

**EC-TYPE EXAMINATION
CERTIFICATE**

Certificate No:
MED-B-9781
Item No:
A.1/4.32
Job Id:
344.1-004690-1

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 AS under the authority of the Government of the Kingdom of Norway.

This is to certify:

That the Universal automatic identification system equipment (AIS)

with type designation(s)
FA-150

Issued to

**Furuno Electric Co., Ltd.
Nishinomiya Hyogo Pref, Japan**

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

Annex A.1, item No. A.1/4.32 and Annex B, Module B in the Directive. SOLAS 74 as amended, Regulation V/18, V/19 & X/3, IMO Res A.694(17), IMO Res. MSC. 74(69) & 191(79), ITU R. M. 1371-4 (2010) and 2000 HSC Code 13

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

**Høvik, 2015-03-13
for DNV GL AS**



This Certificate is valid until
2016-06-30

M. Valderhaug
**Marianne Strand Valderhaug
Head of Department**

Notified Body No.: **0575**

DNV GL local office:
Kobe

Olaf Gundersrud
**Olaf Gundersrud
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

The FA-150 UAIS consists of the following units:

Component	Location
AIS transponder	Protected
MKD	Protected
GPS antenna	Exposed
VHF antenna	Exposed

For details, see Appendix.

For latest revision of the Appendix, see <http://exchange.dnv.com/tari>

Application/Limitation

The internal GPS sensor of FA-150 may be used as back-up sensor for position reporting. The FA-150 components shall be installed in compliance with the Installation Manual Pub. No. IME-44310-H.

Note: The FA-150 is examined and found to comply with the standards for interconnection with a Bridge Alarm Management System; IMO resolution MSC.302(87) "Bridge Alarm Management" and IEC 61924-2 "Modular structure for INS", Annex K and Annex M.

Type Examination documentation

- For details, see Appendix.

Tests carried out

- EN61993-2(2013)
- EN61108-1(2003)¹⁾
- EN61162-1(2011)
- EN61162-2(1999)
- EN62288(2008)
- EN60945(2002) (as amended)

¹⁾as applicable for position reporting

Marking of product

The designation of Manufacturer and Type to be fixed in a clearly visible location. In addition the equipment shall be marked with serial number, safe distance to magnetic compass, 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.

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USCG Approval¹⁾

The product has been assigned a **U.S. Coast Guard Module B number**, USCG approvals 165.155/EC0575 to note type approval to Module B only as it pertains to obtaining US Coast Guard approval as allowed by the "Agreement between the United States of America and the EEA EFTA states on the mutual recognition of certificates of conformity for marine equipment" signed 17 October 2005.

¹⁾Radio transmitter is required to be authorized by U.S Federal Communications Commission (FCC).



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APPENDIX REV. NO. 0 (PAGE 1 OF 1)

Product description:

The FA-150 UAIS comprises the following components:

Unit	Model Name	Remark
AIS transponder	FA-1501	
Keyboard & Display (MKD)	FA-1502	
GPS antenna	GSC-001 <i>or</i> GPA-017S	
VHF antenna	150M-W2VN <i>or</i> FAB-151D	
<i>Software</i>	2450018-04.xx ¹⁾ 2450021-04.xx ²⁾	¹⁾ FA-1501 ²⁾ FA-1502

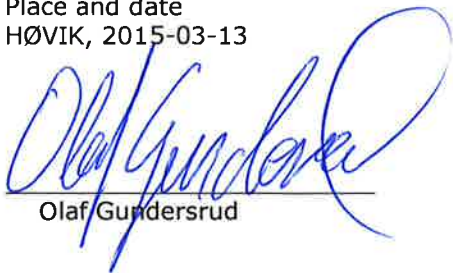
Optional components:

Combined antenna unit	GVA-100	
Distributor unit	DB-1	
AC/DC power supply	PR-240	

Type Examination documentation

DNVGL No.	Document No.	Document Title
8	OME-44310-K2	Operator's Manual U-AIS transponder FA-150
7	IME-44310-H	Installation Manual U-AIS transponder FA-150
6	BSH/46121/4322387/13-4	AIS Class A -IEC61993-2 section 15 and D.2
5	BSH/46121/4322387/13-1	AIS Class A -IEC61993-2 Section 14
4	BSH/4612/4322181/12-4	AIS Class A -IEC61162-1
3	BSH/4612/4322181/12-1	AIS Class A -IEC61993-2 and ITU-R M.1371-4
2	FLI-12-09-090	Monitor unit for U-AIS Transponder FA-150 type FA-1502
1	BSH 4612/4321162/10	MKD for U-AIS Transponder FA-150

Place and date
HØVIK, 2015-03-13


Olaf Gundersrud



End of Certificate