

# EC-TYPE EXAMINATION CERTIFICATE (MODULE B)

Application of: Directive 2014/90/EU of 23 July 2014 on marine equipment (MED). This Certificate is issued by DNV GL SE based on the notification of the Federal Maritime and Hydrographic Agency of Germany.

**This is to certify:**

**That the Gyro compass**

with type designation(s)

**Anschütz Gyro Compass Standard 22 and/or Standard 30 MF**

Issued to

**Raytheon Anschütz GmbH  
Kiel, Germany**

is found to comply with the requirements in the following Regulations/Standards:

Regulation **(EU) 2017/306,**

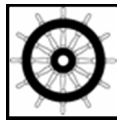
**item No. MED/4.3. SOLAS 74 as amended, Regulations V/18, V/19, IMO Res. A.424(XI), IMO Res. A.694(17), IMO Res. MSC.191(79), IMO Res. MSC.302(87)**

Further details of the equipment and conditions for certification are given overleaf.

This Certificate is valid until **2022-06-13.**

Issued at **Hamburg** on **2017-06-14**

DNV GL local station:  
**Hamburg**



for **DNV GL SE**

Approval Engineer:  
**Harald Bluhm**

Notified Body  
No.: **0098**

**Sven Dudszus**  
**Head of Notified Body**

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 "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.

The mark of conformity may only be affixed to the above type approved equipment and a Manufacturer's Declaration of Conformity issued when the production-surveillance module (D, E or F) of Annex B of the MED is fully complied with and controlled by a written inspection agreement with a Notified Body. The product liability rests with the manufacturer or his representative in accordance with Directive 2014/90/EU. This certificate is valid for equipment, which is conform to the approved type. The manufacturer shall inform DNV GL SE of any changes to the approved equipment. This certificate remains valid unless suspended, withdrawn, recalled or cancelled. Should the specified regulations or standards be amended during the validity of this certificate, the product is to be re-approved before being placed on board a vessel to which the amended regulations or standards apply.



## Product description

The Anschütz Gyro Compass System comprises of:

Anschütz Gyro Compass Standard 22 Type: 110-233

including Sensor PCB software version 110-233.P0001 E13.xx  
and Outer Sphere PCB software version 110-233.P0003 E10.xx  
and software version 110-233.P0004 E10.xx  
and Power Supply PCB software version 110-233.P0002 E10.xx  
including Gyro Sphere Type: 111-006.E01  
and/or

Anschütz Gyro Compass Standard 30 MF Type: 110-700.NG001 with software version 110-700.P0001 E00.xx

Optional equipment:

Operator Unit Type: 130-626 NG001 with software version 130-626.P0001 E00.xx or  
Type: 130-626 NG002 with software version 130-626.P0002 E00.xx or  
Type: 130-626 NG002 E01 with software version 130-626.P0002 E01.xx or  
Type: 130-627.NG001 with software version 130-627.P0001 E00.xx

1. Distribution Unit Type: 138-118 NG002  
including interface PCB with software version 138-118.P0005 E01.xx,  
I/O PCB software version 138-118.P0006 E00.xx, and software version 138-118.P0007 E00.xx
2. Distribution Unit Type: 138-118 NG003  
including interface PCB with software version 138-118.P0005 E01.xx,  
I/O PCB software version 138-118.P0006 E00.xx, and software version 138-118.P0007 E00.xx
3. AC/DC Converter Type: 121-062
4. Additional Outputbox Type: 146-103  
including Step SSC-Module 148-487 Software version 148-487.P0001 E01.xx
5. Distribution Unit Compact Type: 138-126 NG001  
including I/O-PCB software version 138-118.P0003 E10.xx or
6. Distribution Unit Compact Type: 138-126 NG002  
including I/O software version 138-118.P0006 E00.xx and software version 138-118.P0007 E00.xx
7. Static Inverter Type: 121-055 NG004
8. Serial 360 deg. Synchro Converter Type: 132-628
9. Serial /Universal Step Converter Type: 132-629
10. Syncro-Converter Type: 132-630
11. Repeater Compasses\* Type: 133-560 or Type: 133-558 or Type: 133-407  
with junction box Type: 134-109 or Type: 133-811 with Dimmer Type: 148-459 NG010
12. Pelorus Stand Type: 142-117
13. Bracket nonadjustable for Bearing Repeater Type: 142-039
14. Bracket adjustable for Bearing Repeater Type: 142-048
15. Nav Data Repeater Compass Type: 133-812
16. Multi Display Type: AN 300  
The multi-function display AN 300 may be used as Heading-, Speed-, Distance-, Water depth-,  
Rudder angle- and Rate-of-Turn indicator.
17. Course- and rudder angle printer Type: 104-033 with operator unit Type: NA05-U01
18. Magnetic sonde Type: 108-010NG001, NG002, NG003, NG004
19. Booster Type: NB03-969 or Type: 132-096 or Type: SA01-X01
20. Change-over switch Type: 124-167
21. TMC Converter Type: 121-061
22. Power Supply Type: 119-023 or 119-027

