



TYPE APPROVAL CERTIFICATE

Certificate No:
TAA00001GV
Revision No:
3

This is to certify:

That the **Electrical Indicators**

with type designation(s)
Flexible Display Indicator XD1

Issued to

DEIF A/S
Skive, Midtjylland, Denmark

is found to comply with

DNV rules for classification – Ships, offshore units, and high speed and light craft

Application :

Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV.

Location classes:

Temperature	D
Humidity	B
Vibration	B
EMC	B
Enclosure	Required protection acc. to relevant rules shall be provided upon installation on board

Issued at **Høvik** on **2023-09-27**

This Certificate is valid until **2028-09-03**.

DNV local unit: **Denmark CMC**

Approval Engineer: **Martin Skårerverket**



for **DNV**

Digitally Signed By: **Sneen, Ståle**

Location: **DNV Høvik, Norway**

on behalf of

Frederik Tore Elter
Head of Section

This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid.
The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.

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.



Form code: **TA 251**

Revision: **2022-12**

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Product description

Flexible Display Indicator XDi with single-, dual-, multi- and nav- indicator views and extension modules AX1, DX1 and NX1/NX2.

Dimensions:	XDi 96 (HxWxD) 135x175x155 mm, XDi 144 (HxWxD) 135x225x200 mm, XDi 192 (HxWxD) 135x315x300 mm.
Protection:	from front IP52 (optional IP66), from rear IP20.
Power supply:	24 VDC (18.0...31.2 VDC)
Interfaces:	CAN interfaces, optional: analogue (AX1), digital (DX1) and serial (NX1/NX2) snap-on interfaces.
Software versions:	XDi D & M platform 1: 1.0x.x and XDi D, M & N platform 2: 2.0x.x, AX1 Module: 1.0x.x, DX1 Module: 1.0x.x, NX1/NX2 Module: 1.0x.x.

Approval conditions

The Type Approval covers hardware listed under Product description. When the hardware is used in applications to be classed by DNV, documentation for the actual application is to be submitted for approval by the manufacturer of the application system in each case. Reference is made to DNV rules for classification of ships Pt.4 Ch.9 Control and monitoring systems.

Software control

All changes in software are to be recorded as long as the system is in use on board. Documentation of major changes is to be forwarded to DNV for evaluation and approval before implemented on board.

Type Approval documentation**Tests carried out**

Applicable tests according to class guideline DNV-CG-0339, August 2021 and

- IEC 60945 4th edition (2002) incl. Corr.1 (2008)
- IEC 61162-1 edition 5.0 (2016)
- IEC 61162-2 edition 1.0 (1998)

Marking of product

The products to be marked with:

- manufacturer name
- model name
- serial number
- power supply ratings

Periodical assessment

The scope of the periodical assessment is to verify that the conditions stipulated for the type are complied with, and that no alterations are made to the product design or choice of systems, software versions, components and/or materials.

The main elements of the assessment are:

- Ensure that type approved documentation is available
- Inspection of factory samples, selected at random from the production line (where practicable)
- Review of production and inspection routines, including test records from product sample tests and control routines
- Ensuring that systems, software versions, components and/or materials used comply with type approved documents and/or referenced system, software, component and material specifications
- Review of possible changes in design of systems, software versions, components, materials and/or performance, and make sure that such changes do not affect the type approval given
- Ensuring traceability between manufacturer's product type marking and the type approval certificate

Periodical assessment is to be performed at least every second year and at renewal of this certificate.

END OF CERTIFICATE