



Type Approval Certificate

This is to certify that the undernoted product(s) has/have been tested with satisfactory results in accordance with the relevant requirements of the Lloyd's Register Type Approval System.

Manufacturer	NORIS Automation GmbH
Address	Friedrich-Barnewitz-Strasse 10, Rostock, 18109, Germany
Type	Telephone Systems
Description	Engine Order Telegraph for emergency communication between wheelhouse and engine room to transmit basic commands.
Trade Name	NORISTAR EOT
Application	Marine applications for use in environmental categories ENV1, ENV2, ENV3 as defined in Lloyd's Register's Type Approval System, Test Specification Number 1 – 2002.
Specified Standard	Manufacturer's specification IACS unified requirements E10 (Rev.8 Feb 2021)
Ratings	Power Supply: UNom = 24 VDC, range 18 ... 32 VDC Current consumption: < 300mA / 24 VDC System connection: 1x CAN bus Voyage Data Recorder connection: 1x RS-422/485, galvanic isolated Connection for programming/analysis: 1x RS-232 Digital inputs: 2x (X10/In1 and X10/In2), galvanic isolated Digital outputs: 3x relay change over (X20/Q1, X20/Q2 and X20/Q3)

Thorsten Wolff

Senior Specialist to Lloyd's Register EMEA
A member of the Lloyd's Register group

71 Fenchurch Street, London, EC3M 4BS, United Kingdom

Lloyd's Register Group Limited, its affiliates and subsidiaries and their respective officers, employees or agents are, individually and collectively, referred to in this clause as 'Lloyd's Register'. Lloyd's Register assumes no responsibility and shall not be liable to any person for any loss, damage or expense caused by reliance on the information or advice in this document or howsoever provided, unless that person has signed a contract with the relevant Lloyd's Register entity for the provision of this information or advice and in that case any responsibility or liability is exclusively on the terms and conditions set out in that contract.



Type Approval Certificate

3x relay normal open (X30/Q1, X30/Q2 and X30/Q3)
Firmware 1.05.00

Additional Tests

Low temperature test: -25°C/ 16 hours
Vibration test: 4g
Mechanical shock test: half sine, 15g, 11ms
Number of load planes: 6 ($\pm X$, $\pm Y$ and $\pm Z$)
Number of shocks per load plane: 3 (in total 18)
Needle Flame Test according IEC 60695-11-5:2016

Other Conditions

Final functional arrangements are to comply with appropriate Lloyd's Register Rules and will be subject of the Plan Approval process, if applicable.

This certificate is not valid for equipment, the design, ratings or operating parameters of which have been varied from the specimen tested. The manufacturer should notify Lloyd's Register EMEA of any modification or changes to the equipment in order to obtain a valid Certificate.

Previous Version: 12/20036 (E1)

The Design Appraisal Document HPC1762115-22/TW and its supplementary Type Approval Terms and Conditions form part of this Certificate.