



# EC-TYPE EXAMINATION CERTIFICATE (MODULE B)

Certificate No:  
**MEDB00001BW**  
Revision No:  
**2**

Application of: Directive 2014/90/EU of 23 July 2014 on marine equipment (MED), issued as "Forskrift om Skipsutstyr" by the Norwegian Maritime Authority. This Certificate is issued by DNV AS under the authority of the Government of Norway.

## This is to certify:

### That the GNSS Equipment

with type designation(s)  
**SC-70 and SC-130**

Issued to

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

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

Regulation **(EU) 2022/1157**,

**item No. MED/4.53. SOLAS 74 as amended, Regulations V/18, V/19 & X/3, IMO Res. A.694(17), IMO Res. MSC.36(63), IMO Res. MSC.97(73), IMO Res. MSC.164(78), ITU-R M-1176-1 (02/13)**

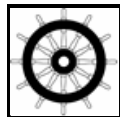
Further details of the equipment and conditions for certification are given overleaf.

This Certificate is valid until **2025-07-01**.

Issued at **Høvik** on **2023-01-30**

DNV local unit:  
**Kobe**

Approval Engineer:  
**Frederik Tore Elter**



Notified Body  
No.: **0575**

for **DNV AS**

**Sverre Olav Bergli**  
**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 United States of America and the EEA EFTA states on the mutual recognition of Certificates of Conformity for Marine Equipment" signed 17 October 2005, and amended by Decision No 1/2019 dated February 22nd, 2019.



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 This certificate remains valid unless suspended, withdrawn, recalled or cancelled.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

**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 SC-70/SC-130 GPS consists of the following units:

| Unit         | Location  |
|--------------|-----------|
| Antenna unit | Exposed   |
| Display unit | Protected |
| Junction box | Protected |

For details, see Appendix.

## Application/Limitation

The SC-70/SC-130 shall be installed and setup as IMO-compliant GPS and commissioned in accordance with the installation instructions of Pub. No. OME-72820-K1 (or later version).

## Type Examination documentation

- See Appendix.

## Tests carried out

- IEC 61108-1 (2003)
- IEC 61162-1 (2016)
- IEC 61162-2 (1998)
- IEC 61162-450 (2018)
- IEC 62288 (2014)
- IEC 60945 (2002)
- IEC 62923-1 (2018), IEC 62923-2 (2018)

## 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.

## APPENDIX

**Product description:**

The SC-70/SC-130 GPS include the following units and parts:

| Unit                | Model Name   | Remark                             |
|---------------------|--|------------------------------------|
| Antenna unit        | SC-703   | SC-70                              |
|                     | SC-1303  | SC-130                             |
| Display unit        | SC-702   |                                    |
| Junction box        | SC-701   |                                    |
| Interfaces          | IEC61162-1<br>IEC61162-2<br>IEC61162-450           | 4 ports<br>1 port<br>1 port        |
| Remote display unit | RD-50  | *option                            |
| Software versions   | 20151562-01.xx<br>20151566-01.xx<br>20151570-01.xx | SC-701<br>SC-702<br>SC-703/SC-1303 |

**Type Examination documentation**

| NPS No. | Document No.  | Ver.                | Document Title   |
|---------|---------------|---------------------|--|
| 53      | LIC04-22-0178 |                     | Report IEC 60945, LABOTECH Furuno GNSS Antenna Unit, GPA-022S                              |
| 38      | K20-17-1652   | 2020/11/30          | Report: Type Approval test report for Model: Satellite Compass                             |
| 37      | K20 -17 -1657 | 2020/11/30          | Report: Testing Report of Bridge Alert Management Model: Satellite Compass Type: SC-70/130 |
| 35      | LIC 12-20-167 | 30 October 2020     | Report: LABOTECH IEC 61162-450 - Test Report SATELLITE COMPASS Type: SC-70/130             |
| 34      | LIC 01-20-037 | 30 October 2020     | Report: LABOTECH IEC 61162-450 - Reference document for IEC 61162-450 SC 70/130            |
| 31      | OME-72820-K1  | K1 : MAR . 11, 2020 | Manual: Furuno OPERATOR'S MANUAL SATELLITE COMPASS SC-70 SC-130                            |
| 28      | K20-17-125x   | x=2,3,4,5           | GPS/DGPS: static accuracy and angular movements  |
| 27      | LIC 12-16-075 |                     | IEC62288 test report: RD-50 remote display   |
| 25      | K20-19-010    | 1                   | NMEA and LAN interfaces  |
| 23      | FLI12-13-045  |                     | Test report IEC61162-1/2: GP-170   |
| 22      | LIC12-16-074  |                     | Test report IEC62288: SC-702   |
| 21      | LIC12-16-073  |                     | Test report IEC61162-450: SC-70/SC-130   |
| 20      | LIC12-16-072  |                     | Test report IEC61162-1/2: SC-70/SC-130   |
| 19      | LIC 12-16-071 |                     | CSD test report IEC60945 (other): SC-70/SC-130   |
| 18      | LIC 12-16-070 |                     | Test report IEC60945 (rain): SC-130  |
| 17      | LIC 12-16-069 |                     | Test report IEC60945 (environ.): SC-130  |
| 15      | LIC 12-16-067 |                     | Test report IEC60945 (other): SC-70  |
| 14      | LIC 12-16-066 |                     | Test report SC-70: IEC60945 (environ.)   |
| 13      | LIC 12-16-065 |                     | EMC test report SC-70: IEC60945  |
| 10      | CW-060        | statement           | Statement to waive the corrosion test  |
| 9       | K20-17-1256-0 |                     | Testing report of Interfering signal - L band  |
| 8       | K20-17-1257-0 |                     | Testing report of Interfering signal - S band  |
| 7       | K20-17-1259   |                     | Testing report of Static error test (ISO22090-3)   |
| 6       | K20-17-1260   |                     | SC-70/130: Testing report For pending items  |



Job Id: **344.1-005710-3**  
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| <b>NPS No.</b> | <b>Document No.</b> | <b>Ver.</b> | <b>Document Title</b>                          |
|----------------|---------------------|-------------|--|
| 5              | K20-17-1311         |             | SC-70/130: Testing report For pending items    |
| 4              | OME-72820-A10       | A10         | Operator's Manual SC-70 / SC-130 GPS (Compass) |
| 1              | K24-17-1258         |             | SC-70/130 DNV type approval testing report     |