TYPE APPROVAL CERTIFICATE

Certificate no.:
TAA000007V
Revision No:
2

This is to certify:

that the Level Switches

with type designation(s)
ERH-x-06(-K)(/S), ERH-x-07(-K)(/S), ERH-x-16(-K)(/S), ERH-x-16.1(-K)(/S), ERH-xx-20

issued to
APLISENS S.A.
Warszawa, **Poland**

is found to comply with
DNV rules for classification – Ships, offshore units, and high speed and light craft

Application:

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

Location classes:

Type	Temperature	Humidity	Vibration	EMC	Enclosure
ERH-x-06(-K)(/S)	D	B	A	Not relevant	C / IP66
ERH-x-07(-K)(/S)	D	B	A	Not relevant	D / IP68
ERH-x-16(-K)(/S)	D	B	A	Not relevant	C / IP66
ERH-x-16.1(-K)(/S)	D	B	A	Not relevant	D / IP68
ERH-xx-20	C	B	A	Not relevant	D / IP68

Issued at **Høvik** on **2026-02-02**

This Certificate is valid until **2030-12-31**.
DNV local unit: **Gdansk CMC**

Approval Engineer: **Ståle Sneen**

for **DNV**

This document has been digitally signed and will therefore not have handwritten signature

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.

LEGAL DISCLAIMER: Unless otherwise stated in the applicable contract with the holder of this document, or following from mandatory law, the liability of DNV AS, its parent companies and their subsidiaries as well as their officers, directors and employees ("DNV") arising from or in connection with the services rendered for the purpose of the issuance of this document or reliance thereon, whether in contract or in tort (including negligence), shall be limited to direct losses and under any circumstance be limited to USD 300 000.

Product description

Type designations:

Version with supply voltage 230V, 50-60Hz in:
ERH-x-y, covering the following variants:
x = 01, 02, 03, 04, 07, 08, 09
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, 07, 08, 09
y = 06, 06-K, 07, 07-K

Small version:
ERH-x-y/S, covering the following variants:
x = 01, 02, 07, 08, 09
y = 07; 07-K; 06; 06-K; 16; 16-K; 16.1; 16.1-K

Magnetic Level Switches ERH-xx-20.

Place of manufacture

APLISENS S.A.
ul. Krotoszyńska 35
63-400 Ostrów Wielkopolski
Poland

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-E	ER5-1046-C	ER5-1542-E	ER5-1734-B
Drawings:	ER3-1466-, ER3-1468-, ER3-1464-2, ER3-1876-, ER3-1877-, ER3-1878- ER4-1003-, ER4-1004-, ER4-1005-, ER4-1006-	ER3-1446-3, ER3-1876-, ER3-1877-, ER3-1878-, ER4-1042, ER4-1043-, ER4-1044-, ER4-1045-	ER3-1536-, ER4-1540-, ER4-1547-, ER4-1548-, ER4-1549-, ER3-1876-, ER3-1877-, ER3-1878-	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, No6 of the Type Test WE-KDB 04 ATEX352	Test report No. 021/LBS -710/2015, dated 2015-04-02

Test report No. 146/LBS-897/2006
Test Report No. ERH-01-07-Nr 01/12 dated 19-01-2012

Type:	ERH-x-06/S, ERH-x-06-K/S	ERH-x-07/S, ERH-x-07-K/S	ERH-x-16/S, ERH-x-16-K/S, ERH-x-16.1/S, ERH-x-16.1-K/S
Oper./maint. manual:	ER5-1030	ER5-1047	ER5-1543
Tech. Accept. Spec.:	ER5-1029-E	ER5-1046-C	ER5-1542-E
Drawings:	ER4-1829- sheet 3, 4, ER4-1862-, ER4-1863-, ER4-1864-		ER4-1829- sheet 1, 2, ER4-1859-, ER4-1860-, ER4-1861-
	ER3-1870, ER3-1871, ER3-1865		
Test Report:	Same reports as in table above + supplementary reports: BOS/1322/BE/21 dated 2021-03-05 Witnessed report 01/2021 dated 2021-03-03		

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 TAA000007V, DNV Gdynia 2025-11-14.

Tests carried out

Applicable tests according to class guideline DNV-CG-0339, August 2021.

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 after 2 years and after 3.5 years. A renewal assessment will be performed at renewal of the certificate.

END OF CERTIFICATE