

CERTIFICATE NUMBER EFFECTIVE DATE EXPIRY DATE ABS TECHNICAL OFFICE 20-2040589-PDA 14-Oct-2020 13-Oct-2025 Hamburg Engineering Department

CERTIFICATE OF Product Design Assessment

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

NORIS AUTOMATION GMBH

located at

MUGGENHOFER STRASSE 95, D-90429 NUERNBERG, 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 Monitoring Instruments

Model Stepping-motor analogue indicator NORIMETER 3. Quadratic types: NIQ3-072, NIQ3-096, NIQ3-144, NIQ31-72, NIQ31-96, NIQ31-144. Round types: NIR3-060, NIR3-080, NIR3-100, NIR3-130.

This Product Design Assessment (PDA) Certificate remains valid until 13/Oct/2025 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 Buneau 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)

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Product: Monitoring Instruments Model: **Stepping-motor analogue indicator NORIMETER 3.** Quadratic types: NIQ3-072, NIQ3-096, NIQ3-144, NIQ31-72, NIQ31-96, NIQ31-144. Round types: NIR3-060, NIR3-080, NIR3-100, NIR3-130.

Intended Service:

Illuminated display on AMS, ACC, ACCU and ABCU classed vessels.

Description:

Analogue instrument

Rating:

Nominal Supply Voltage: 24VDC; Operating temperature: -25 ... +70 °C: Degree of Protection: Front of housing IP66, IP67 and IP68, rear of housing IP30;

Service Restriction:

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:

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

Notes/Drawing/Documentation:

Drawing No. 04, Test specification for the class certification Norimeter 3, Revision: -, Pages: 4

- Drawing No. 1. BE1-1, Revision: -, Pages: 1
- Drawing No. 2. BE1-1G, Revision: -, Pages: 1
- Drawing No. 3. SR47-1, Revision: -, Pages: 1
- Drawing No. 4. BH91-1,, Revision: -, Pages: 1
- Drawing No. 5. Maier Illumiated Pointers, Revision: -, Pages: 2

- Drawing No. 5. Mater Illumiated Pointers, Revision: -, Pages: 2 Drawing No. 6. Phoenix Connector 1786899, #315177, Revision: -, Pages: 5 Drawing No. 7. Phoenix Connector 1835342, #315204, Revision: -, Pages: 5 Drawing No. DB_NIQ3_en_V02.03, Datasheet, Revision: -, Pages: 4 Drawing No. DB_NIR3_en_V02.03, Datasheet, Revision: -, Pages: 4 Drawing No. Flammability of case, Revision: -, Pages: 1 Drawing No. I645E_Installation & User Manual NI3, Revision: -, Pages: 4 Drawing No. NI3 IP Protection Type Tests, PB_E6567-21225502-02, Revision: -, Pages: 12 Drawing No. NI3 Climatic Tests, 21225452, TLV Pheinland, 22 Sep 2014, Pavision: -, Page
- Drawing No. NI3 Climatic Tests, 21225452, TŪV Rheinland, 22-Sep-2014, Revision: -, Pages: 9
- Drawing No. NI3 Corrosion Test According SL1, EB TR 1403240-B 141203, TUV Rehineland, Revision: -, Pages: 5
- Drawing No. NI3 Corrosion Test According SL4-5, EB TR 1403240-C 141124, Revision: -, Pages: 4
- Drawing No. NI3 Electromagnetic Compability Tests, 21218854, TUV Rheinland, 14.01.2015, Revision: -, Pages: 88 Drawing No. NI3 Environmental Simulation, E5.214-21152593, TUV Rheinland, 29-Jul-2010, Revision: -, Pages: 20
- Drawing No. TTBmp 14-002 Norimeter 3 KE908 Klimatest, Revision: -, Pages: 14
- Drawing No. TTBmp 14-002 Norimeter 3 KE908 1, Norimeter Salt Mist Test Degree 1, Revision: -, Pages: 8
- Drawing No. TTBmp 14-002 Norimeter 3 KE908 4 5, Norimeter Salt Mist Test Degree 4 5, Revision: -, Pages: 7 Drawing No. Table of contents, Table of contents, Revision: -, Pages: 9
- Drawing No. VTBmp 10-001NIR-060 NIK3-096 NIQ-144 eng, VTBmp 10-001NIR-060 NIK3-096 NIQ-144 eng, Revision: -, Pages: 9
- -- Revalidation 2020 ------
- Drawing No. 3, DB-NIQ31-EN V01.05, Revision: .05, Pages: 1

Drawing No. 6, DB-NIR3 NIQ3-EN_V01.06, Revision: .06, Pages: 1 Drawing No. 7, ECL-EMC-TR-17-005-V01.00_Noris_Anzeiger + Sensoren_CE, Test Report, Electromagnetic Field 6GHz, Bureau Veritas, 19.01.2017, Revision: 01, Pages: 1

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> Drawing No. 8, HG-NIQ3-072-1_c, Revision: _c, Pages: 1 Drawing No. 9, HG-NIQ3-096-1_c, Revision: _c, Pages: 1 Drawing No. 10, HG-NIQ3-144-1_d, Drawing, Revision: _d, Pages: 1 Drawing No. 11, HG-NIQ31-072-1_d, Drawing, Revision: _d, Pages: 1 Drawing No. 12, HG-NIQ31-096-1_d, Drawing, Revision: _d, Pages: 1 Drawing No. 13, HG-NIQ31-144-1_b, Drawing, Revision: _d, Pages: 1 Drawing No. 13, HG-NIQ31-144-1_b, Drawing, Revision: _c, Pages: 1 Drawing No. 14, HG-NIR3-060-1_c, Drawing, Revision: _c, Pages: 1 Drawing No. 15, HG-NIR3-080-1_c, Drawing, Revision: _c, Pages: 1 Drawing No. 16, HG-NIR3-100-1_c, Drawing, Revision: _c, Pages: 1 Drawing No. 17, HG-NIR3-100-1_c, Drawing, Revision: _c, Pages: 1 Drawing No. 18, NAN-KD-0020-1-EN_V01.02_NIR3, NIQ3 Quick User Guide, Revision: .02, Pages: 1 Drawing No. 19, NAN-KD-0020-EN_V01.05_NIQ3, NIR3, NIQ31 Instruction Manual, Revision: .05, Pages: 1 Drawing No. 20, Order Code NI3, Revision: 01, Pages: 1 Drawing No. 23, ECL-EMC-TR-20-102-V01.00_NORIS Automation GmbH_Anzeiger & Sensoren_CE, Test Report, Radiated Emissions 6GHz, Bureaue Veritas, 04.09.2020, Revision: 01, Pages: 1

Terms of Validity:

This Product Design Assessment (PDA) Certificate remains valid until 13/Oct/2025 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).

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STANDARDS

ABS Rules:

2020 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, 4-9-9/13.1, 4-9-9/Table 1 2020 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

INA

International: NA

Government: NA

EUMED: NA

OTHERS:

NA