

# EC-TYPE EXAMINATION CERTIFICATE (MODULE B)

Certificate no.:  
**MEDB00003AT**  
Revision No:  
**2**

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

## This is to certify:

that the **Rate-of-turn indicator (ROTI)**

with type designation(s)  
**DEIF Rate of Turn Indicator System**

issued to

**DEIF A/S**  
**Skive, Midtjylland, Denmark**

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

Regulation **(EU) 2024/1975**,

**item No. MED/4.9. SOLAS 74 as amended, Regulations V/18, V/19 & X/3, IMO Res. A.526(13), IMO Res. A.694(17), IMO Res. MSC.36(63), IMO Res. MSC.97(73), IMO Res. MSC.191(79), IMO Res. MSC.302(87)**

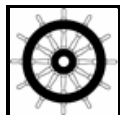
Further details of the equipment and conditions for certification are given overleaf.

This Certificate is valid until **2029-11-26**.

Issued at **Hamburg** on **2024-11-27**

DNV local unit:  
**Denmark CMC**

Approval Engineer:  
**Jörg Rebel**



Notified Body No.:  
**0098**

for **DNV SE**

**Mydlak-Röder, Christine**  
**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) 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 This certificate remains valid unless suspended, withdrawn, recalled or cancelled.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.

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 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 AS, its parent companies and their subsidiaries as well as their officers, directors and employees ("DNV") 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.

## Product description

The ROT Indicator System consists of the following equipment:

XL144, XL192, BRW-2, BW144, BW192, XDi144, XDi192

optional: XDi extension modules AX1 analogue, DX1 digital, NX1/NX2 serial

Software versions: XDi D & M platform 1: 1.0x.x and XDi D, M & N platform 2: 2.0x.x,  
AX1 Modul: 1.0x.x,  
DX1 Modul: 1.0x.x,  
NX1/NX2 Modul: 1.0x.x

## Application/Limitation

none

## Tests carried out

- Environmental and EMC testing: IEC 60945 (2002) incl. Corrigendum 1 (2008)
- Interface testing: IEC 61162-1 (2016), IEC 61162-2 (1998)
- Presentation testing: IEC 62288 (2021)
- Performance testing: ISO 20672 (2022)

Note: The DEIF Rate-of-Turn Indicator System does not issue alerts, hence, testing according to IEC 62923-1/-2 is deemed as not being applicable.

## 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,
- Compass safe distance.

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.

## Type Examination documentation

DNV No.	Document ID	Rev.	Description
13	4910211100D	2016-12-17	Report: EPC 679 XDi Test Data IEC 60945
12		2014-06-12	Report: CAN Bus performance test
10		2015-03-27	Report: Test Report Flicker evaluation XDi
8		1.1	Report: Test of a Maritime navigation and radiocommunication equipment and systems IEC 61162-1/-2
3	4921250067D	D	XDi data sheet 4921250067 UK
2	4189350046D	D	XDi quick guide 4189350046 UK
1	4189350049B	B	Manual: Designer's Handbook
-	Miscs		E502501-2 dated 05-11-2004

END OF CERTIFICATE