DANAK
PROD Reg.No. 7035
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TÜV SÜD
Danmark

Marine Equipment Directive
EC Type Examination Module B Certificate

This is to certify that TÜV SÜD DANMARK ApS did undertake the relevant type approval procedures for the equipment identified below, which was found to be in compliance with the Marine Equipment Directive (2014/90/EU) requirements, under the following Implementing Regulation for the listed types of equipment

Implementing Regulation	**(EU)2019/1397**
Certificate Holder and Manufacturer	**Japan Radio Co., Ltd. 4-10-1, Nakano Nakano Central Park East 3F Nakano-ku Tokyo 164-0001 Japan**
EC Representative	**JRC Dublin 77 Camden Street Lower St. Kevin's Dublin 2 DO2 XE80 Ireland**
Product(s)	**JCY-1900**
Product Sector	**Navigation Equipment**
Product Type	**MED/4.29 Voyage Data Recorder (VDR)**

and on the basis of the Technical Data and information detailed in the Annex to this certificate.

Valid from: 19 May 2020

(Tom Twynam)

Expiry Date: 01 July 2024

This certificate has been issued in accordance with the TÜV SÜD Testing and Certification Regulations and constitutes page 1 of the combined Certificate and Annex.
The Conditions for the validity of this certificate are listed in the Annex.
For further details, related to this certification please contact BABT@TUV-SUD.co.uk

2443

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1 Equipment Description

Shipborne Voyage Data Recorder

1.1 Models

Model
JCY-1900

1.1.1 System Components

Model	Description
NDV-1900	Recording Control Unit
NCG-1900	Operation Panel Unit
NWP-69 Note 1	Frame Grabber Unit
NVT-181 Note 2	Microphone Unit(s)
Final Recording Medium	
NDH-339 Note 3	Float-Free Capsule
NQE-7700A Note 4	Connection Box
NDH-338 Note 5	Fixed Protective Capsule
NQE-3163B Note 6	Connection Box

1.1.2 Optional Components

Model	Description
NVT-182 Note 2	Waterproof Microphone Unit(s)
NCT-83	Digital Signal Converter (64CH)
NCT-82	Digital Signal Converter (32CH)
NWP-69	Frame Grabber Unit
NCT-84	Data Acquisition Unit
FBH-40 Note 7	Float Free Bracket

1.2 Software Note 8

Identity	Description
01.02	NDV-1900 (RCU)

2 Assessed Requirements

2.1 Implementing Regulation (EU)2019/1397

2.2 Compliance Requirements for MED/4.29 Note 9

IMO Resolutions	International Testing Standards	
Resolution MSC.333(90)	IEC 61996-1:2013 incl. Corr.1:2014	Maritime navigation and radiocommunication equipment and systems — Shipborne voyage data recorder (VDR)
Resolution MSC.191(79) Resolution MSC.302(87)	IEC 62288:2014	Maritime navigation and radiocommunication equipment and systems — Presentation of navigation-related information on shipborne navigational displays
Resolution A.694(17)	IEC 60945:2002 incl. IEC 60945 Corr. 1:2008	Maritime navigation and radiocommunication equipment and systems — General requirements
	IEC 61162-1:2016	Maritime navigation and radiocommunication equipment and systems — Digital interfaces – Part 1: Single talker and multiple listeners
	IEC 61162-2:1998	Maritime navigation and radiocommunication equipment and systems — Digital interfaces — Part 2: Single talker and multiple listeners, high-speed transmission
	IEC 61162-450:2011 + Amendment 1 (2016)	Maritime navigation and radiocommunication equipment and systems — Digital interfaces — Part 450: Multiple talkers and multiple listeners — Ethernet interconnection

3 Technical Documentation

3.1 Declaration of Conformity

MED-DoC-JCY-1900 DK	Modified	2020-04-28

3.2 User Guide

JCY-1900 Voyage Data Recorder Instruction Manual 7ZPNA4384D	Modified	2020-05-07
JCY-1900 Voyage Data Recorder Installation Manual (Hardware) 7ZPNA4407A	Modified	2016-04-18
JCY-1900 Voyage Data Recorder Installation Manual (Software) 7ZPNA4436	Modified	2014-06-25
CYC-825 Playback Software Instruction Manual Version 7ZPNA4421	Modified	2014-06-26
Installation Guide for Heater Type Bracket FBH-40 7ZPNA4751	Modified	2018-12-19

3.3 Test Reports

3.3.1 IEC 61996-1 (2013) incl. Corr.1 (2014)

75924252 Report 01 Issue 2	Issued	2014-06-25
BSH-4542/002/0062638/14	Issued	2014-04-14
BSH/4542/002/0062585/14	Issued	2014-04-25
MED-B-16251	Issued	2016-09-28

