Certificate number: 13080/F0 MED
File number: NAV 02/12577/06
Item number: MED/4.65
USCG Module B number: 165.103 / EC2690

This certificate is not valid when presented without the full attached schedule composed of 7 sections. Full certificate is to be requested to the manufacturer
www.veristar.com

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) 2026/1434 of 30 June 2026

This certificate is issued to:

Navico Group EMEA B.V.

Snijdersbergweg 93, 1105 AN,, Amsterdam, NETHERLANDS

for the type of product

GYRO COMPASS

Gyrocompass Type: GC80
Double System Controller Unit
Sensitive Element and Control unit Type: COMPACT MK2/EXPANDED MK2/DUAL MK2

Requirements:
Row 1 of 3 of Regulation (EU) 2026/1434:

SOLAS 74 Convention as amended, Regulations V/18 and V/19
IMO Res. MSC.36(63)-(1994 HSC Code), 13
IMO Res. MSC.97(73)-(2000 HSC Code), 13
IMO Res. A.424(11)
IMO Res. A.694(17)
IMO Res. MSC.191(79), MSC.302(87)
ISO 8728:2014
IEC 60945 (2002) incl./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. 3.0:2021
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 Sep 2028

For Bureau Veritas Marine & Offshore Notified Body 2690,
At BV KOBE, on 12 Sep 2026,
Shinichi Takemoto

This certificate was created electronically and is valid without signature

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:

" GC80, GC80 MK2 GYRO COMPASS "

Consisting of:
- Master Compass Unit Type N° GC80, GC80 MK2
- Double System Controller Unit

The Double System Controller Unit carries out the following functions:
- Change-over and output of double gyrocompasses signals
  - 18 serial signal (True Heading, Rate of Turn sentences) output circuits
  - 6 step signal (DC24V) output circuits (optional extension of step signals)
  - 3 ROT analog signal output circuits
  - 1 Double System Controller Unit running contact output signal
- Distribution of the input signals to both gyrocompass
  - GNSS serial signal (Latitude, Ship's speed signal, UTC information)
  - LOG serial signal (Speed Through Water, Speed Over Ground)

Note: Dual gyrocompass systems with the units comply with the requirements of IEC 61924-2 Maritime navigation and radiocommunication equipment and systems Integrated Navigation Systems.
- Control Unit associated with Interfaces Type COMPACT /EXPANDED /DUAL
- Repeater Unit Type N° AR81 , N° AR83 & AR91
- Annunciator unit
- Control Unit Type COMPACT MK2/EXPANDED MK2/DUAL MK2 (LED Numeric Display Type and LCD Display Type)
- Sensitive Element

Software Versions:

COMPACT MK2 (LED Display)

PWB type	Software version	Unit
GPANEL-A.PWB	v1.xx	Operating Panel (LED Type)
ICNT.PWB	v2.xx	

COMPACT Mk2 (LCD Display)

PWB type	Software version	Unit
LPANEL.PWB	v1.xx	Operating Panel (LCD Type)
ICNT.PWB	v2.xx	

EXPANDED MK2 (LED Display)

PWB type	Software version	Unit
GPANEL-A.PWB	v1.xx	Operating Panel (LED Type)
SCC.PWB	v2.xx	

EXPANDED MK2 (LCD Display)

PWB type	Software version	Unit
LPANEL.PWB	v1.xx	Operating Panel (LCD Type)
SCC.PWB	v2.xx	

DUAL MK2 (LED Display)

PWB type	Software version	Unit
GPANEL-A.PWB	v1.xx	Operating Panel (LED Type)
PCC.PWB	v2.xx	Gyro Monitor Panel (LED Type)
SCC.PWB	v2.xx	
SCOIF.PWB	v1.xx	

DUAL MK2 (LCD Display)

PWB type	Software version	Unit
LPANEL.PWB	v1.xx	Operating Panel (LCD Type)
ANNM.PWB	v1.xx	Gyro Monitor Panel (LCD Type)
SCC.PWB	v2.xx	
SCOIF.PWB	v1.xx	

Double System Controller

PWB type	Software version	Unit
DGCIF.PWB	v1.xx	
SCC.PWB	v2.xx	
ANNM.PWB	v1.xx	DGC Panel
DGCT.PWB	v1.xx	

2. DOCUMENTS AND DRAWINGS:

2.1 - In accordance with the manufacturer's drawings and documents, at latest and at any subsequent issue endorsed by Bureau Veritas:

2.1.1 - Master Compass Drawings:
No. 110016960 dated 2002/07/23; No. 101895020 dated 01.03.15; No. 110016970 dated 2002/07/23; No. 101695043 dated Dec 20, 1994; No. 110016980 dated 2002/07/23; No.101895080 dated 01.03.15 ; No. 110016990 dated 2002/07/23; No. 108895040 dated 01.03.15; No. 110017000 dated 2002/07/23; No. 101895060 dated 01.03.15; No. 110017010 dated 2002/07/23; No.101695277 dated 2000/03/14.

