



Marine & Offshore

Certificate number: 69651/A1 BV

File number: MPA2105601

Product code: 2617H

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

SIGNALING AND CONTROL DEVICES

SIRIUS_CPL

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. 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.

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BV Mod. Ad.E 530 June 2017

This certificate consists of 3 page(s)

THE SCHEDULE OF APPROVAL

1. PRODUCT DESCRIPTION :

- Product model or type designation:

SIRIUS_CPL

- Product description:

SIRIUS is an efficient and stylish solution to transmit visual alarms in any noisy location of the ship.

1.1 - Approval range:

| Item | Description |
|--------------------|--------------------------------|
| SIRIUS_CPL_M | Master module |
| SIRIUS_CPL_BJ_CTRL | Slave module * |
| SIRIUS_CPL_6V | Light column - 6 pictograms ** |
| SIRIUS_CPL_9V | Light column - 9 pictograms |

* - stand alone operation possible

** - ECR compatible

1.2 - Main Characteristics:

| | |
|-------------|--|
| Column unit | Materials : Polycarbonate (tube) Available in 2 version: 6/9 pictograms Operation temperature 0 to 70°C Enclosure: IP 55 Power supply : 24VDC |
| Slave Unit | Max. slave unit per Master unit : 15 Max. column units per Slave: 2 AUX0/1 output: 4 x combined Siren-Flash units - 230 VAC DISP output: 2 x columns - 24 VDC Enclosure: IP 55 Power supply : 230VAC, 50/60Hz |

1.3 - Software Version:

SIRIUS_CPL_M : REV_2

SIRIUS_CPL_BJ_CTRL: REV_1

SIRIUS_CPL_xV: REV_0_4

2. DOCUMENTS AND DRAWINGS :

MARINELEC:

- SIRIUS_CPL Light Column for Alarm signaling Datasheet, No. SIRIUS_CPL_DS FR Rev.2, dated 23-06-2022.
- SIRIUS_CPL Light Column Schematic Diagram, No. SIRIUS_CPL_DIAGRAM, Rev.1 dated 01-02-2022.
- SIRIUS_CPL Light Column Engine Call System Programming Guide, Rev.0.5 dated 17-02-2022.
- SIRIUS_CPL Software Quality Plan, Rev.0 dated 21-01-2022.
- SIRIUS Slave PCB Board layout, No.SIRIUS_SLAVE_REV1_Board layout, dated 18-02-2022.
- SIRIUS Slave electronic diagram, No. SIRIUS_SLAVE_REV1_Electronic diagram, dated 18-02-2022.
- SIRIUS_ENVIRONMENTAL TESTS_SPECIFICATION_FR REV0, dated 06-09-2021.
- SIRIUS_CPL_PROCEDURE_VALIDATION_FONCTIONNELLE_REV0.3, dated 31-01-2022.

3. TEST REPORTS :

KENTA:

- Test Report No. 204-303, dated 14-01-2022.
- SIRIUS_CPL_PROCEDURE_VALIDATION_FONCTIONNELLE_REV0.3 Test, witnessed by BV surveyor on 17-03-2022.

4. APPLICATION / LIMITATION :

- 4.1 - BUREAU VERITAS Rules for the Classification of Steel Ships/Naval Ships.
4.2 - Approval valid for ships intended to be granted with the following additional class 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 General Power Distribution Zones.
4.5 - The equipment is not to be fitted in hazardous areas.
4.6 - The master module SIRIUS_CPL_M is to be installed in a cabinet.
4.7 - The installation shall comply with the Manufacturer's recommendation described in documentations.
4.8 - 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.
4.9 - Any modification of the hardware, firmware or software having an impact on the product performance or functionality has to be validated with type testing.
4.10 - 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 SIRIUS_CPL 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 and as such does not require a BV product certificate.
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
13 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 :

- 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. 69651/A0 BV issued on 01 Sep 2022 by the Society.

*** END OF CERTIFICATE ***