

EC-TYPE EXAMINATION CERTIFICATE

Application of: Council Directive 96/98/EC of 20 December 1996 on Marine Equipment as amended by directive 2014/93/EU, issued as "Forskrift om Skipsutstyr" by the Norwegian Maritime Directorate. This Certificate is issued by DNV GL AS under the authority of the Government of the Kingdom of Norway.

This is to certify:**That the Track control system**

with type designation(s)

JRC JAN-7201/9201 ECDIS TCS TYPE YDK PT900 CAT-C

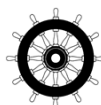
Issued to

**Japan Radio Co., Ltd.
Mitaka Tokyo, Japan**

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

Annex A.1, item No. A.1/4.33 and Annex B, Module B in the Directive. SOLAS 74 as amended, Regulation V/18 & V/19, IMO Res A.694(17) and IMO Res MSC. 74(69) & 191(79)

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

**Høvik, 2015-10-05
for DNV GL AS**This Certificate is valid until
2020-10-04Notified Body No.: **0575**

**Vidar Dolonen
Head of Department**DNV GL local office:
Yokohama

**Kwang Whan Cho
Surveyor**

Product description

The track control system, JRC JAN-7201/9201 ECDIS TCS TYPE YDK PT900 CAT-C, consists of following units.

- Japan Radio Co., Ltd. – ECDIS JAN-7201/JAN-9201 and
- Yokogawa Denshikiki Co., Ltd. – Heading Control System PT900D, PT900A and PT900A PLUS

Japan Radio Co., Ltd. – ECDIS JAN-7201/JAN-9201

Description	Components	Location	Remark
Monitor unit	NWZ-207	Protected	19 inch
	NWZ-208	Protected	26 inch
Keyboard operation unit	NCE-5625	Protected	Option
Track ball operation unit	NCE-5605	Protected	-
Central control unit	NDC-1590	Protected	-
Power supply unit	NBD-913	Protected	-
Sensor LAN unit	NQA-2443	Protected	-
Junction Box	NQE-1143	Protected	-
Software versions	- Base application software version of ECDIS: 01.10.XXX - Application software version of Track Control System in ECDIS: 01.XX		

Yokogawa Denshikiki Co., Ltd. – Heading Control System PT900D, PT900A and PT900A PLUS

Description	Components	Model	PCB Module	Software versions	Location
AP CDU (Autopilot Control & Display Unit)	MPH490	PT900D or	V8225AV	V8225HU A.xx	Protected
			V8225AF	V8225HX A.xx	Protected
		PT900A or	V8225AD	V8225HV A.xx	Protected
			V8225AG	V8225HY A.xx	Protected
		PT900A PLUS	V8225AW	V8225HW A.xx	Protected
			V8225AH	V8225HZ A.xx	Protected
Annunciator unit	MPH690	-	V8225BC	V8225DY A.xx	Protected
System Selector	MPH790	-	-	-	Protected
Mode Selector	MPH791	-	V8225EC	V8225EU A.xx	Protected
MCU (Main control unit)	MPH291	-	V8225BQ	V8225BX A.xx	Protected
			V8225FC	V8225FD A.xx	Protected
NAV I/F unit (Navigation interface unit)	MPT590	-	V8225FT	V8225FU A.xx	Protected

Application/Limitation

- The system complies with the IMO requirement for Category C track control system
- The equipment identified on the production description shall hold a valid type approval certificate.
- The system shall be connected to an alarm transfer system for transferring of back-up navigator alarms.
- The installation shall be verified and tested onboard according to manufacturer installation instruction

Note: MFD (Multi-Function Display) function is not scope of work and assessed as part of this certification.

Job Id: **344.1-004656-1**
Certificate No: **MEDB0000075**

Type Examination Documentation

DNVGL No.	Drawing No.	Rev.	Title
1	-	-	Documentation for Track Control Systems (includes MED Certificate, HCS: MED-B-9674, ECDIS: BABT-MED000061 issue 2 and BABT-MED000062 issue 2)
2	-	-	Installation Manual
3	-	-	Maintenance manual
4	WW-000001090	Ori.	IEC61162-1 test report for ECDIS
5	75923142 Report 04 Issue 1	-	Test Report (IEC60945) for JAN-7201 ECDIS
6	75928362 Report 02 Issue 1	-	IEC62288 (Ed.2) test report for ECDIS
7	75924108 Report02 Issue1	-	IEC62288 (Ed.1) test report for ECDIS
9	-	-	Document for electrical isolation (IEC61162-1/IEC61162-2)
12	WW-000001438	-	TCS Performance test result (IEC62065, IEC61162-2)_witnessed
15	13-325(E)	-	Test Report for compass safety distance ECDIS
17	EMC14115	-	HCS EMC test report
18	2A14056	-	HCS Environmental Test Report
19	2A14084	-	HCS Test Report (IP)
20	14-161(E)	-	HCS Test Report (compass safety)_witnessed
21	YDK-D02-aa-13-073	2	HCS Performance Test_witnessed.
22	IM 80B20T01E	-	User's Manual (HCS)
23	YDK-J01-GZ-14-003	-	FMEA Check Sheet (HCS)
24	YDK-D02-AA-14-064	-	HCS Test Procedure (for pending items)_witnessed
25	7ZPNA4538	1	Instruction Manual for Track control system
28	-	-	Data of electrical isolation
29	75923142 Report 03 Issue 2	-	Test report (IEC60945) for JAN-9201 ECDIS

Tests carried out

Marking of product

The manufacturer and Type Designation to be applied to the equipment in a clearly visible location and in addition the equipment shall be marked with serial number, safe distance to magnetic compass, power consumption and/or supply voltage.

Mark of Conformity

The manufacturer is allowed to affix the Mark of Conformity according to Article 11 in the Council Directive 96/98/EC on Marine Equipment and shall issue a Declaration of Conformity, only when the module D or E or F of Annex B in the same directive is fully complied with.

Module D: The quality system for production and testing shall be approved by the Notified Body.

Module E: The quality system for inspection and testing shall be approved by the Notified Body.

Module F: Compliance of the products to type as described in this EC Type-Examination Certificate must be verified by the Notified Body who also shall issue a Certificate of Conformity.

USCG Approval

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.



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