

# TYPE APPROVAL CERTIFICATE

**This is to certify:**  
**That the Level Switches**

with type designation(s)  
**ERH-x-y (-K), ERH-x-07, ERH-x-07-K, ERH-xx-20**

Issued to  
**Aplisens S.A.**  
**Warszawa, Poland**

is found to comply with  
**DNV GL rules for classification – Ships and offshore units**

**Application :**

**Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV GL.**

**Location classes:**

Type	Temperature	Humidity	Vibration	EMC	Enclosure
<b>ERH-x-y (-K)</b>	<b>D</b>	<b>B</b>	<b>A</b>	<b>NA</b>	<b>C/IP56**, D/IP68*</b>
<b>ERH-x-07, ERH-x-07-K</b>	<b>D</b>	<b>B</b>	<b>A</b>	<b>NA</b>	<b>With fixed cable: D/IP68 Without fixed cable: D/IP68</b>
<b>ERH-xx-20</b>	<b>C</b>	<b>B</b>	<b>A</b>	<b>NA</b>	<b>D/IP68</b>

**\*\* IP66 (applies to both types ERH-01..-04-06 (-K) and ERH-01..-04-16 (-K)**

**\* ERH-01...-04-16.1 (-K)**

This Certificate is valid until **2020-12-31**.

Issued at **Høvik** on **2016-02-01**

DNV GL local station: **Gdansk**

Approval Engineer: **Ståle Sneen**

for **DNV GL**

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**Odd Magne Nesvåg**  
**Head of Section**

This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid. The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.

## Product description

Type designations:

Version with supply voltage 230V, 50-60Hz in:

ERH-x-y, covering the following variants:

x = 01, 02, 03, 04 y = 07; 07-K; 06; 06-K; 16; 16-K; 16.1; 16.1-K

Version with neodymium magnet in:

ERH-x-y, covering the following variants:

x = 01, 02, 03, 04 y = 06, 06-K, 07, 07-K

Magnetic Level Switches ERH-xx-20.

## Application/Limitation

ERH-04-y: Float mechanism to be provided with additional fastening guide when found necessary.

Ex-certification is not covered by this certificate. Application in hazardous area to be approved in each case according to the Rules and Ex-Certification/ Special Condition for Safe Use listed in valid Ex-certificate issued by a notified/recognized Certification Body.

## Type Approval documentation

Type:	ERH-x-06 ERH-x-06-K	ERH-x-07, ERH-x-07-K	ERH-x-16, ERH-x-16-K, ERH-x-16.1, ERH-x-16.1-K	ERH-xx-20
Oper./maint. manual:	ER5-1030	ER5- 1047	ER5-1543	ER5-1729, Rev.2015-03
Tech. Accept. Spec.:	ER5-1029	ER5- 1046	ER5-1542	ER5-1734
Drawings:	ER3-1466, -1468, -1464-2 ER4-1003, -1004, -1005, -1006.	ER4-1042, - 1043, -1044, - 1045, -1446-3	ER3-1536, ER4-1540,-1547,-1548, -1549	ER4-1717- ER4-1700-
Test Reports:	ZAP S.A. No 32/92	ZAP S.A. No 46/92	Attestation Statement: KDB No 99.017, incl. Appendix 2 KDB Record 3 and 13 Supplementary certificate No3, No4, No5 of the Type Test WE-KDB 04 ATEX352	Test report No 021/LBS -710/2015, dated 2015-02-04

Test report No. 146/LBS-897/2006

Test Report No. ERH-01-07-Nr 01/12 dated 19-01-2012

Design changes as per the following drawings are included in the type approval:

ER4-1540 – sheet 3	ER4-1549 – sheet 3
ER4-1547 – sheet 3	ER1-1585 – sheet 1
ER4-1548 – sheet 3	ER1-1594 – sheet 1
ER3-1446 – sheet 1, 2, 4, 5	ER3-1467 – sheet 1 and 3
ER3-1464 – sheet 1, 2, 4, 5	ER3-1468 – sheet 1 and 3
ER3-1465 – sheet 1, 3	ER3-1567 – sheet 1, 4 and 5
ER3-1466 – sheet 1, 3	
ER4-1003 – sheet 1, 4	ER4-1044 – sheet 1, 3
ER4-1004 – sheet 1, 3	ER4-1045 – sheet 1, 3
ER4-1005 – sheet 1, 3	ER4-1540 – sheet 1
ER4-1006 – sheet 1, 3	ER4-1547 – sheet 1
ER4-1042 – sheet 1, 2, 3, 4	ER4-1548 – sheet 1
ER4-1043 – sheet 1, 3	ER4-1549 – sheet 1

Type approval periodical assessment report for A-14356, DNV GL Gdynia 2016-01-29.

Job Id: **262.1-019051-2**  
Certificate No: **TAA000007V**

### **Tests carried out**

Applicable tests according to DNV Standard for Certification No. 2.4, April 2006.

### **Marking of product**

The products to be marked with:

- manufacturer name
- model name
- serial number

### **Periodical assessment**

The scope of the periodical assessment is to verify that the conditions stipulated for the type are complied with, and that no alterations are made to the product design or choice of systems, software versions, components and/or materials.

The main elements of the assessment are:

- Ensure that type approved documentation is available
- Inspection of factory samples, selected at random from the production line (where practicable)
- Review of production and inspection routines, including test records from product sample tests and control routines
- Ensuring that systems, software versions, components and/or materials used comply with type approved documents and/or referenced system, software, component and material specifications
- Review of possible changes in design of systems, software versions, components, materials and/or performance, and make sure that such changes do not affect the type approval given
- Ensuring traceability between manufacturer's product type marking and the type approval certificate

Periodical assessment is to be performed at least every second year and at renewal of this certificate.

END OF CERTIFICATE