



CERTIFICATE NUMBER	24-2505349-PDA
EFFECTIVE DATE	07-Feb-2024
EXPIRY DATE	06-Feb-2029
ABS TECHNICAL OFFICE	Hamburg Engineering Department

CERTIFICATE OF Product Design Assessment

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

ENDRESS & HAUSER SE & CO. KG

located at

HAUPTSTR. 1, , D-79689 MAULBURG, Germany

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: Level Limit Switch
Model: Nivotester Failsafe FTL825
Endorsements:
Tier: 2 - PDA Issued

This Product Design Assessment (PDA) Certificate remains valid until 06/Feb/2029 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


Efstratios Maliatsos, 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)

ENDRESS & HAUSER SE & CO. KG

HAUPTSTR. 1

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Email: info@pcm.endress.com

Web: www.endress.com

Tier: 2 - PDA Issued

Product: Level Limit Switch
Model: Nivotester Failsafe FTL825
Endorsements:

Intended Service:
Transmitter power supply unit with intrinsically safe signal circuit for point level switch Liquiphant FailSafe FTL8x.

Description:
The Nivotester supplies direct current to the Liquiphant FailSafe FTL8x point level switch via a two wire cable. At the same time, it analyzes the current values (4 to 20 mA discrete) of the Liquiphant and returns a switching signal. The signal inputs of the Nivotester FTL825 are galvanically isolated from the mains and the output and can be ordered as intrinsically safe inputs.

Rating:
Power Supply: 24 V DC, 230 V AC
Input: 4 to 20 mA signal
Output: 2x switching n/o-contacts
 1x signaling n/c-contacts
 1x fault-signaling c/o-contact
Degree of Protection: IP20
Ambient Operating temperature: -20 to +60 °C (-20 to +50 °C for series mounting without lateral spacing)

Certified Safe Type:
II (1) G [Ex ia Ga] IIC, II (1) D [Ex ia Da] IIIC (FM Approval FM12ATEX0037X),
[Ex ia Ga] IIC, [Ex ia Da] IIIC (IECEX FMG 12.0015X)

Service Restriction:
1. Unit Certification is not required for this product. 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:
1. The Manufacturer has provided a declaration about the control of, or the lack of Asbestos in this product.
2. The device is an associated apparatus and is to be installed outside explosion hazardous areas. Specific conditions of use in accordance with the certified safe type certificate are to be followed.

Notes/Drawing/Documentation:
Drawing No. 960016115, Product structure Nivotester FTL825,
Drawing No. BA01038FEN_0111, Operating Instructions - Nivotester FailSafe FTL825
Drawing No. TI01027FEN_0111, Technical Information - Nivotester FailSafe FTL825

Test Report:
- Test Report No: S124817E1 "Needle flame test method" by Phoenix Test Lab GmbH dated 6 Dec 2012
- Test Report No: U125167E1 "Environmental Simulation – Vibration" by Phoenix Test Lab GmbH dated 24 Jan 2013 to 27 Mar 2013.
- Test Report No: U125167E2 "Environmental Simulation – Vibration, Dry Heat, Damp Heat, Cold, Salt Mist, Insulation Resistance, High Voltage" by Phoenix Test Lab GmbH dated 23 Jan 2013 to 29 Mar 2013.
- Test Report No: E125167E1 "EMC Test 1" by Phoenix Test Lab GmbH dated 18 April 2013.
- Test Report No: E125167E2 "EMC Test 2" by Phoenix Test Lab GmbH dated 18 April 2013.
- Test Report No: 970009363_AK "EMC 6Ghz on FTL825 AC" by Endress+Hauser dated 27 September 2023
- Test Report No: 970009364_AK "EMC 6Ghz on FTL825 DC" by Endress+Hauser dated 27 September 2023

Certificates:

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Tier: 2 - PDA Issued

- FM12ATEX0037X issued by FM Approvals Ltd dated 11 October 2019
- IECEX_FMG_12.0015X, EX certificate issued 10 October 2019
- Certificate of compliance #70006718 issued by CSA Group dated 7 Aug 2014
- Certificate of compliance #3044839 issued by FM Approvals LLC dated 30 May 2012.

Terms of Validity:

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STANDARDS

ABS Rules:

2024 Marine Vessel Rules: 1-1-4/7.7, 1-1-A3, 1-1-A4, 4-8-3/1.7, 4-8-3/1.11.1, 4-8-3/1.17, 4-8-3/13.1, 4-9-9/13.1, 4-9-9/Table 1

2024 Mobile Offshore Units Rules: 1-1-4/9.7, 1-1-A2, 1-1-A3, 4-3-1/11, 4-3-1/15, 4-3-1/17.1

National:

NA

International:

IACS UR E10 Rev.8

Government:

NA

EUMED:

NA

OTHERS:

NA