



Marine &amp; Offshore

Certificate number: 49428/B1 MED

File number: NAV 02/24647/01

Item number: MED/4.65

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) 2021/1158 of 22 June 2021

This certificate is issued to:

**iXblue S.A.S**

SAINT GERMAIN EN LAYE - FRANCE

for the type of product

**GYRO COMPASS FOR HIGH-SPEED CRAFT**

iXblue Gyro Compasses

**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 (2018),

IEC 62288 Ed. 2.0 (2014-07),

IEC 62923-1 (2018),

IEC 62923-2 (2018).


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: 23 Jul 2026****For Bureau Veritas Marine & Offshore Notified Body 2690,**

At BV SAINT-NAZAIRE, on 10 Nov 2021,

Francois LOPINOT



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 :

|                                                                                               | <b>Octans Surface<br/>Octans IMU 90</b>                          | <b>Phins Surface<br/>Phins IMU 120<br/>Hydrins</b>            | <b>Marins M3<br/>Marins M5<br/>Marins M6</b>               | <b>Marins M7</b>                                              | <b>Quadrans<br/>iXcompass 1</b>                       |
|-----------------------------------------------------------------------------------------------|------------------------------------------------------------------|---------------------------------------------------------------|------------------------------------------------------------|---------------------------------------------------------------|-------------------------------------------------------|
| <b>Interface</b>                                                                              |                                                                  |                                                               |                                                            |                                                               |                                                       |
| <i>Ethernet</i>                                                                               | Ethernet port available for configuration and non-MED operations |                                                               |                                                            |                                                               |                                                       |
| <i>Serial ports</i>                                                                           |                                                                  |                                                               |                                                            |                                                               |                                                       |
| Config. port                                                                                  | 1                                                                | 1                                                             | 1                                                          | 1                                                             | 1                                                     |
| Input                                                                                         | 2                                                                | 5                                                             | 5                                                          | 5                                                             | 2                                                     |
| Output                                                                                        | 3                                                                | 5                                                             | 5                                                          | 5                                                             | 2                                                     |
| RS232/422                                                                                     | Yes                                                              | Yes                                                           | Yes                                                        | Yes                                                           | Yes                                                   |
| <i>Authorized sensors</i>                                                                     |                                                                  |                                                               |                                                            |                                                               |                                                       |
| GNSS                                                                                          | up to 2                                                          | up to 2                                                       | up to 2                                                    | up to 2                                                       | up to 1                                               |
| EM Log                                                                                        | up to 2                                                          | up to 2 <sup>(1)</sup>                                        | up to 2 <sup>(2)</sup>                                     | up to 2 <sup>(2)</sup>                                        | up to 1                                               |
| DVL Sensor                                                                                    | -                                                                | 1 <sup>(1)</sup>                                              | up to 2 <sup>(2)</sup>                                     | up to 2 <sup>(2)</sup>                                        | -                                                     |
| CTD/SVP                                                                                       | -                                                                | 1 <sup>(1)</sup>                                              | 1 <sup>(2)</sup>                                           | 1 <sup>(2)</sup>                                              | -                                                     |
