



IECEX Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification Scheme for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.: IECEx DEK 15.0040X Issue No: 1 Certificate history:
Issue No. 1 (2016-11-24)
Status: **Current** Page 1 of 4 Issue No. 0 (2015-10-05)
Date of Issue: **2016-11-24**
Applicant: **Hadro Techniek B.V.**
Westbaan 270
2841 MC Moordrecht
The Netherlands
Equipment: **Magnetic Level Switch, Series LMS-HaD**
Optional accessory:
Type of Protection: **Ex d and Ex tb**
Marking:
Ex d IIC T3...T4 Gb and
Ex tb IIIC T135 °C...T200 °C Db and
Ex d I Mb (for LMS-HaD-S-... only)

Approved for issue on behalf of the IECEx
Certification Body:

R. Schuller

Position:

Certification Manager

Signature:
(for printed version)

Date:

2016-11-24

1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting the [Official IECEx Website](http://www.iecex.com).

Certificate issued by:

DEKRA Certification B.V.
Meander 1051,
6825 MJ Arnhem
The Netherlands





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Manufacturer: **Hadro Techniek B.V.**
Westbaan 270
2841 MC Moordrecht
The Netherlands

Additional Manufacturing location(s):

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements. This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended.

STANDARDS:

The electrical apparatus and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards:

IEC 60079-0 : 2011 Edition:6.0	Explosive atmospheres - Part 0: General requirements
IEC 60079-1 : 2007-04 Edition:6	Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
IEC 60079-31 : 2008 Edition:1	Explosive atmospheres – Part 31: Equipment dust ignition protection by enclosure 't'

*This Certificate **does not** indicate compliance with electrical safety and performance requirements other than those expressly included in the Standards listed above.*

TEST & ASSESSMENT REPORTS:

A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in

Test Report:

[NL/DEK/ExTR15.0051/00](#)

Quality Assessment Report:

[NL/KIWA/QAR16.0001/00](#)



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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

Magnetic Level Switch, Series LMS-HaD, is intended to be used with a Magnetic Level Gauge Pointer. The Switch is activated by the magnetic float of the Magnetic Level Gauge Pointer and acts as level switch. The Switch consists of one or two micro switches and terminal blocks in an aluminium or stainless steel certified enclosure and an thermal insulating mounting plate.

For the type designation and thermal data see Annex 1 to this certificate.

Electrical data

Rated voltage: 10 – 230 Vac/dc

Load: max. 2 A, 40 W, 100 VA per micro switch

CONDITIONS OF CERTIFICATION: YES as shown below:

- For the thermal data see Annex 1.
- Flameproof joints are not intended to be repaired.
- The risk from electrostatic discharges shall be prevented by the user.



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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above):

added to new IECEx QAR

Annex:

[217674100-Annex1.pdf](#)

Annex 1 to Certificate of Conformity IECEx DEK 15.0040X, issue 0
Annex 1 to EC-Type Examination Certificate DEKRA 15ATEX0059 X, issue 1
Annex 1 to Report NL/DEK/ExTR15.0051/00

Type designation

LMS-HaD - A - M1 - 2 - G

a b c d e

Designation	Explanation	Value	Explanation
a	Model	LMS-HaD	Fixed part of the type designation
b	Enclosure material	A S	Aluminium (Only for EPL Gb and Db) Stainless steel
c	Entries	N1 N2 M1 N12 N22 M12	1 x NPT 3/4 1 x NPT 1/2 1 x M20x1.5 2 x NPT 3/4 2 x NPT 1/2 2 x M20x1.5
d	Number of switches	1 2	1 micro switch 2 micro switches
e	Switch contacts	none G	Standard Gold

Thermal data

Ambient temperature range -40 °C to +60 °C.

The process temperature is the temperature of the process medium inside the Magnetic Level Gauge Pointer. The minimum process temperature is -40 °C.

The maximum process temperature for EPL Mb is 150 °C.

The relation between the maximum process temperature, temperature class and maximum surface temperature for EPL Gb and Db is listed in the table below.

Maximum process temperature [°C]	Temperature class for EPL Gb	Maximum surface temperature for EPL Db
120	T4	T135 °C
160	T3	T200 °C
190 *1	T3	T200 °C

*1; The float tube of the Magnetic Level Gauge Pointer is insulated with a layer of glass fiber of at least 2 mm thickness as shown in the instruction manual.