Certificate No: HMB27973-AC007

Type Approval Certificate



[Engine Telegraph System]

Initial Approval 8 May 2024

Manufacturer NORIS Automation GmbH

Friedrich-Barnewitz Strasse 10, D-18119 Rostock, Germany

Product Description Type: NORISTAR-E0T

" See Appendix 1"

Approval Condition "See Appendix 1"

THIS IS TO CERTIFY that the above-mentioned product has been approved in accordance with the relevant requirement of this Society's Rules and / or of the recognized standards as follows.

Pt. 6, Ch. 2, Art. 301 of the Rules for Classification of Steel Ships.

This Certificate is valid until 7 May 2029 Issued at Busan, Korea on 8 May 2024



This certificate is signed electronically in accordance with IMO FAL.5/Circ.39/Rev.2. Validation and authentication of the certificate can be confirmed from "http://e-cert.krs.co.kr" by using the tracking No(ME24022654115) and certificate No.(HMB27973-AC007).



KOREAN REGISTER

General Manager of Marine & Ocean Equipment Team

Note: 1. This certificate will be valid subject to complying with the approval conditions described on the certificate and/or on the Rules of this Society.

^{2.} This certificate will be invalid from the expiry date aforementioned unless the extension or renewal has been granted to the applicant or the manufacturer.

^{3.} Any significant modifications or changes in design or construction to the above product without approval from this Society will render this certificate invalid.

^{4.} Should the specified rules, regulations or standards be amended during the validity of this certificate, the product is to be re-approved by this Society in accordance with the requirements as amended.

Certificate No: HMB27973-AC007 Appendix 1

Product Description and/or Approval Condition

Date of Issue: 8 May 2024

A. Product Description

1. Product Specification

Engine order telegraph is an emergency communication system between wheelhouse and engine room to transmit basic commands.

- Types

: NORISTAR EOT-BA (Bridge Astern)

NORISTAR EOT-BF (Bridge Forward)

NORISTAR EOT-ER (Engine Room / Engine Control Room)

- Power Supply : - Number of Modules : 24V DC up to 12 System Connection : CAN-BUS VDR Connection RS-422/485 Inputs

2x digital input3x relay, 3x relay change over - Outputs

2. Approved Drawings and Documents

- 1) Drawing
 - 092. 009. 03. 100. D Rev. D, 092. 009. 03. 101 Rev. A
 - 092. 009. 03. 103. D Rev. D, 092. 009. 03. 104. D Rev. D
 - 092.009.03.401.D Rev. D, 092.009.03.402.D Rev. D 092.009.03.403.D Rev. D, 092.009.03.501.D. en Rev. D
 - 092. 009. 03. 502. D. en Rev. D, 092. 009. 03. 503. D. en Rev. D
- 2) Manual
 - NAR-KD-0102-1-en dated 2022-04-28
 - NAR-KD-0102-2-en dated 2022-01-03

3. Test Reports, etc.

- 1) Performance Test Report
- NAR-PB-0102-1-en dated 2012-02-27
- 2) EMC Test Report D/11/3819/01 EN dated 2011-09-30, D/20/4792/03 dated 2021-09-29
- 3) Environmental Test Report
 - TBMP11-001_NAR dated 2011-11-23, 21173861 dated 2011-12-13
 - NNES Type Approval Procedure High Voltage dated 2012-09-26
 - 203-12 dated 2012-12-10

B. Approval Condition

1. Application & Limitation

- 1) This approval is granted on the basis of the test reports and the approved documentation.
- Degree of protection shall be complied with Rule Pt. 6 Ch. 1 Sec. 2 201. 2. (5).
- 3) The manufacturer is to inform this Society of all kinds of revisions of the equipment including the major changes of software. If the changes are recognized to affect the functionality of the approved equipment, type test to confirm the reliability of the revised equipment may be performed in the presence of our surveyor.

2. Individual Product Cert. and Drawing Approval Requirement

1) Individual Product Certification is not required.

1) The product or packing is to be marked with the manufacturer's name and type designation on a suitable position.

4. Others

1) Test condition

Test	Condition	Remark
EMC	All locations including the bridge and deck zone	
Temperature	−25 ~ +70°C	
Vibration	Acceleration ±4g	
Degree of Protection	IP54	Front Only

< End of Certificate >