



Marine & Offshore
Division

Certificate number: 43639/A0 EC

File number: AP 4655

Annex A1 Item number: A.1/3.51a

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

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Notified Body 0062 - MARINE EQUIPMENT DIRECTIVE 96/98/EC

EC TYPE EXAMINATION CERTIFICATE

as per Module B of European Union Council Directive 96/98/EC on marine equipment
as amended by Commission Directive 2014/93/EU

This certificate is issued to

MARINELEC TECHNOLOGIES

Quimper - FRANCE

for the type of product

**FIXED FIRE DETECTION AND FIRE ALARM SYSTEMS COMPONENTS [...] -
CONTROL AND INDICATING EQUIPMENT**

Marine fire detection panel CARINA (conventional)

Requirements:

SOLAS 74 convention as amended, Regulations II-2/7, X/3, Reg. II-2/7.2.2, Reg. II-2/7.4, Reg. II 2/7.4.1
IMO Res. MSC.36(63) -(1994 HSC Code)- as amended, 7; IMO Res. MSC.97(73) -(2000 HSC Code)- as amended, 7;
IMO Res. MSC.98(73)-(FSS Code)- as amended, 9; IMO MSC.1/Circ.1242
EN 54-2 (1997) incl. /AC (1999) & /A1 (2006)
IEC 60092-504 Ed. 3.0 (2001) incl. /Corr.1 (2011); IEC 60533 (2015)

*This certificate is issued on behalf of the French Maritime Authorities to attest that BUREAU VERITAS did undertake the relevant
type-examination procedures for the product identified above which was found to comply with the relevant requirements of the Council Directive
96/98/EC of 20 December 1996 as amended.*


This certificate will expire on: 19 Jan 2021

For BUREAU VERITAS Notified Body 0062,

At BV NANTES, on 19 Jan 2016,

Joel Gaurin



This certificate does not allow to issue the Declaration of Conformity and to affix the mark of conformity (wheelmark ) to the products corresponding to this type. To this end, the production-control phase module (D, E or F) of Annex B of the Directive is to be complied with and controlled by a written inspection agreement with a notified body.

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. BUREAU VERITAS is designated by the French Maritime Authority as a "notified body" under the terms of the French Regulations Division 140 Chapter 140-2. 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:

CARINA

- Product description:

Conventional, 8-zones fire detection unit.

POWER SUPPLY	: 24VDC (main) + 24VDC (emergency)
THIRD SOURCE	: 6VDC with supplied cells (2 x CR2032)
LOOP CAPACITY	: 8 zones
POINT CAPACITY	: 1 to 32 points per zone (total points: 256)
ZONE CAPACITY	: 32 detectors per section
MAX. CABLE LENGTH	: 300 meters
ASSOCIATED STANDARD DETECTORS	: ionisation or optical smoke detectors : heat detector (55°C) : multisensor (combination of optical smoke and heat detector) : manual call point (IP 53)
ASSOCIATED I.S. DETECTORS	: ionisation or optical smoke detectors : heat detector (50°C, 65°C, 80°C, static or rate of rise) : wheatherproof intrinsically safe manual call point (IP 65)
« EXTERNAL SIREN » OUTPUT	: 24V, monitored (1A max *, automatic fuse protected), audible fire alarm 2minutes temporized
« FIRE ALARM » OUTPUT	: normally open dry contacts, not monitored, (1A max, not protected), immediate
« FAULT » OUTPUT	: normally open dry contacts, not monitored, (1A max, not protected), immediate
“A” PROGRAMMABLE OUTPUT	: 24V, monitored (1A max *, automatic fuse protected), temporizable : (fire, fire on zone Z07 or Z08, fault, fire + fault, ack. or not, temporizable) : Default configuration: immediate fire alarm with ack., no temporizing
“B” PROGRAMMABLE OUTPUT	: dry contacts, not monitored, (1A max, not protected), temporizable : (fire, fire on zone Z07 or Z08, fault, fire + fault, ack. or not, NO/NC, temporizable) : Default configuration: immediate fire alarm with ack., no temporizing
« RS485 » OUTPUT	: programmable protocol: V.D.R. (NMEA like), V.D.R. fast, supervision
« RS232 » OUTPUT	: programmable protocol: V.D.R., supervision, P.C. configuration
DISPLAY	: LEDs + graphic backlighted LCD (8*40 characters)
PROTECTION	: IP44
SOFTWARE VERSION	: V1.15, dated Mar 01, 2010
	* Keep « EXTERNAL SIREN » + « A » output current < 1A

2. DOCUMENTS AND DRAWINGS :

From **MARINELEC**:

- User Manual No. CARINA_MANUAL_GB_WM.doc_WM, dated 09/06/2010.
- Test Program No. ATHENA_EN54_CONFORMITY Rev. V0, dated Jul 2010.
- Software documentation No. CARINA_VERSIONS_SOFT.doc Rev 0, dated 01/03/2010.
- CARINA - GAP ANALYSIS 01 - IEC 60533 2015 - ENG, dated 03/12/2015

3. TEST REPORTS :Issued by **EMITECH**:

- Climatic Test Report No. RQ-05-60068/A Ed.0, dated Mar 18, 2005
- EMC Test Report No. RQ-05-22409-1/A Ed.0, dated Apr 27, 2005
- Climatic Test Report No. File F021331 - Document CQPE/1, dated Mar 29, 2005

Issued by **LNE**:

- Inclination Test Report No. F021331, dated Mar 18, 2005

Issued by **MARINELEC**, witnessed by Bureau Veritas:

- Functional Test Reports according to EN 54-2 No. ATHENA CARINA FUNCTIONAL TESTS PART 1, dated Nov 10, 2005
- Functional Test Reports according to EN 54-2 No. TEST_CONFORMITE_ATHENA_121205, dated Dec 12, 2005.
- Functional Test Reports according to EN 54-2/A1 No. CARINA_EN54/A1_CONFORMITY_REPORT_Rev 1, dated Feb 19, 2012

4. APPLICATION / LIMITATION :

- 4.1 - As per Requirements of Regulations stated on the front page of this certificate.
- 4.2 - The equipment fulfils the EMC requirements for installation on the Bridge and Deck Zone.
- 4.3 - The equipment is not to be fitted in hazardous areas.
- 4.4 - Prior to fit on board, assessment of compatibility or connectability with fire alarm unit is to be performed.
- 4.5 - 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 :

This certificate alone does not allow the applicant to issue the Declaration of Conformity and to affix the mark of conformity (wheelmark) to the products corresponding to this type. To this end, the production-control phase module D "Production Quality Assurance" or E "Product Quality Assurance" or F "Product Verification" of Annex B of the Directive is to be complied with and controlled by a written inspection agreement with a Notified Body.

6. MARKING OF PRODUCT :

Markings as per MED 96/98/EC:

☒ YYYY/XX where YYYY is the number of the Notified Body undertaking surveillance module (when BV, 0062) and where XX are the last two digits of year mark affixed.

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 ***