



Marine & Offshore
Division

Certificate number: 41413/A0 BV

File number: AP 4678

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

STATUS AND ALARMS LIGHT FOR DYNAMIC POSITIONING
UMAS

Requirements:

Bureau Veritas Rules for the Classification of Steel Ships.

EC Code: 31

This certificate is issued to attest that BUREAU VERITAS 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: 19 Apr 2021

For BUREAU VERITAS,

At BV NANTES, on 19 Apr 2016,

Joel Gaurin



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. 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 Division 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 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 SCHEDULE OF APPROVAL

1. PRODUCT DESCRIPTION:

- Product model or type designation :
UMAS

- Product description:
Control and monitoring system for underwater equipments

1.1 - Technical Specifications:

| | | |
|-----------|---|--|
| CENTIUM | 7" Touch Screen panel | - Power supply: 24VDC (from PRIDGE cabinet) |
| PRIDGE | Main cabinet + I/O & Wireless interface | - Power supply: 230VAC from ship's DP system UPS - Interfaces: PLC (CLUMAS), I/O (Auto mode + external light column), RS232 (PRINTER), ETHERNET (CENTIUM) |
| CLUMAS | Light column (PLC communication) | - Power supply: 230VAC (from PRIDGE cabinet) - IP42 |
| CLUMAS_WL | Light column (Wireless communication) | - Power supply: 230VAC (from PRIDGE cabinet) - IP42 |
| EMAP | Equipment Managing Panel 4" | - Power supply: 24VDC (from CLUMAS) - Interfaces: RS485 (CLUMAS), USB |

1.2 - Firmware Revision:

CENTIUM : 1.7
PRIDGE : 1.2
CLUMAS : 0.6
EMAP : 1.0

2. DOCUMENTS AND DRAWINGS:

MARINELEC

- UMAS Installation & Maintenance Guide V2.1, dated Dec 18, 2015.
- UMAS Technical Brochure Ref.: UMAS 2014-01 TB, dated 2014
- UMAS User Guide V2.1 Ref.: UMAS 2014-01 TB, dated Dec 2015
- UMAS Wiring Diagram Ref.: UMAS CAB REV.2, dated Oct 13, 2015
- UMAS Test Description Ref.: UMAS_TESTS DESCRIPTION REV1, dated Feb 2015
- UMAS Test Program Ref.: UMAS_TESTS PROGRAM REV1, dated Feb 2015
- Functional Test Ref.: UMAS_FUNCTIONAL_TESTS_REPORT 01_REV0, dated Dec 7, 2015
- Functional Test Ref.: UMAS_FUNCTIONAL_TESTS_REV1.1 according to IMCA M 103 Rev. 1, dated Dec 7, 2015

3. TEST REPORTS:

KENTA :

- EMC & Environmental Test Reports No. 204 0178 Ed 1.0 dated July 2015.

MARINELEC :

- Functional Test Reports No. UMAS_FUNCTIONAL_TESTS_REPORT 01, dated Jan 4, 2016 - Satisfactory witnessed by Bureau Veritas on Jan 4, 2016.

4. APPLICATION / LIMITATION:

- 4.1 - BUREAU VERITAS Rules for the Classification of Steel Ships, IMCA M 103 Rev. 1 & IMCA M220 (11/2012)
- 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.**
- 4.4 - BUREAU VERITAS Environmental Category, **EC Code: 31**
- 4.5 - The equipment fulfils the EMC requirements for installation on the Bridge and Deck Zone.
- 4.6 - The equipment is not to be fitted in hazardous areas.
- 4.7 - Only Hardware and Software successfully tested together in compliance with the regulations as referred to in page one, according to the declaration of the manufacturer are covered by this certificate.

5. PRODUCTION SURVEY REQUIREMENTS:

5.1 - The above products 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:

MARINELEC TECHNOLOGIES
13 Rue Alfred Le Bars
29000 QUIMPER - FRANCE

6. MARKING OF PRODUCT:

- Maker's name or trade mark
- Serial number of the units
- Equipment type number or model identification under which it was type-tested

7. OTHERS:

This approval is given on the understanding that the Society reserves the right to require check tests to be carried out on the units at any time and that: **MARINELEC TECHNOLOGIES - 13 Rue Alfred Le Bars - 29000 QUIMPER - FRANCE** will accept full responsibility for informing shipbuilders, shipowners or their sub-contractors of the proper methods of use and general maintenance of the units and the conditions of this approval.

*** END OF CERTIFICATE ***