DNV·GL

Certificate No:
MEDB00003SJ

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 Heading control system (HCS)

with type designation(s)
SEM300, FAP-3000

Issued to
Emri A/S
Herlev, Denmark

is found to comply with the requirements in the following Regulations/Standards:
Regulation **(EU) 2017/306,**
item No. MED/4.16. SOLAS 74 as amended, Regulations V/18 & V/19, IMO Res. A.342(IX), IMO Res. A.694(17), IMO Res. MSC.191(79), IMO Res. MSC.64(67) Annex 3, IMO Res. MSC.302(87)

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

This Certificate is valid until **2023-04-12**.

Issued at **Hamburg** on **2018-04-13**

DNV GL local station:
Copenhagen

Approval Engineer:
Harald Bluhm

Notified Body
No.: **0098**

for **DNV GL SE**

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 This certificate remains valid unless suspended, withdrawn, recalled or cancelled.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

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Product description

The following units comprise the heading and drift corrected course control system.

Mandatory parts	Type
Control and Operator Unit	MIP211 or MIP251 for SEM300 or MIP241 for FAP-3000
Electronic Unit	AEU611

Optional parts	Type
Rudder Angle Feed-back unit	RFU32 or RFU33
Additional control panel	MIP211 or MIP251 or MIP241

Instruction manuals:
8488-2 or 8488-12 for SEM 300
8487-2 for FAP-3000

Type Examination documentation

Tests carried out

Functional testing: ISO 11674 (2008)
Environmental testing: IEC 60945 (2002) incl. corr. 1 (2008)
Serial interface testing: IEC 61162-1 (2010)
Presentation of navigation information: IEC 62288 (2014)

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.
Each unit of equipment normally to be installed in a distance of 5 m or less from a standard or a steering magnetic compass shall be clearly marked with the minimum safe distance at which it may be mounted from such compasses.
Only for fixed equipment: Alternatively, the minimum safe distance may be given in the equipment manual.
END OF CERTIFICATE