



Marine & Offshore

Certificate number: 59610/A0 MED

File number: NAV2/48983

Item number: MED/4.31

USCG Module B number: 165.203 / EC2690

This certificate is not valid when presented without the full attached schedule composed of 7 sections
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Notified Body 2690 - MARINE EQUIPMENT DIRECTIVE 2014/90/EU

EC TYPE EXAMINATION CERTIFICATE

as per Module B of Directive 2014/90/EU of the European Parliament and of the Council of 23 July 2014 as transposed in the French Regulations and Commission Implementing Regulation (EU) 2019/1397 of 06 Aug. 2019

This certificate is issued to:

Northrop Grumman Sperry Marine B. V.

Hamburg - GERMANY

for the type of product

GYRO COMPASS FOR HIGH-SPEED CRAFT

NAVIGAT 2500 - NAVIGAT 3500

Requirements:

SOLAS 74 Convention as amended, Regulation X/3

IMO Res. MSC.36(63) -(1994 HSC Code)- as amended, 13

IMO Res. MSC.97(73) -(2000 HSC Code)- as amended, 13

IMO Res. A.694(17)

IMO Res. A.821(19)

IMO Res. MSC.191(79), MSC.302(87)

IMO MSC.1/Circ.1349

ISO 16328:2014

IEC 60945 (2002) + /Corr. 1 (2008),

IEC 61162 series: IEC 61162-1 (2016) - IEC 61162-2 ed1.0 (1998-09) - IEC 61162-3 ed1.2 Consol. with am1 ed. 1.0 (2010-11)

and am2 ed. 1.0 (2014-07) - IEC 61162-450 ed1.0 (2011-06) with am1 (2016),

IEC 62288 Ed. 2.0 (2014-07).

This certificate is issued on behalf of the French Maritime Authorities to attest that Bureau Veritas Marine & Offshore did undertake the relevant type-examination procedures for the product identified above which was found to comply with the relevant requirements of the Directive 2014/90/EU of the European Parliament and of the Council of 23 July 2014 as transposed in the French Regulations.

This certificate will expire on: 11 Dec 2024

For Bureau Veritas Marine & Offshore Notified Body 2690,

At BV SAINT QUENTIN-EN-YVELINES, on 11 Dec 2019,

Antoine PERRIN



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 II 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 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. Bureau Veritas Marine & Offshore 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 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.

THE SCHEDULE OF APPROVAL

1. PRODUCT DESCRIPTION :

The NAVIGAT Gyrocompasses are based on Fiber-Optic Gyroscope (FOG). They are solid-state strap-down gyrocompasses and motion sensors. They are 6-axis motion sensors that output true heading, attitude, and motion data.

Interface

Ethernet

Ethernet port is available only for the equipment configuration and should not be connected to the shipboard Ethernet network.

Ethernet port should not be used in navigation mode.

Serial ports:

Config. port	1
Input	2
Output	2
RS232/422	Yes

Authorized sensors:

GNSS	up to 2
EM Log	up to 2
I/O Pulses:	3 in / 2 out
Power supply / Consumption:	24V DC / (15 to 36 V) 10 W

Housing

Dimensions L x W x H (mm):	160 x 160 x 113.5
Weight (kg)	2.8
Material	Aluminium
Waterproof	IP66

Software

Firmware DSP	FrmWDSP4_INS_v2_x_y x_y >= 82_21
Firmware CINT	FrmWCINT_INS_v5_x_y x_y >= 73_36

Compass Safe distances

Standard compass	30 cm
Steering compass	20 cm

2. DOCUMENTS AND DRAWINGS :

2.1 - Submitted documents and drawings are listed in file Ref: 00013715 Edition C dated: 28/11/2019.

3. TEST REPORTS :

3.1 - Submitted test reports are listed in file Ref: 00013715 Edition C dated: 28/11/2019.

4. APPLICATION / LIMITATION :

4.1 - As per requirements of Regulations stated on front page of this certificate.

4.2 - The NAVIGAT Gyro compasses (*NAVIGAT 2500* and *NAVIGAT 3500*) are MED type approved without in-built display. They should be installed on board associated with a gyro compass repeater compliant with IEC 61162 series, IEC 60945 and the relevant requirements of ISO 16328.

4.3 - IEC 61162-3 and IEC 61162-450 are not applicable.

4.4 - 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.

4.5 - If the Gyro-compass is fitted with a Bearing repeater, it is to be of a type approved by the Administration.

4.6 - The following component(s) shall comply with the requirements of MED2014/90/EU, as amended, and be wheelmarked:
- *NAVIGAT 2500 / NAVIGAT 3500*

5. PRODUCTION SURVEY REQUIREMENTS :

5.1 - 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 module E Product Quality Assurance or module F Product Verification of Annex II of the Directive is to be complied with and controlled by a written inspection agreement with a Notified Body.

5.2 - For information concerning the production phase modules, **Northrop Grumman Sperry Marine B. V Hamburg - GERMANY** has declared the following manufacturing site(s):

iXblue
34 RUE DE LA CROIX DE FER
78100 SAINT GERMAIN EN LAYE
FRANCE

iXblue
RUE PAUL SABATIER
22300 LANNION
FRANCE

6. MARKING OF PRODUCT :

6.1 - Reference is made to MED 2014/90/EU chapter 2.

In particular Article 10.3 specifies that the wheelmark shall be followed by the identification number of the Notified Body involved in the production control phase (module D, E or F) and by the year in which the mark is affixed (4 digits or last 2 digits).

6.2 - In pursuance of the EU/US MRA+, and in accordance with the Council Decision 2004/425/EC of 21 April 2004, the product(s) marked as per MED 2014/90/EU may be marked with the USCG conformity marking as authorized by the Notified Body undertaking surveillance module.

7. OTHERS :

It is **Northrop Grumman Sperry Marine B. V Hamburg - GERMANY'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.

*** END OF CERTIFICATE ***