| Depth Sensor                                                                                  | -                                                                | 1 <sup>(1)</sup>                                              | 1                                                          | 1                                                             | -                                                     |
| USBL                                                                                          | -                                                                | up to 3 <sup>(1)</sup>                                        | -                                                          | -                                                             | -                                                     |
| LBL                                                                                           | -                                                                | up to 10 <sup>(1)</sup>                                       | -                                                          | -                                                             | -                                                     |
| (1): for Hydrins, the only authorized sensor is GNSS.<br>(2): not available for all products. |                                                                  |                                                               |                                                            |                                                               |                                                       |
| <i>I/O Pulses</i>                                                                             | 4 in/2 out                                                       | 4 in/2 out                                                    | 4 in/2 out                                                 | 4 in/2 out                                                    | 3 in/2 out                                            |
| <i>Power supply</i>                                                                           | 24V DC<br>(15 to 36 V)                                           | 24V DC<br>(20 to 32 V)                                        | 24V DC<br>(20 to 30 V)                                     | 24V DC<br>(20 to 30 V)                                        | 24V DC<br>(15 to 36 V)                                |
| <i>Consumpt°</i>                                                                              | 18 W                                                             | 18 W typ.                                                     | <25 W                                                      | <25 W                                                         | 10 W                                                  |
| <b>Housing</b>                                                                                |                                                                  |                                                               |                                                            |                                                               |                                                       |
| <i>Dimensions<br/>L x W x H<br/>(mm):</i>                                                     | 275 x 136 x 150                                                  | 180 x 180 x<br>162                                            | 324 x 433 x 329                                            | 500 x 400 x<br>344                                            | 160 x 160 x<br>113.5                                  |
| <i>Weight (kg)</i>                                                                            | 4.5                                                              | 4.5                                                           | 27                                                         | 40                                                            | 2.8                                                   |
| <i>Material</i>                                                                               | Aluminum                                                         | Aluminum                                                      | Aluminum                                                   | Aluminum                                                      | Aluminum                                              |
| <i>IP Code</i>                                                                                | IP66 & IPx7                                                      | IP54                                                          | IP66                                                       | IP66 & IPx7                                                   | IP66                                                  |
| <b>Software</b>                                                                               |                                                                  |                                                               |                                                            |                                                               |                                                       |
| <i>Firmware<br/>DSP</i>                                                                       | FrmWDSP4<br>OCT_6_x_y<br><br>with<br><br>x_y ≥ 50_8              | FrmWDSP4<br>INS_6_x_y_z<br><br>with<br><br>x_y_z ≥<br>50_18_5 | FrmWDSP4<br>INS_6_x_y_z<br><br>with<br><br>x_y_z ≥ 50_18_5 | FrmWDSP4<br>INS_6_x_y_z<br><br>with<br><br>x_y_z ≥<br>50_18_5 | FrmWDSP4<br>INS_v2_x_y<br><br>with<br><br>x_y ≥ 82_21 |
| <i>Firmware<br/>CINT</i>                                                                      | FrmWCINT<br>OCT_5_x_y<br><br>with<br><br>x_y ≥ 0_0               | FrmWCINT<br>INS_7_x_y<br><br>with<br><br>x_y ≥ 0_2            | FrmWCINT<br>INS_7_x_y<br><br>with<br><br>x_y ≥ 0_2         | FrmWCINT<br>INS_7_x_y<br><br>with<br><br>x_y ≥ 0_2            | FrmWCINT<br>AHRS_v7_x_y<br><br>with<br><br>x_y ≥ 0_1  |