3.3.2 IEC 62288 (2014)

75924252 Report 01 Issue 2	Issued	2014-06-25
NA16ZZ0523E	Dated	2016-05-23
NA16ZZ0523F	Dated	2016-05-27
NA16ZZ0523G	Dated	2016-05-23

3.3.3 IEC 60945 (2002) incl. Corr.1 (2008)

13215	Issued	2014-01-09
2A13088	Issued	2014-01-16
75924252 Report 01 Issue 2	Issued	2014-06-25
13-468(E)	Issued	2013-12-06
13-339(E)	Issued	2013-11-01
13-340E	Issued	2013-11-01
13-473E	Issued	2013-12-12
Corrosion Test Report	Issued	2014-03-27
E16049.00	Issued	2016-04-18
E13261.04	Issued	2014-04-26

3.3.4 IEC 61162 Series

75924252 Report 01 Issue 2	Issued	2018-06-05
JCY1900_IEC61162_450_RESOLUTION_result.pdf	Dated	2013-12-11
Test Report (IEC61162-1 Ed.4 2010)	Modified	2013-12-12
NA19AS0422A	Dated	2019-05-10
NA19AS0422B	Dated	2019-05-10

3.4 Build Status

3.4.1 Hardware

JCY-1900_PartsList	Dated	2013-12-17
JCY-1900 Voyage Data Recorder Installation Manual (Hardware) 7ZPNA4407A	Dated	2016-04-18

3.5 Notes

Note 1 The NWP-69 Frame Grabber Unit is required for Radar image gathering. Where all bridge radar are capable of providing radar images via a LAN interface this unit may be omitted. This should be assessed for each installation and is subject to agreement by the relevant administration, that the data coming from LAN/Ethernet connections provides a satisfactory image source for that vessel.

Note 2 The JCY-1900 can utilise a combination of the NVT-181 and NVT-182 microphones, up to a maximum of 12 units. The number and type of microphones will be dependent upon the requirements of each individual installation.

Note 3 The float-free capsule is an OEM unit supplied by Jotron AS and is approved for Class 2 operation. The NDH-339 is equipped with 64GB of memory. Larger memory size capsules are available to maintain 48 hours recording duration with larger data loading, or to provide longer recording duration.
The float-free capsule has been shown to be compliant with the requirements of RTCM 11000.4 Amendment 1 and may be provided with a wrist strap for hands-free carriage. The FCC Grant for FCC ID VRVTRON40VDR applies.

Note 4 The NQE-7700A Connection Box is required for the NDH-339 Float-Free Capsule Unit.

Note 5 The fixed protective capsule is an OEM unit supplied by L-3 Communications Aviation Recorders. The NDH-338 is equipped with 32GB of memory. Larger memory size capsules are available to maintain 48 hours recording duration with larger data loading, or to provide longer recording duration.

Note 6 The NQE-3163B is used for retro-fit between the LAN cable and the Fixed Capsule where necessary.

Note 7 The FBH-40 Float Free Bracket is an OEM unit supplied by Jotron AS for use with the NDH-339 Float Free Capsule and contains a heating element.

Note 8 This approval remains valid for equipment including subsequent minor software amendments which have been been formally accepted in accordance with the TÜV SÜD Testing and Certification Regulations.

Note 9 (EU)2019/1397 gives a last placing on board date of 29/08/2021 for equipment approved against the test standards listed above. See Conditions of Validity.

4 U.S. Coast Guard Number

This product has been assigned U.S. Coast Guard Module B number

165.150/EC2443

To note type approval to Module B only as it pertains to obtaining US Coastguard approval as allowed by the "Agreement between the European Community and the United States of America on Mutual Recognition of Certificates of Conformity for Marine Equipment" signed February 18th, 2019

5 Conditions of Validity

This certificate ceases to be valid if the manufacturer makes any changes or modifications to the approved equipment, which have not been notified to, and agreed with TÜV SÜD DANMARK ApS or a person appointed by TÜV SÜD DANMARK ApS to perform that role.

Should the specified regulations (internal conventions and the relevant resolutions and circulars of the IMO) or standards be amended and enforced through an Implementing Regulation during the validity of this certificate, the product(s) is/are to be reapproved prior to it/them being placed on the market or onboard vessels to which the amended regulations or standards apply.

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 Annex B of the directive is fully complied with and controlled by a written inspection agreement with a notified body.

Signature: T. J. Twynam Date: 2020-05-19

(Tom Twynam)

On behalf of TÜV SÜD DANMARK ApS