

[1] EC-TYPE EXAMINATION CERTIFICATE

[2] Equipment or Protected System Intended for use
in Potentially explosive atmospheres
Directive 94/9/EC

[3] EC-Type Examination Certificate Number: Nemko 09ATEX 1322X Issue 6

[4] Equipment or Protective System: Loudspeaker

[5] Applicant/ Manufacturer: DNH AS

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

[7] This equipment or protective system 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 9 of Council Directive 94/9/EC of 23 March 1994, certifies that this equipment or protective system has been found to comply with the Essential Health and Safety requirements relating to the design and construction of equipment and protective systems 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 01

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

EN 60079-0: 2012, 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 equipment or protective system is subject to special conditions for safe use specified in the schedule to this certificate.

[11] This EC-TYPE EXAMINATION CERTIFICATE relates only to the design, examination and tests of the specified equipment or protective system in accordance to the directive 94/9/EC.

Further requirements of the Directive apply to the manufacturing process and supply of this equipment or protective system. These are not covered by this certificate.

[12] The marking of the equipment or protective system shall include the following:

For DSP-15EExmN (T) and DSP-15EExmNM (T)		II 2G II 2D	Ex d e mb IIB+H ₂ /IIC T4 Gb Ex tb IIIC T105°C	-50°C ≤ Ta ≤ +60°C
LH3-UC25XS and LH3- UC25XL		II 2G II 2D	Ex d e mb IIB+H ₂ T4 Gb Ex tb IIIC T105°C	-50°C ≤ Ta ≤ +60°C

Oslo, 2016-04-06



Arne Hortman
Certification Manager, Ex-products



[13] Schedule

[14] **EC-TYPE EXAMINATION CERTIFICATE No** **Nemko 09ATEX1322X** **Issue 5**

[15] **Description of Equipment or Protective System**

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 +H2 sintered metal of bronze, type SIKA-B 200 is used.

Type Designations / Technical Data

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

Voltage: 100V.

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+H₂ T4 Gb
-  II 2D Ex tb IIIC T105°C
- 100V trafo
- S: Short flare
- L: Long flare
- Alternative power tappings from transformer
- Two additional wires from secondary side of transformer for impedance measurement when it is not operational

Ingress Protection Code

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



[16] Report No. D0001761

Descriptive Documents

Name/Number	Rev.	Date	Title/Description	Sheets
1188-A4-G	G	04.05.2015	LMC170 Variant beskrivelser	1
2205-A3 Drawing	5	04.02.2015	DSP-15EEx-m- model/T Gas group: IIB+H2 or IIC	1
2205-A3 (Partlist)	7	04.05.2015	DSP-15EExmN/T DSP-15EExmNM/ T	2
2739DSP-15*	-	09.03.2016	DSP-15: LH3-UC25XS, LH3-UC25XL	1

*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"> • New compound for cemented joint around the magnet and moulding. • Update to EN 60079-0: 2012. • Thermal fuses limits the temperature to 84°C • "Special conditions for safe use" is updated. • The ambient temperature range changed. • s-models removed. • PolyOne plastic can be used as an alternative to Vestamid for the enclosure.
6	2016-04-06	D0001761/01	Issue 6. This edition is made due to inclusion of the alternative variants LH3-UC25XS and LH3-UC25XL.

[17] Specific / 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.

[18] Essential Health and Safety Requirements

See item 9

END OF CERTIFICATE