|                                         | <b>Octans Surface<br/>Octans IMU 90</b> | <b>Phins Surface<br/>Phins IMU 120<br/>Hydrins</b> | <b>Marins M3<br/>Marins M5<br/>Marins M6</b> | <b>Marins M7</b> | <b>Quadrans<br/>iXcompass 1</b> |
|-----------------------------------------|-----------------------------------------|----------------------------------------------------|----------------------------------------------|------------------|---------------------------------|
| <b>Compass Safe distances</b>           |                                         |                                                    |                                              |                  |                                 |
| <i>Minimum<br/>Standard<br/>compass</i> | 5 m                                     | 5 m                                                | 110 cm                                       | 80 cm            | 30 cm                           |
| <i>Minimum<br/>Steering<br/>compass</i> | 5 m                                     | 5 m                                                | 55 cm                                        | 60 cm            | 20 cm                           |

## **2. DOCUMENTS AND DRAWINGS :**

- 2.1 - Submitted documents and drawings are listed in iXblue file Ref: M/NT/IMO/010 dated: 21/04/2017.
- 2.2 - User Manuals of iXblue Gyrocompasses Ref. : M/NT/IMO/005 version: A.  
**49428/A2 MED** version submitted documents and drawings:
- 2.3 - iXblue file Ref: 00001926 version: B dated: 26/03/2019.
- 2.4 - iXblue file Ref: 00001891 version: A dated: 01/03/2019.
- 2.5 - iXblue file Ref: 00001868 version: A dated: 26/02/2019.
- 2.6 - iXblue file Ref: 00001525 version: B dated: 22/03/2019.
- 2.7 - iXblue file Ref: 00001559 version: B dated: 21/03/2019.
- 2.8 - iXblue file Ref: M/RE/IMO/007 version: A dated: 26/07/2018.
- 2.9 - **49428/A4 MED** version submitted documents and drawings are listed iXblue file Ref: 00014386 Edition: B dated : 22/01/2020.
- 2.10 - **49428/A5 MED** version submitted documents and drawings are listed iXblue file Ref: 00014652 Edition: C dated : 13/03/2020.
- 2.11 - **49428/A6 MED** version submitted documents and drawings are listed iXblue file Ref: 00015032 Edition: B dated: 23/09/2020.
- 2.12 - **49428/B0 MED** version submitted documents and drawings are listed iXblue file Ref: 00018940 Edition: B dated: 07/07/2021.
- 2.13 - **49428/B1 MED** version submitted documents and drawings are listed iXblue file Ref: 00020077 Edition: A dated: 14/10/2021.
- 2.14 - User Manuals of iXblue Gyrocompasses Ref.: 00019391 ed.E dated: 15/10/2021.

## **3. TEST REPORTS :**

- 3.1 - Submitted test reports are listed in iXblue file Ref: M/NT/IMO/010 dated : 21/04/2017.  
**49428/A2 MED** version submitted test report:
- 3.2 - Test Reports Ref: 00002694 witnessed by BV Surveyor on 17/04/2019.
- 3.3 - **49428/A4 MED** version submitted test reports are listed iXblue file Ref: 00014386 Edition: B dated : 22/01/2020.
- 3.4 - **49428/A5 MED** version submitted test reports are listed iXblue file Ref: 00014652 Edition: C dated : 13/03/2020.
- 3.5 - **49428/A6 MED** version submitted test reports are listed iXblue file Ref: 00015032 Edition: B dated: 23/09/2020.
- 3.6 - **49428/B0 MED** version submitted test reports are listed iXblue file Ref: 00018940 Edition: B dated: 07/07/2021.
- 3.7 - iXblue test report Ref: 00018858 Edition: A. Tests witnessed by Society Surveyor.
- 3.8 - **49428/B1 MED** version submitted test reports are listed iXblue file Ref: 00020077 Edition: A dated: 14/10/2021.

**4. APPLICATION / LIMITATION :**

- 4.1 - As per requirements of Regulations stated on front page of this certificate.
- 4.2 - IEC 61162-3 and IEC 61162-450 are not applicable.
- 4.3 - 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.
- 4.4 - If the Gyro-compass is fitted with a Bearing repeater, it is to be of a type approved by the Administration.
- 4.5 - The approved equipment (listed above):
- does not include its own BAM compliant HMI, and therefore should be connected to a redundant CAM/CAM-HMI (approved by the Administration) using IEC 61162-1 or IEC 61162-2 digital interfaces for BAM harmonized presentation of its alerts (Category B warnings within Bridge Cluster) ;
  - embeds only BAM function type P ;
  - if installed on a BAM compliant bridge, the equipment shall not use non-BAM compliant alert communications, unless allowed by the Administration.
- 4.6 - The following components shall comply with the requirements of MED2014/90/EU, as amended, and be wheelmarked:
- *Octans Surface / Octans IMU 90 / Phins Surface / Phins IMU 120 / Hydrins / Marins M3 / Marins M5/ Marins M6 / Marins M7 / Quadrans / iXcompass 1*

**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, **iXblue S.A.S** has declared the following manufacturing sites:

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

**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 :**

- 7.1 - It is **iXBlue S.A.S, Saint-Germain-en-Laye - FRANCE**'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 EC Type Examination Certificate n° 49428/B0 MED issued on 23/07/2021 by the Society.

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