



Marine & Offshore

Certificate number: 29151/B0 BV

File number: AP4370

Product code: 4201H

This certificate is not valid when presented without the full attached schedule composed of 7 sections

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TYPE APPROVAL CERTIFICATE

This certificate is issued to

NORIS Automation GmbH

Rostock - GERMANY

for the type of product

ENGINE TELEGRAPHS

NORISTAR EOT-...

Requirements:

Bureau Veritas Rules for the Classification of Steel Ships

EC Code: 33B

This certificate is issued to attest that Bureau Veritas Marine & Offshore did undertake the relevant approval procedures for the product identified above which was found to comply with the relevant requirements mentioned above.

This certificate will expire on: 21 Jun 2023

For Bureau Veritas Marine & Offshore,

At BV HAMBURG, on 21 Jun 2018,

Dirk Hoepfner



This certificate remains valid until the date stated above, unless cancelled or revoked, provided the conditions indicated in the subsequent page(s) are complied with and the product remains satisfactory in service. This certificate will not be valid if the applicant makes any changes or modifications to the approved product, which have not been notified to, and agreed in writing with Bureau Veritas Marine & Offshore. Should the specified regulations or standards be amended during the validity of this certificate, the product(s) is/are to be re-approved prior to it/they being placed on board vessels to which the amended regulations or standards apply. This certificate is issued within the scope of the General Conditions of Bureau Veritas Marine & Offshore available on the internet site www.veristar.com. Any Person not a party to the contract pursuant to which this document is delivered may not assert a claim against Bureau Veritas Marine & Offshore for any liability arising out of errors or omissions which may be contained in said document, or for errors of judgement, fault or negligence committed by personnel of the Society or of its Agents in establishment or issuance of this document, and in connection with any activities for which it may provide.

The electronic version is available at: <http://www.veristarm.com/veristarnb/jsp/viewPublicPdfTypepec.jsp?id=myggtp30g>

BV Mod. Ad.E 530 June 2017

This certificate consists of 3 page(s)

THE SCHEDULE OF APPROVAL

1. PRODUCT DESCRIPTION:

The **NORISTAR EOT-...** panels are engine order telegraphs for the communication between wheelhouse and engine room.

Main Characteristics:

Modul types: BFWD (Bridge Forward)
 BAFT (Bridge Astern)
 ER (Engine room/ Engine control room)

Power supply: 24V DC

Bus connection: 1x CANbus
 1x RS232
 1x RS422, RS485 (NMEA-protocol)

Inputs: 2x digital input

Outputs: 3x relay
 3x relay change over

Number of modules: up to 12

Hardware version: i05

Software version: 146

2. DOCUMENTS AND DRAWINGS:

- 092.009.03.100.B dated 26.07.2011; 092.009.03.101 dated 01.06.2011; 092.009.03.102 dated 08.09.2011;
- 092.009.03.20x.A dated 26.07.2011; 092.009.03.400.en dated 09.08.2011; 092.009.03.500.en dated 09.06.2011;
- 81027148 Rev. 10 dated 11.04.11; DB-NORISTAR EOT-en V01.01 dated 08/2010
- STL_10100739 index 07, STL_10095448 index 09 dated 30.06.11; STL_10995206 index 08 dated 11.04.11;
- NAR-KD-0102-1-en V. 1.10 dated 13/11/11; NAR-PD-0102-3-en V. 1.01 dated 03/01/12;

3. TEST REPORTS:

NORIS Automation GmbH:

- TTBMPI1-001_NAR V.01 dated 23.11.2011
- FMEA NORISTAR-EOT Rev. d dated 18.08.2011
- NAR-PB-0102-1-en V 1.03 dated 2011-10-23

Teseq GmbH:

- D/11/3819/01 EN dated 2011 September 29

TÜV Rheinland LGA Products GmbH:

- 3044390 030 dated 27.02.2012
- E 5.664 Part C dated Dec.13, 2011

4. APPLICATION/LIMITATION:

- 4.1 - Bureau Veritas Rules and Regulations for the Classification of Steel Ships.
- 4.2 - Approval valid for ships intended to be granted with the following additional class notations: **AUT-UMS, AUT-CCS, AUT-PORT and AUT-IMS.**
- 4.3 - Bureau Veritas Environmental Category, **EC Code: 33B**
- 4.4 - Documents relating to each application are to be submitted to the Society's examination prior fitting on board.
- 4.5 - The equipment, once installed on board ship, is to be tested in accordance with the above referred regulations under the supervision of a Society's Surveyor.

5. PRODUCTION SURVEY REQUIREMENTS:

- 5.1 - The above mentioned products are to be supplied by **NORIS Automation GmbH** in compliance with the type described in this certificate.
- 5.2 - This type of product is within the category HBV of Bureau Veritas Rule Note NR320 and as such does not require a BV product certificate.
- 5.3 - **NORIS Automation GmbH** has to make the necessary arrangements to have its works recognised by Bureau Veritas in compliance with the requirements of NR320 for HBV products.

**NORIS Automation GmbH
 Friedrich-Barnewitz-Str. 10
 18119 Rostock
 GERMANY**

- 5.4 - Each equipment is to be supplied with manual(s) for installation, use and maintenance.

6. MARKING OF PRODUCT:

- Maker's name or trademark.
- Equipment type or model identification.
- Date of manufacture and/or serial number.
- The title and version of installed software system shall be marked on the equipment.

7. OTHERS:

7.1 - It is the responsibility of **NORIS Automation GmbH** to inform shipbuilders or their sub-contractors of the proper methods of fitting, use and general maintenance of the approved equipment and the conditions of this approval.

7.2 - This certificate supersedes the Type Approval Certificate N° 29151/A0 BV issued on 14 Nov 20112 by the Society.

***** END OF CERTIFICATE *****