

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 Magnetic compass – Class A for ships

with type designation(s)
Magellan - 125, Magellan - 180

Issued to
LUDOLPH Bremerhaven GmbH
Bremerhaven, Bremen, Germany

is found to comply with the requirements in the following Regulations/Standards:
Regulation **(EU) 2020/1170**,
item No. MED/4.1. SOLAS 74 as amended, Regulations V/18, V/19 & X/3, IMO Res. A.382(X),
IMO Res. A.694(17), IMO Res. MSC.36(63), IMO Res. MSC.97(73), IMO Res. MSC.302(87)

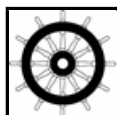
Further details of the equipment and conditions for certification are given overleaf.

This Certificate is valid until **2025-12-27**.

Issued at **Hamburg** on **2020-12-28**

DNV GL local station:
Hamburg

Approval Engineer:
Jörg Rebel



Notified Body
No.: **0098**

for **DNV GL SE**

Christine Mydlak-Roeder
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, and amended by Decision No 1/2018 dated February 18th, 2019.

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 This certificate remains valid unless suspended, withdrawn, recalled or cancelled.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.

LEGAL DISCLAIMER: Unless otherwise stated in the applicable contract with the holder of this document, or following from mandatory law, the liability of DNV GL AS, its parent companies and subsidiaries as well as their officers, directors and employees ("DNV GL") arising from or in connection with the services rendered for the purpose of the issuance of this document or reliance thereon, whether in contract or in tort (including negligence), shall be limited to direct losses and under any circumstance be limited to 300,000 USD.



Job Id: **344.1-009229-1**
Certificate No: **MEDB0000589**

Product description

The certificate covers following magnetic compasses Class A with fluxgate element:

Type designation	Description	Card diameter [mm]
Magellan – 125	Reflector magnetic compass with gimbals	125
Magellan – 180	Reflector magnetic compass with gimbals	180

Marking of Magellan – 125: REFLECTOR MAGNETIC COMPASS – ISO 25862 – A – A2 – 125

Marking of Magellan – 180: REFLECTOR MAGNETIC COMPASS – ISO 25862 – A – A1 – 180

Optional components:

Heading transmitting system: Magnetic Compass Fluxgate, Northrop Grumman Sperry Marine,
Type: 4863-1000-00 (see MEDB000025J in its latest revision).

Application/Limitation

None

Type Examination documentation

DNV GL No	Drawing No	Rev.	Title
14	TD-NA-103	01	Operating manual for reflector magnetic compass type Magellan – 180
13	TD-NA-101	01	Operating manual for reflector magnetic compass type Magellan – 125
6	NAF/2020-02	01	Report: Ludolph, Tests for Magellan - 180 according to ISO 25862, Annex B
5	NAF/2020-01	01	Report: Ludolph, Tests for Magellan - 125 according to ISO 25862, Annex B
2	U201357E2	2020-09-08	Report: Phoenix Testlab, Rain and spray test acc. to IEC 60945, Clause 8.8
1	U201357E1	2020-09-08	Report: Phoenix Testlab, Damp heat test according to IEC 60945, Clause 8.3

Tests carried out

- Environmental and EMC testing: IEC 60945 (2002) incl. Corrigendum 1 (2008)
- Performance testing: ISO 1069 (1973) and ISO 25862 (2019)

Note: The magnetic compasses Magellan – 125/– 180 do not issue alerts, hence, testing according to IEC 62923-1/-2 is deemed as not being applicable.

The above mentioned equipment has no interfaces according to IEC 61162 series, thus, testing according to IEC 61162 series is deemed as not being applicable, as well.

Marking of product

According to IEC 60945, Sect.4.9:

The product to be marked with following information, where practicable:

- Identification of the manufacturer,
- Equipment type number or model identification under which it was type tested,
- Serial number of the unit.

Alternatively, the marking may be presented on a display at equipment start-up, and in case of fixed equipment compass safe distance may be given in the equipment manual.

END OF CERTIFICATE