

# EC-TYPE EXAMINATION CERTIFICATE

Certificate No:  
**MED-B-9587**  
Item No:  
**A.1/4.20**  
Job Id:  
**344.1-003940-1**

Application of: Council Directive 96/98/EC of 20 December 1996 on Marine Equipment as amended by directive 2013/52/EU, issued as "Forskrift om Skipsutstyr" by the Norwegian Maritime Directorate. This Certificate is issued by DNV GL under the authority of the Government of the Kingdom of Norway.

## This is to certify:

**That the Rudder angle indicator**

with type designation(s)  
**IS40 PRO**

Issued to

**Navico Holding AS**  
**EGERSUND, Norway**

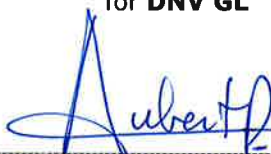
Is found to comply with the requirements in the following Regulations/Standards:  
**Annex A.1, item No. A.1/4.20 and Annex B, Module B in the Directive. SOLAS 74 as amended, Regulations V/18, V/19 & X/3, IMO Res A.526(13) & A.694(17), IMO Res. MSC. 191(79) and 2000 HSC Code 13**

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

**Høvik, 2015-01-22**  
for **DNV GL**



This Certificate is valid until  
**2020-01-22**

*for*   
for **Marianne Strand Valderhaug**  
**Head of Department**

Notified Body No.: **0575**

DNV GL local office:  
**Stavanger**

  
**Steinar Kristensen**  
**Surveyor**



The Certificate is subject to terms and conditions overleaf. Any significant changes in design or construction of the product, or amendments to the Directive or Standards referenced above may render this Certificate invalid. The product liability rests with the manufacturer or his representative in accordance with Council Directive 96/98/EC, as amended. The Mark of Conformity may only be affixed to the product and a Declaration of Conformity may only be issued when the production/product assessment module referred to in the council directive, is fully complied with.

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**Product description**

IS40 PRO Rudder Angle Indicator system consisting of the following components :

**Hardware modules:**

Unit	Description	SW	Model name	Environment
Indicator	Rudder Angle Indicator display unit	1.2.x	IS40 PRO	Protected
Transmitters (alternatives)	Rudder Feedback Unit	1.2.x	RF25N	Exposed
	Rudder Feedback Unit	1.2.x	RF70N	Exposed

**Application/Limitation**

- Installation to be performed in accordance with manufacturers installation manuals.

**Tests carried out**

- Performance testing: ISO 20673 (2007)
- Environmental testing: IEC 60945 (2002)
- Presentation of navigation information: IEC 62288 (2014)

**Type Examination documentation**

DNV GL No	Document ID	Description	Rev.
17	20244935	Report: Navico, IS40 PRO Test for temporal stability/flickering	A
14	988-10617-001	Manual: SIMRAD, RF70N Rudder Feedback Instructions	001
13	988-10277-001	Manual: SIMRAD, RF25N Rudder Feedback Instructions	001
12	120622.1	Report: EMC Technologies, EMC test report for RF25N	2012-08-30
11	111003.1	Report: EMC Technologies, EMC test report for T41 (IS40) display	2011-11-25
10	2012-3214	Report: DNV, Environmental test report for AP70/80 incl RF25N	02
9	2002_3131	Report: DNV, EMC and environmental test report incl RF300S and RF45X	01
8	IS40_OM_EN	Manual: Navico, IS40 PRO Operator Manual	001
7	20244901	Report: Navico, IS40 Pro, Comparison between IEC 62288 Ed 1.0 and 2.0	A
5	IS40_OM_EN	Manual: Navico, IS40 Operator Manual	2014-11-14
4	EMCS42271-EN 60945	Report: Met Laboratories, EMC test report covering IS40 PRO	2014-08-25
3	ESLU42271-IEC	Report: Met Laboratories, Environmental test report covering IS40 PRO	2014-08-25
2	20244836	Report: Navico, ISO 20673 Performance tests	B
1	20244828	Report: Navico, IEC62288 tests for IS40, IS70, IS80, IS80 Panorama and AP70-80	B



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### Marking of product

- The Manufacturer and Type Designation to be applied to the equipment in a clearly visible location and in addition the equipment shall be marked with serial number, power consumption and/or supply voltage.

### Mark of Conformity

The manufacturer is allowed to affix the Mark of Conformity according to Article 11 in the Council Directive 96/98/EC on Marine Equipment and shall issue a Declaration of Conformity, only when the module D or E or F of Annex B in the same directive is fully complied with.

Module D: The quality system for production and testing shall be approved by the Notified Body.

Module E: The quality system for inspection and testing shall be approved by the Notified Body.

Module F: Compliance of the products to type as described in this EC Type-Examination Certificate must be verified by the Notified Body who also shall issue a Certificate of Conformity.

