

EC-TYPE EXAMINATION CERTIFICATE (MODULE B)

Certificate No:
MEDB00001MR
Revision No:
4

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 GL AS under the authority of the Government of Norway.

This is to certify:

That the Simplified voyage data recorder (S-VDR)

with type designation(s)
VR-7000S

Issued to

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

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

Regulation **(EU) 2018/773,**

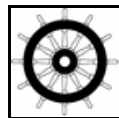
item No. MED/4.47. SOLAS 74 as amended, Regulation V/20, IMO Res. A.694(17), IMO Res. MSC.163(78), IMO Res. MSC.191(79), IMO Res. MSC.302(87)

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

This Certificate is valid until **2024-06-06.**

Issued at **Høvik** on **2019-08-27**

DNV GL local station:
Kobe



for **DNV GL AS**

Approval Engineer:
Olaf Gundersrud

Notified Body
No.: **0575**

Roald Vårheim
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 22 February 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 GL 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 This certificate remains valid unless suspended, withdrawn, recalled or cancelled.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.



Job Id: **344.1-005978-4**
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Product description

The VR-7000S S-VDR comprises combinations of the following components:

Unit	Model Name	Remark	Location
Data collecting unit (DCU)	VR-7010	<i>Incl. 2+6 serial interfaces</i>	Protected
Fixed data recording unit	VR-7020	<i>One or the other recording unit is satisfactory</i>	Exposed
Float-free data recording unit	VR-7021F		Exposed
Remote alarm panel	VR-7017		Protected
Microphone	VR-7011	<i>Max 8 ch.</i>	Protected
Microphone waterproof	VR-7012W		Exposed
Video LAN converter	IF-7100	<i>Max 2 ch.</i>	Protected
Sensor adapter	MC-3000S	<i>Serial</i>	Protected
Sensor adapter	MC-3010A	<i>Analog (option)</i>	Protected
Sensor adapter	MC-3020D	<i>Digital (option)</i>	Protected
Live player V5	VR-7030	<i>Playback package</i>	Protected
Intelligent HUB	HUB-3000	<i>option</i>	Protected
Switching HUB	HUB-100	<i>option</i>	Protected
Junction box	IF-8530	<i>option</i>	Protected
Junction box	VR-7022F	<i>option</i>	Protected
<i>Software versions</i>			
<i>VR-7010</i>	2450102-01.xx		
<i>VR-7017</i>	2450103-01.xx		

Application/Limitation

The VR-7000S equipment shall be installed in compliance with the installation instructions of Pub. No. IME-44850.

Type Examination documentation

NPS No.	Document No.	Rev.	Document Title
1	K24-17-797	2	Type approval testing procedure S-VDR
4	NEMKO E13261.06		EPIRB with attached Voyage Data Recorder
5	E42-01402-C10		Instruction Manual: DATA EXTRACTION PROCEDURE
6	IME-44850-P10		Installation manual
7	OME-44850-K11		Operator's manual. VR-7000/VR-7000S
8	OME-44851-C10		Operator's manual. Live player V5: VR-7030
9	OME-44852-C10		Instruction manual. VDR maintenance viewer: VR-7000/VR-7000S
11	LIC 12-19-026		Test report IEC61162-1 for VR-7010
12	K-24-17-941-0		Internal test report of IEC61162-450 Ed.1 AMD1
13	FLI 12-14-021		Test report of IEC61162-450 for VR-7000
14	K24-17-927-0		Internal Test Report of IEC61162-1 Ed.5
5*	K24-19-017		VR-7000 - Technical document
6*	K24-17-591		VR-7000 - Type approval testing report

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NPS No.	Document No.	Rev.	Document Title
7*	K24-19-016		Technical Document VR-7000
8*	K24-17-633		Test report IEC61996-2 6.2.2.5 Audio complex signals
9*	K24-17-637		Furuno Image Test Report of VR-7000
11*	ENV266		L3 HVR04 Crash Survivability test report
12*	ENV267		L3 HVR04 Environmental/EMI test report
17*	75924802	1	TUV SUD - TRON40VDR test report - Cospas-Sarsat T.007
22*	FLI12-14-020		IEC61162-1/2 test report
24*	FLI12-14-022		EMC test report
25*	FLI12-14-023		IEC60945 test report
26*	FLI12-14-024		IEC60945 operation check report
27*	FLI12-14-025		Compass safe distance report
28*	FLI12-14-026		IEC62288 report
30*	K24-17-658		Recording duration test
31*	K24-17-657		UTC time synchronization
34*	K24-19-017-3		Technical document - BER monitoring
35*	K24-19-019		Technical document - configuration data file
37*	K24-19-018		Technical document - monitoring and alerts
38*	FLI12-14-135		IEC60945: EMC test report
39*	FLI12-14-136		IEC60945: Environmental test report
40*	FLI12-14-137		IEC60945: Compass safe distance
42*	K24-17-637-2	1	Test report of Image Evaluation for VDR
43*	K24-19-021		Technical document; IF-7100 changes

* file 344.1-003845

Tests carried out

- Performance - IEC61996-1(2013)(incl. Corr.1, 2014)*
- Serial Interface - IEC61162-1(2016)
- Serial Interface - IEC61162-2(1998)
- LAN Interface - IEC61162-450(2011)(with am1, 2016)
- Presentation - IEC62288(2014)
- Environmental - IEC60945(2002)(incl. Corr.1, 2008)

*incorporates IEC61196-2(2007)

Marking of product

The type designation and name and contact address of the manufacturer shall be affixed visibly, legibly and indelibly to at least one part of the product. In addition the various equipment shall be marked with serial number. Safe distance to magnetic compass and power consumption and/or supply voltage may be stated in the individual installation manuals.