For the redundant Standard 22 compass system with automatic change-over function:

23. Change-over box Type: 138-119
24. Change-over switch Type: 124-187

\* The following heading sensors may be used in combination with Distribution Unit 138-118.NG003 or

Job Id: **344.1-006618-1**  
Certificate No: **MEDB000029J**

with the heading repeaters listed in this certificate:

Maker: GEM Elettronica S.r.l.; Type: Polaris 100 (Gyro Compass)  
Maker: Japan Radio Co., Ltd; Type JLR-20 and JLR-21(Transmitting Heading Device THD GNSS Method)  
The compass system offers the possibility to connect other type approved gyro compasses via  
Distribution Unit , Type 138 - 118.NG003.

Manuals:

4201.DOC010102 Standard 22 Operator Manual, 4201.DOC010302 Standard 22 Service Manual  
4305.DOC010002 Operator Unit 130-626, 3970.DOC010302 Distribution Unit 138-118.NG002,  
4008.DOC010302 Distribution Unit 138-118.NG003, 3769 / 138-119.doc Change over  
Box, 3656 / 121-061.doc TMC-Converter, 3912.DOC010002 Synchro-Converter 132-630,  
3969.DOC010102 Repeater Compass 133-560, 3971.DOC010002 Distribution Unit Compact 138-126,  
4352.DOC010002 Operator Unit 130-626.NG002, Operator and Service Manual Standard 30 MF  
4361.DOC010302.

### **Application/Limitation**

The product complies with the requirements of IEC 61924-2 (2012) incl. Corrigendum 1 (2013) – Module C – Alert Management and can be linked to a Bridge Alert Management (BAM) System or an Integrated Navigation System (INS).

The Transmitting Magnetic Compass (TMC) function is compliant to the requirements of ISO 25862 "Ships and marine technology – Marine magnetic compasses, binnacles and azimuth reading devices", Chapter 4.5, Item 4.5.1.

### **Type Examination documentation**

Functional / Environmental Test Reports: TA 10-09-03-GL, TA 13-11-04-GL, TA 01-02-05-GL,  
TA05-03-09, TA06-03-09; EMC Test report: 04697.116.03, TA01-04-07, TTD01-01-15;  
GL-BMP STD22-System 2009-10-06, BSH 4612/62111262/09; TTD01-07-16-OUG, TTD01-09-16,  
TTD04-08-16-Std30MF, TR-Std30MF-STD22-DNVGL-11012017

### **Tests carried out**

Applicable tests according to ISO 8728 (2014), IEC 60945 (2002) incl. Corrigendum 1 (2008), IEC61162-1 (2010), IEC61162-2 (1998), IEC 62288 (2014), IEC 61924-2 (2012) incl. Corrigendum 1 (2013) – Module C.

### **Marking of product**

According to Article 10 of the Council Directive (MED):

- The wheel mark shall be affixed visibly, legibly and indelibly to the product or to its data plate and, where relevant, embedded in its software. Where that is not possible or not warranted on account of the nature of the product, it shall be affixed to the packaging and to the accompanying documents.
- The wheel mark shall be affixed at the end of the production phase.
- The wheel mark shall be followed by the identification number of the notified body, where that body is involved in the production control phase, and by the year in which the mark is affixed.
- The identification number of the notified body shall be affixed by the body itself or, under its instructions, by the manufacturer or the manufacturer's authorised representative.

For specific products, manufacturers may use an appropriate and reliable form of electronic tag instead of, or in addition to, the wheel mark.