



Marine & Offshore
Division

Certificate number: 42618/A0 EC

File number: NAV 05/1356/02

Annex A1 Item number: A.1/4.7

*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 2013/52/EU

This certificate is issued to

AMESYS

AIX EN PROVENCE - FRANCE

for the type of product

SPEED AND DISTANCE MEASURING EQUIPMENT (SDME)

SHIP SPEED LOG CALYPSO

Requirements:

SOLAS 74 Convention as amended, Regulations V/18, V/19 & X/3
IMO Res.MSC.97(73) -(2000 HSC Code)- as amended 13
IMO Res.A.694(17)
IMO Res.A.824(19)
IMO Res.MSC.96(72)
IMO Res.MSC.191(79)
IEC 60945 Ed. 4.0 (2002) incl. /Corr. 1 (2008)
IEC 61023 Ed. 3.0 (2007)
IEC 62288 Ed. 2.0 (2014)
IEC 61162-1 Ed. 4.0 (2010) including IEC 61162-1 Corrigendum 1 (2013)

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: 27 Jul 2020

For BUREAU VERITAS Notified Body 0062,

At BV MARSEILLE, on 27 Jul 2015,

Stéphane LEROY



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:

"SHIP SPEED LOG CALYPSO"

1.1 - The standard equipment including:

- 1.1.1 - One main cabinet with:
 - 1.1.1.1 - One LCD screen for digital and pseudo-analog speed display
 - 1.1.1.2 - One electromechanical mile totalizer
 - 1.1.1.3 - One daily mile totalizer (on LCD)
 - 1.1.1.4 - One display unit allowing adjustment of the different correction point
 - 1.1.1.5 - One dimmer

1.1.2 - One transmitter cabinet.

1.2 - Options:

- GALV120: GA120 - analog speed and distance repeater
- PVBEN295: RGD100 - combined digital speed and distance repeater
- PVBEN301: XY version - Anthea cabinet X/Y version
- PVBEN436: DOB - RS422 – RS232 interface (1 input – 4 outputs)
- PUBEN075: BSR - 1/200 miles interface (1 input – 4 outputs)

1.3 - Software versions:

- Carte Loch: CP 9723 version 0.2
- Carte Affichage: CP 9724 version 0.1

1.4 - Miscellaneous:

- 1.4.1 - Power supply: 220 Vac 50/60 Hz ($\pm 10\%$) or 24 Vdc (+30% - 10%) or 115V 50/60Hz (+/- 10%)
- 1.4.2 - Index of protection: IP 65.

2. DOCUMENTS AND DRAWINGS:

2.1 - Operation and installation manual N° 99MU001-C - filed in NAV 05/1356/02

2.2 - Attestation of conformity to IEC 61023(2007) dated 02/Apr./2009 filed in NAV 05/1356/01

3. TEST REPORTS:

3.1 - Vibration test report N° 500689 CTSN EMI/NP/98 dated 9 April 1998 issued by DGA in France.

3.2 - Report on type approval testing of the loch in accordance with IEC 60945 and IEC 61023.

Reports: N° BSH/30/25L/96 dated 7 May 1996.

N° 005/96/U dated October 1995.

Issued by Federal Maritime and Hydrographic Agency (BSH), Germany.

N° 95/905-2 dated 6 November 1995 issued by EMV-Labor MAZ, Germany.

N° 20/6248/95-S4320 dated 24 August 1995 issued by BSH, Germany.

N° BSH/30/25L/1/98 dated 02 July 1998 issued by BSH, Germany.

3.3 - Metrology report N° 99 RT 036 dated 07/05/1999 issued by the Manufacturer in house laboratory.

Society's witnessing to test had been carried out.

3.4 - EMC test carried out by SIEMI Laboratory 03/05/1999. Society's witnessing to test had been carried out.

3.5 - Report of conformity with IEC 61162 dated 19/09/2002.

3.6 - EMC test report N° R041-09-101710-2 AA/CHB dated 21/Apr./2009 issued by Emitech.

3.7 - Meeting Report Ref : 14CR014 Ind 0 dated 31/07/2014.

4. APPLICATION / LIMITATION:

4.1 - As per requirements of regulations stated on the front page of the certificate and according to the manufacturer's specifications.

4.2 - This certificate does not cover the hull fittings which are to be type approved

4.3 - Configurations:

4.3.1 Configuration 1: Hull fitting and associated sensor - 481 series

Hull fitting Reference and description	Associated Sensor Reference and description
PUBEN016 Hull fitting 481 RVI with valve for steel hulls (weld-on type)	PUBEN008 481 RVB 16 sensor, retractable at sea
PUBEN015 Hull fitting 481 RVB with valve for wood and FRP hulls (screw-on type)	
PUBEN014 Hull fitting 481 RI without valve for steel hulls (weld-on type)	PUBEN059 481 RB 16 sensor
PUBEN063 Hull fitting 481 RB without valve for wood and FRP hulls (screw-on type)	
PUBEN062 Hull fitting 481 RA without valve for aluminium hulls (weld-on type)	PUBEN058 481 RA 16 sensor

4.3.2 - Configuration 2: Hull fitting and associated sensor - 651 series

Hull fitting Reference and description	Associated Sensor Reference and description
PVBEN350 Hull fitting 651 RVI with valve for steel hulls (weld-on type)	PUBEN056 652 RVB 20 sensor, retractable at sea
PVBEN349 Hull fitting 651 RVB with valve for wood and FRP hulls (screw-on type)	

4.3.3 - Configuration 3: Lens hull fitting and lens sensor

Hull fitting Reference and description	Associated Sensor Reference and description
PVBEN308 Lens steel hull fitting	PVBEN306 Lens sensor
PVBEN308-01 Lens aluminium hull fitting	

Note:

- Hull fitting with valves (PUBEN 015 - PUBEN 016 - PVBEN 350) or Lens hull fitting (PVBEN308) are used on all type of vessels.

- Hull fitting without valves (PUBEN 014 - PUBEN 062 - PUBEN 063), are used as follows:

- * Onboard vessels of less than 500 gross tonnage
- * Onboard Fishing ships not longer than 45 m
- * Onboard Yachts

5. PRODUCTION SURVEY REQUIREMENTS:

This certificate 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:

6.1 - Maker's name or trade mark,
 - Serial number of the units,
 - Equipment type number or model identification under which it was type-tested,
 - Compass minimum safe distance according to IEC 60945.

6.2 - 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:

7.1 - This approval is given on the understanding that the Society reserves the right to require check tests to be carried out on the electromagnetic log at any time, and that **AMESYS (AIX EN PROVENCE CEDEX 3 - FRANCE)** will accept the responsibility for informing shipbuilders or their sub-contractors of the proper methods of use and general maintenance of the electromagnetic log and the conditions of this approval.

7.2 - This Certificate supersedes EC Type Examination Certificate N° 08296/D0 EC issued on 13/10/2014 by the Society.

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