

# Certificate

of

## EC type-examination (Module-B)

N°: 02212008\AA\02

With respect to Marine Equipment Directive 96/98/EC and the amending Directive 2002/75/EC, Telefication declares that the equipment:

Product description: **A.1/4.7  
Speed and distance measuring equipment**  
Trademark: **Furuno**  
Family name: **--**  
Type designation: **DS-30**  
Serial N°: **2207-0323**  
Software release N°: **6650100-009**

Manufacturer: **Furuno Electric Co., Ltd.**  
Address: **9-52 Ashihara Cho**  
City: **662-8580 Nishinomiya City**  
Country: **Japan**

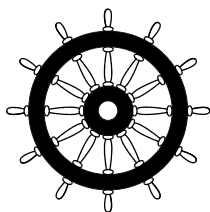
complies with the international instruments and test standards as listed in the Annex.

This certificate is granted to:

Name: **Furuno Electric Co., Ltd.**  
Address: **9-52 Ashihara Cho**  
City: **662-8580 Nishinomiya City**  
Country: **Japan**

Validity from date of issue is 5 years; **Expiry date: 30 August 2010**  
. This certificate includes two Annexes.

Zevenaar, 30 August 2005



M.H. Koop  
Manager Certification



### General conditions:

- Each product to which this certificate relates shall be provided with Marine markings.

The Marine marking consist of symbol in the form of a wheel followed by the identification number of the responsible Notified Body (Telefication - 0560 -), and by the last two digits of the number of the year in which the mark is affixed.

- The holder of this Certificate has drawn up a Declaration of conformity to type with Directive 96/98/EC and amending Directives, declaring that the product(s) described in this EC Type-examination certificate, satisfy the requirements that apply to them.
- Each product shall be identified by means of type, batch and/or serial numbers and the name of the manufacturer and/or importer.
- If the equipment is to be modified, Telefication shall be notified immediately. Depending on the modifications, Telefication may have additional examinations carried out in consultation with the applicant.

### Remarks and observations

*The following conditions are applicable:*

- Instead of the optional laser gyro DS-340, the heading or ROT data from the onboard gyro compass can be utilized with comparable performance.  
This facility has been implemented by adaption of the main software.

## Documentation lodged for the EC type-examination

### *Testreports:*

- DRA Fraser: AWI/C-R/TT/44/92/2-1.0, 17 August 1994
- Labotech: FLI 12-99-040, 15 November 1999
- Labotech: FLI 12-05-035, 28 July 2005

### *Product documentation:*

- User manual
- Installation manual
- Assembly drawings
- Bill of materials
- Electric diagrams
- Photos

## International instruments and test standards

### *The equipment complies with:*

- EN 61023            July 1999
- EN 60945           January 1997
- EN 60945           2002            Edition 4
- EN 61162-1        July 2000
- IMO Resolutions
- MSC36(63)
- MSC.96(72)
- A.694(17)
- A.824(19)

## Technical features

### *The product includes the following features:*

- Transducer operating frequency: 440 kHz
- Measuring range ship's speed: - 10.0 to 40.0 kt
- Ground tracking: 1 to 200 m
- Distance run: 0 to 99999,99 nm

*System related equipment*

The product to which this certificate relates includes to following units or equipment:

- DS-300: Main display
- DS-301: Operation panel
- DS-310: Processor unit
- DS-320: Transceiver unit
- DS-330: Transducer
- DS-350: Digital indicator (option)
- DS-351: Digital indicator (option)
- DS-382: Analog indicator (option)
- DS-370: Distribution box (option)
- DS-360: Junction box (option)
- DS-340: Rate-of-turn Gyro (option)