wire, Gr2" for wiring is removed. 2. Two new separately certified 128°C thermal cutoff are provided. One is replacing the previously 141°C thermal cutoff. The other is inserted on the windings of transformer.
5	2015-06-30	D0001761	Issue 5. Modifications <ul style="list-style-type: none"> <li>• New compound for cemented joint around the magnet and moulding.</li> <li>• Update to EN 60079-0: 2012.</li> <li>• Thermal fuses limits the temperature to 84°C</li> <li>• "Special conditions for safe use" is updated.</li> <li>• The ambient temperature range changed.</li> <li>• s-models removed.</li> <li>• PolyOne plastic can be used as an alternative to Vestamid for the enclosure.</li> </ul>
6	2016-04-06	D0001761/01	Issue 6. This edition is made due to inclusion of the alternative variants LH3-UC25XS and LH3-UC25XL.
7	2016-09-14	D0001761/02	Issue 7. Addition of alternative terminals.

#### [17] Specific Conditions of 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.

#### [18] Essential Health and Safety Requirements

Essential Health and Safety Requirements (EHSRs) are covered by the standards listed at item 9