2.1.2 - Control Unit drawings:
No. 110017020 dated 2002/07/23; No. 101895241 dated 01.04.03; No. 110017030 dated 2002/07/23; No. 101895261 dated02.01.21; No. 110017040 dated 2002/07/23; No. 110017030 dated 01.03.16; No. 101895200 dated 01.03.16; No. 110017050 dated 2002/07/23; No. 101895380 dated 01.05.28; No.110017060 dated 2002/07/23; No. 101895320 dated 01.03.21; No. 110017070 dated 2002/07/2; No. 101895360 dated 01.03.21; No. 110017080 dated 2002/07/23; No. 101895340 dated 01.03.21; No. 110017090 dated 2002/07/23; No. 101895121 dated 02.01.25; No. 110017100 dated 2002/07/23; No. 101895160 dated 01.03.16; No. 110017110dated 2002/07/23; No. 101895180 dated 01.04.03; No. 110017120 dated 2002/07/23 ; No. 101895220 dated 01.03.16

2.1.3 - Technical Documentation dated 31/May/2002 including:
- General Description
- System block diagram N°s: 110016820, 110016790, 110016800, 110016810.
- Software Documentation
- Outline Drawings N°s: 109901100, 109900640, 109901110, 109900650, 109900660, 109901120, 110016840, 110016830, 110016660.
- Operator Manual.

2.2 - Risk assessment Ref: 170X-Z026-FMEA-1.
2.3 - 13080/D2 Version submitted documentation is listed in TOKYO KEIKI INC. Document No. 170X-Z034 submitted to Bureau Veritas on 25/09/2018.
2.4 - TG-8000/8100/8500/8600 IEC62923-1/-2 Alert List issued by TOKYO KEIKI INC. and dated 31/03/2021
2.5 - Certificate number: 11989/E1 MED issued by BV KOBE, on 15 Dec 2024
2.6 - Document No. 170X-Z101 -DOCUMENT FOR TYPE APPROVAL- issued by TOKYO KEIKI INC. and dated 10/02/2025

3. TEST REPORTS:
3.1 - Test report dated 07/ Nov./01 ~ 16/May/02 issued by TOKYO KEIKI INC. in-house Laboratory. The tests were witnessed by a Society's Surveyor.
3.2 - Test report dated 06/Dec./07 issued by TOKYO KEIKI INC. in-house Laboratory. The tests were witnessed by a Society's Surveyor.
3.3 - IEC61162-1 Ed.4 and IEC61162-2 Ed.1 test reports included in Documents for Type Approval for BV issued by TOKYO KEIKI INC. in-house Laboratory and dated 19/11/2012.
3.4 - IEC 62288 Ed.2 (2014) Test Report dated 20/02/2015.
3.5 - Annunciator Unit Test Report Dated : 19-20/02/2015.
3.6 - 13080/D2 Version submitted test reports are listed in TOKYO KEIKI Document No. 170X-Z034 submitted to Bureau Veritas on 25/09/2018.
3.7 - IEC62923-1 and IEC 62923-2 test reports issued by Tokyo Keiki Inc. and dated 3-4 June 2021

4. APPLICATION / LIMITATION:
4.1 - As per Requirements of Regulations stated on the front page of this certificate.
4.2 - Annunciator unit is to be provided for alert communications with a Bridge Alert Management [IMO Res.MSC.302(87)] and an Integrated Navigation System [IMO Res.MSC.252(83) and IEC 61924-2].
4.3 - According to product definition, standards IEC 61162-3 and IEC 61162-450 have been foud not applicable.

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 E "Product Quality Assurance" or 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, **NAVICO GROUP EMEA B.V.** has declared the following manufacturing sites:

TOKYO KEIKI INC. Marine Systems Company
333-4, Azuma-cho 329-2136 Yaita
Tochigi
JAPAN

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 -This equipment is covered by the scope of the Agreement between the European Community and the United States of America on Mutual Recognition of Certificates of Conformity for Marine Equipment signed February 27th, 2004 and amended by Decision No.1/2023 dated 26 May 2023 according to U.S. Coast Guard approval category indicated on front page of this certificate.
A U.S. Coast Guard approval number will be assigned to the equipment when the production module has been completed and will appear on the production module certificate (module D, E or F) as allowed by the MED.

7. OTHERS:
7.1 - It is **NAVICO GROUP EMEA B.V.**'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° 13080/E2 MED issued on 12 June 2025 by the Society.

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