



Marine & Offshore

Certificate number: 72552/A1 BV

File number: MPA2202822

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*  
**MARINELEC TECHNOLOGIES**  
 QUIMPER - FRANCE

*for the type of product*  
**ENGINE TELEGRAPHS**  
 ORION V3

**Requirements:**

Bureau Veritas Rules for the Classification of Steel Ships/Naval Ships.

EC Code: 31

*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: 01 Sep 2027**

**For Bureau Veritas Marine & Offshore,**  
 At BV SAINT-NAZAIRE, on 08 Feb 2023,  
 Francois LOPINOT

***This certificate was created electronically and is valid without signature***



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](http://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=ie5th92ev0>

BV Mod. Ad.E 530 June 2017

This certificate consists of 3 page(s)

## THE SCHEDULE OF APPROVAL

### 1. PRODUCT DESCRIPTION:

**Orion V3** is an engine telegraph that allows wheelhouse personnel to send instructions (orders) to the control unit(s) in the engine room.

#### Main characteristics:

Power supply	: 24 Vdc, -25% +30%
Consumption	: 25mA
Index of protection	: IP 44
Operating temperature	: 0°C to 55°C
Software Version	: ORION_V3 1.0

### 2. DOCUMENTS AND DRAWINGS:

#### Marinelec Technologies:

- Orion V3 Datasheet No. ORION V3 DS FR Rev.0, dated 24-04-2022.
- Manuel D'installation & D'utilisation, No. ORION\_V3\_MANUEL\_FR\_Rev.1.0, dated 23-06-2022.
- ORION\_V3 Board Layout Rev.1.0, dated 21-06-2022.
- ORION\_V3 Electronic diagram Rev.2.0, dated 26-04-2022.
- ORION\_V3 Diagram Rev.0, dated 23-08-2021.
- Software Quality Plan No. ORION\_V3\_SW\_QUALITY\_PLAN\_REV0, dated 22-06-2022.

### 3. TEST REPORTS:

#### KENTA:

- Test Report No. 204 317 Ed.2, dated 16-08-2022.

#### LCIE:

- Test Report No. 120772-641221, dated 18-06-2013.

### 4. APPLICATION / LIMITATION:

4.1 - According to BUREAU VERITAS Rules for the Classification of Steel Ships/Naval Ships.

4.2 - Approval also valid for ships to be granted with the notations: **AUT-UMS, AUT-CCS, AUT-PORT, AUT-IMS, AUT-QAS** and **AUT-IAS**.

4.3 - BUREAU VERITAS Environmental Category, **EC Code: 31**.

4.4 - The equipment fulfils the EMC requirements for installation in the bridge and deck zone.

4.5 - Each application and configuration is to be submitted to the Society's examination prior to fitting on board.

4.6 - Only Hardware and Firmware / Software successfully tested together in compliance with the regulations as referred to in cover page, according to the declaration of the manufacturer are covered by this certificate.

4.7 - Any modification of the hardware, firmware or software having an impact on the product performance or functionality has to be validated with type testing.

4.8 - In accordance with IACS UR E22 and as applicable to programmable devices for computer based systems of Category II or III, for each ship application:

- Ship specific documentation is to be submitted including software documentation and categorization of the computer based system.

- Inspection and testing before installation onboard is to be performed under the surveillance of the Society.

4.9 - Equipment covered by this Type Approval certificate has been tested according to requirements of IACS UR E10 rev8.

### 5. PRODUCTION SURVEY REQUIREMENTS:

5.1 - The **Orion V3 telegraph** are to be supplied by **MARINELEC TECHNOLOGIES** 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.

5.3 - **MARINELEC TECHNOLOGIES** has to make the necessary arrangements to have its works recognised by Bureau Veritas in compliance with the requirements of NR320 for HBV products.

5.4 - For information, **MARINELEC TECHNOLOGIES** has declared to Bureau Veritas the following production site(s):

**MARINELEC TECHNOLOGIES**  
**12 Rue Alfred Le Bars**  
**29000 Quimper**  
**FRANCE**

### 6. MARKING OF PRODUCT:

- Trade name.
- Date of manufacture and serial number.
- Equipment type or model identification under which it was type-tested

**7. OTHERS:**

7.1 - It is **MARINELEC Technologies**'s responsibility 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 No. 72552/A0 BV issued on 01 Sep 2022 by the Society.

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