



CERTIFICATE NUMBER	21-2165403-PDA
EFFECTIVE DATE	19-Nov-2021
EXPIRY DATE	18-Nov-2026
ABS TECHNICAL OFFICE	Hellenic - Piraeus Eng Department

CERTIFICATE OF Product Design Assessment

This is to certify that a representative of this Bureau did, at the request of

INELTEH D.O.O.

located at

LJUBLJANSKA CESTA 7, RIJEKA, Croatia, HR-51000

assess design plans and data for the below listed product. This assessment is a representation by the Bureau as to the degree of compliance the design exhibits with applicable sections of the Rules. This assessment does not waive unit certification or classification procedures required by ABS Rules for products to be installed in ABS classed vessels or facilities. This certificate, by itself, does not reflect that the product is Type Approved. The scope and limitations of this assessment are detailed on the pages attached to this certificate.

Product: Alarm System, High Level and Overfill

Model: ITHLA

Endorsements:

Tier: 2 - PDA Issued

This Product Design Assessment (PDA) Certificate remains valid until 18/Nov/2026 or until the Rules and/or Standards used in the assessment are revised or until there is a design modification warranting design reassessment (whichever occurs first).

Acceptance of product is limited to the "Intended Service" details prescribed in the certificate and as per applicable Rules and Standards.

This Certificate is valid for installation of the listed product on ABS units which exist or are under contract for construction on or previous to the effective date of the ABS Rules and standards applied at the time of PDA issuance. Use of the Product for non-ABS units is subject to agreement between the manufacturer and intended client.

American Bureau Of Shipping

Ion G. Koumbarelis, Engineer/Consultant

NOTE: This certificate evidences compliance with one or more of the Rules, Guides, standards or other criteria of ABS or a statutory, industrial or manufacturer's standards. It is issued solely for the use of ABS, its committees, its clients or other authorized entities. Any significant changes to the aforementioned product without approval from ABS will result in this certificate becoming null and void. This certificate is governed by ABS Rules 1-1-A3/5.9 Terms and Conditions of the Request for Product Type Approval and Agreement (2010)

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Tier: 2 - PDA Issued

Product: Alarm System, High Level and Overfill

Model: ITHLA

Endorsements:

Intended Service:

High level and overfill alarm system for tanks for Marine and Offshore Installations.

Description:

Alarm system consisted of:

·Electronic unit (cabinet or alarm panel on a console)

·Alarm unit type ITDAC-14B

·Power & input/output unit: ITHLA-26

·Interface unit: ITHLA-INT

·Magnetic level switches type ITHLA-1 and ITHLA-1/C (single point alarm), or

·Magnetic level switches type ITHLA-2 and ITHLA-2/C (double point alarm).

The magnetic level switches are based on one or two float switches principle and the signals are connected to the electronic unit containing the safety barriers for processing. The high level and overfill alarm functions are electrically independent with their own sensors and signal processing.

The maximum number of monitored tanks per alarm unit is sixteen (16).

Rating:

Dual power supply: 230 V AC, 115 V AC or 24 V DC.

IP protection of the alarm unit: IP 44 at front.

IP protection of the electronic unit (cabinet): IP 22.

IP protection of the magnetic level switches (connection head): IP56.

Operating temperature of the magnetic level switches: -25 deg C up to 90 deg C.

Maximum working pressure of the magnetic level switches (for wetted parts): 4 bar.

Service Restriction:

a)Unit certification is not required for this product.

b)If the manufacturer or purchaser request an ABS Certificate for compliance with a specification or standard, the specification or standard, including inspection standards and tolerances, must be clearly defined.

Comments:

a)Application and use are to be in accordance with the manufacturer's instructions.

b)The Manufacturer has provided a declaration about the control of, or the lack of Asbestos in this product.

c)This Design Assessment is covering hardware only. Each application / configuration and external connection is to be submitted for approval by system integrator.

d)Approval of intrinsically safe type circuits is limited to combination with safety barriers type D1031Q covered by the EC-Type Examination certificate DMT 01 ATEX E 042 X and its Supplements.

e)The requirements of SOLAS Regulation V/17 (i.e., EMC testing) for installation on the bridge or in the vicinity of the bridge are not covered by this Design Assessment.

f)Signaling devices which will be installed on the open deck area are not part of the system covered by this Design Assessment.

g)The material of the floating element's sensor is to be compatible with the liquid in the tank.

Notes/Drawing/Documentation:

1. Manufacturer's drawings titled "High Level and Overfill Alarm System Type ITHLA" and "High Level and Overfill Alarm System. Alarm unit type ITDAC-14B, circuit diagram".

2. Koncar Electrical Engineering Institute test report No. 21580181102 dated 18 November 2002 for alarm unit type ITDAC-14B.

3. Koncar Electrical Engineering Institute test report No. 51-09714 dated 2 July 2014 for magnetic level switches type ITHLA-1 and ITHLA-1/C.

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4. Inelteh test report nos. CT-Cold-1403-001 (dated 7 March 2014), CT-Heat-1403-001/A (dated 13 March 2014), ST PowerSupply-1406-001 (dated 16 July 2014), ST-PowerSupply- 3108-002 (dated 31 August 2016), ST-PowerSupply-2709-003 (dated 27 September 2016) and ST-PowerSupply- 2709-004 (dated 27 September 2016) for magnetic level switch model ITHLA-1/C and alarm unit type ITDAC-14B.

5. SIQ test report no. T221-0007/99 dated 1 March 1999 for magnetic level switch model ITHLA-2 (IP56 protection test).

6. SIQ test report no. T221-049/98 dated 9 February 1999 for magnetic level switch model ITHLA-2 (Mechanical resistance test – vibration).

7. Koncar Electrical Engineering Institute test report No. 21583EMC21034 dated 30 June 2021 for alarm unit type ITDAC-14B.

Terms of Validity:

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STANDARDS

ABS Rules:

Part 1 – July 2021 Edition of ABS Rules for Conditions of Classification 1-1-4/7.7, 1-1-A3 and 1-1-A4, which cover the following:

· July 2021 Edition of ABS Rules for Building and Classing Marine Vessel Rules: 4-1-1/7.15, 4-8-3/1.9, 4-8-3/13.3, 4-8-4/27.7, 5C-1-7/21.15.1, 5C-1-7/21.15.2, 5C-1-7/21.15.3, 5C-1-7/21.15.4, 5C-9-15/19.

Part 1 – July 2021 Edition of ABS Rules for Conditions of Classification – Offshore Units and Structures 1-1-4/9.7, 1-1-A2 and 1-1-A3, which cover the following:

· July 2021 Edition of ABS Rules for Building and Classing Mobile Offshore Units: 4-1-1/7.9, 4-3-1/9, 4-3-3/9.3.

National:

NA

International:

NA

Government:

NA

EUMED:

NA

OTHERS:

NA