

# TYPE EXAMINATION CERTIFICATE (MODULE B)

Certificate No:  
**MERB00001BW**  
Revision No:  
**0**

This Certificate is issued by DNV UK Limited based on authorisation of the Maritime & Coast Guard Agency (MCA) as an UK Approved Body to undertake conformity assessments on marine equipment in accordance with the requirements of the Merchant Shipping (Marine Equipment) Regulations 2016 as amended.

## This is to certify:

### That the GNSS Equipment

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

Issued to

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

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

Regulation **MSN 1874 Amendment 6,**

**item No. UK/4.63. 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.112(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 **2026-01-07**.

Issued at **London** on **2022-12-28**

DNV local unit:  
**Kobe**



for **DNV UK Ltd.**

Approval Engineer:  
**Frederik Tore Elter**

Approved Body No.: **0097**

**Christine Mydlak-Röder**  
**MER Service Responsible**



Maritime &  
Coastguard  
Agency

UK Approved Body Authorised  
by the MCA

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-control phase module (D, E or F) of Schedule 2 of the Merchant Shipping (Marine Equipment) Regulations 2016, as amended is fully complied with and controlled by a written inspection agreement with an approved body. The product liability rests with the manufacturer or his representative in accordance with the Merchant Shipping (Marine Equipment) Regulations 2016.

This certificate is valid for equipment, which is conform to the approved type. The manufacturer shall inform DNV UK Ltd. of any changes to the approved equipment. 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. This certificate remains valid unless suspended, withdrawn, re-called, or cancelled.

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) Incl. Corr.1 (2008)
- 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 IEC61162-2 IEC61162-450	4 ports 1 port 1 port
Remote display unit	RD-50	*option
Software versions	20151562-01.xx 20151566-01.xx 20151570-01.xx	SC-701 SC-702 SC-703/SC-1303

### Type Examination documentation

DNV No.	Document ID	Rev.	Description
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
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