



CERTIFICATE NUMBER	22-2320849-PDA
EFFECTIVE DATE	10-Jan-2023
EXPIRY DATE	09-Jan-2028
ABS TECHNICAL OFFICE	Gdynia 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

F-BARNEWITZ-STR. 10, , D-18119 ROSTOCK, 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: Engine Order Telegraph

Model: NORISTAR-EOT

Endorsements:

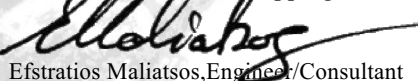
Tier: 2 - PDA Issued

This Product Design Assessment (PDA) Certificate remains valid until 09/Jan/2028 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)

NORIS AUTOMATION GMBH

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Web: www.noris-group.com

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Product: Engine Order Telegraph

Model: NORISTAR-EOT

Endorsements:

Intended Service:

This telegraph system is applicable as an emergency communication system between wheelhouse and engine room.

Description:

Each EOT module is equipped with 11 command push buttons. The EOT is mounted in a panel cut-out and connected to each other via CANbus. By pressing a command push button, the connected EOT panels indicate the command visually and acoustically.

Rating:

Power Supply: 24 V DC

Operating Temperature: -25° C up to 70° C

Degree of protection: IP54 (front), IP20 (rear)

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. 092.009.03.100.D, NORISTAR EOT-BF - Master FWD Oriented, Revision: D, Pages: 1

Drawing No. 092.009.03.103.D, NORISTAR EOT-BA - Master AFT Oriented, Revision: D, Pages: 1

Drawing No. 092.009.03.104.D, NORISTAR EOT-ER - Slave, Revision: D, Pages: 1

Drawing No. 092.009.03.401.D, NORISTAR EOT-BF - Master FWD Oriented - Explosionsdarstellung, Revision: D, Pages: 1

Drawing No. 092.009.03.402.D, NORISTAR EOT-BA - Master AFT Oriented - Explosionsdarstellung, Revision: D, Pages: 1

Drawing No. 092.009.03.403.D, NORISTAR EOT-ER - Slave - Explosionsdarstellung, Revision: D, Pages: 1

Drawing No. 092.009.03.501.D, NORISTAR EOT-BF - Master FWD Oriented - Parts List, Revision: D, Pages: 1

Drawing No. 092.009.03.502.D, NORISTAR EOT-BA - Master AFT Oriented - Parts List, Revision: D, Pages: 1

Drawing No. 092.009.03.503.D, NORISTAR EOT-ER - Slave - Parts List, Revision: D, Pages: 1

Drawing No. 092.009.03.101, NORISTAR EOT - Cut Out, Revision: -, Pages: 1

Drawing No. 204792b03, AMETEK CTS Europe GmbH EMC Test Report D/20/4792/03 dated 29/SEP/2021, Revision: -, Pages: 14

Drawing No. 113819b01en, NORISTAR EOT - TESEQ GmbH EMC Test Report dated 29/SEP/2011, Revision: 01, Pages: 43

Drawing No. 203-12, TREO - Labor fur Umweltsimulation GmbH IP - Test Report 203-12 dated 10/DEC/2012, Revision: 1.0, Pages: 11

Drawing No. ---, NNEs Type Approval Procedure High-Voltage - Test Scans, Revision: -, Pages: 7

Drawing No. 3044390_030_pb01sw, TUV Rheinland Flammability Test dated 27/FEB/2012, Revision: 01, Pages: 6

Drawing No. PB_E5664_C, TUV Rheinland Vibration Test Reports dated 12/DEC/2011, Revision: C, Pages: 20

Drawing No. TTBMP11-001_NAR, NORISTAR-EOT Climate Test Reports dated 23/NOV/2011, Revision: 001, Pages: 53

Drawing No. Correspondence, Online PDA Application NORISTAR-EOT, Revision: -, Pages: 4

Drawing No. DB NORISTAR-EOT-en_V03, NORISTAR EOT - Data Sheet, Revision: V03, Pages: 6

Drawing No. NAR-KD-0102-1-en_V123, NORISTAR-EOT - User Manual, Revision: 1.23, Pages: 41

Drawing No. NAR-KD-0102-2-en_V110, NORISTAR-EOT - Quick User Guide, Revision: 1.10, Pages: 20

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Drawing No. NAR-PB-0102-1-en_V105, NORISTAR EOT - Product Test Report, Revision: 1.05, Pages: 65

Drawing No. NAR-PB-0102-2-en_V101, NORISTAR-EOT - NORIS Automation GmbH Test Report 6GHz, Revision: 1.01, Pages: 20

Drawing No. NAR-PD-0102-1-en_V105, NORISTAR EOT - Software Description, Revision: 1.05, Pages: 122

Drawing No. NAR-PD-0102-2-de_V103, NORISTAR-EOT - Hardware Description, Revision: 1.03, Pages: 28

Drawing No. NAR-PD-0102-21-en_V101, NORISTAR-EOT - Overview Approval - Renewal ABS, Revision: 1.01, Pages: 1

Drawing No. NAR-PD-0102-3-en_V107, NORISTAR-EOT - Revision Outline, Revision: 1.07, Pages: 9

Drawing No. NAR-PD-0102-5-en_V100, NORISTAR-EOT - Functional Process Diagram - Main Program, Revision: 1.00, Pages: 1

Drawing No. NAR-PD-0102-6-en_V100, NORISTAR-EOT - Block Diagram System Devices, Revision: 1.00, Pages: 1

Drawing No. NAR-PD-0102-10-en_V100, NORISTAR-EOT - Suppliers Overview, Revision: 1.00, Pages: 4

Drawing No. DE011904-1_EN, BV ISO 9001:2015 Certificate issued 25/AUG/2021, Revision: -, Pages: 1

Drawing No. SMS.W.II./51611/02/C.0, NORIS Recognition for BV Mode II Scheme, Revision: -, Pages: 2

Drawing No. SLP_i10, Circuit Diagram, Revision: 10, Pages: 3

Drawing No. STL_10095206_i09, NORISTAR-EOT - LPC236x - i09, Revision: 09, Pages: 8

Drawing No. STL_10095448_i10, NORISTAR-EOT - LPC236x - i10, Revision: 10, Pages: 8

Drawing No. STL_10100739_i08, NORISTAR-EOT - PLC236x - i08, Revision: 08, Pages: 8

Drawing No. FMEA_NORISTAR-EOT_v005b, NORISTAR EOT FMEA, Revision: 005, Pages: 11

Terms of Validity:

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STANDARDS

ABS Rules:

2022 Rules for Conditions of Classification: 1-1-4/7.7, 1-1-A3 and A4, which covers the following:

2022 Rules for Building and Classing Marine Vessels: 4-8-2/11.5.2, 4-8-3/1.7, 4-8-3/1.11.1, 4-8-3/1.17, 4-9-6/7, 4-9-9/3, 4-9-9/7, 4-9-9/13.1

National:

NA

International:

IACS UR E10, Rev. 7: 2018

Government:

NA

EUMED:

NA

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OTHERS:

NA