

EC-TYPE EXAMINATION CERTIFICATE (MODULE B)

Certificate no.:
MEDB00004X6
Revision no.:
5

Application of: Directive 2014/90/EU of 23 July 2014 on marine equipment (MED). This Certificate is issued by DNV SE based on the notification of the Federal Maritime and Hydrographic Agency of Germany.

This is to certify:

that the **Voyage data recorder (VDR)**

with type designation(s)
HLD-VDR600, HLD-VDR700

issued to

Jiangsu Highland Integration Technology Co.,Ltd.
Nantong, China

is found to comply with the Implementing Regulation (EU) 2024/1975 for
Item no. **MED/4.29** (Row 2 of 2)

according to the following requirements:

SOLAS 74 Reg. V/20, IMO Res. A.694(17), IMO Res. MSC.191(79), IMO Res. MSC.302(87), IMO Res. MSC.333(90), SOLAS 74 Reg. V/18, SOLAS 74 Reg. X/3, IMO Res. MSC.36(63)-(1994 HSC Code) 13, IMO Res. MSC.97(73)-(2000 HSC Code) 13

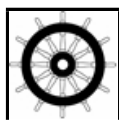
Further details of the equipment and conditions for certification are given overleaf.

Date of issue: **2025-08-28**

Expiry date: **2029-06-04**

DNV local unit:
Nantong

Approval Engineer:
Jörg Rebel



Notified Body
no.: **0098**



for **DNV SE**

Digitally Signed By:

Christine Mydlak-Röder

Christine Mydlak-Röder
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 European Community and the United States of America on Mutual Recognition of Certificates of Conformity for Marine Equipment, signed February 27th, 2004, and amended by Decision No 1/2023 dated May 26th, 2023.

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 SE 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.

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 USD 300 000.

Product description

Please see Appendix: Product Description

Application/Limitation

HLD-VDR600 and HLD-VDR700 are in compliance with IMO Res. MSC.333(90), as amended by Res. MSC.494(104), where installed with float-free capsules HLD-FFC600A or HLD-FFC660A or HLD-FFC680A.

Type Examination documentation

Please see Appendix: Type Examination Documentation

Tests carried out

- Environmental testing: IEC 60945 (2002) incl. Corrigendum 1 (2008)
- Serial interface testing: IEC 61162-1 (2016), IEC 61162-2 (1998) and IEC 61162-450 (2018)
- Presentation testing: IEC 62288 (2021)
- Bridge alert management testing: IEC 62923-1 (2018) and IEC 62923-2 (2018)
- Performance testing for VDR (incl. float-free capsule): IEC 61996-1 (2013) incl. Amendment 1 (2021)

Marking of product

According to IEC 60945, Sect.4.9:

The product to be marked with following information, where practicable:

- Identification of the manufacturer,
- Equipment type number or model identification under which it was type tested,
- Serial number of the unit,
- Compass safe distance.

Alternatively, the marking may be presented on a display at equipment start-up, and in case of fixed equipment compass safe distance may be given in the equipment manual.

APPENDIX

Type Examination documentation

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Document No.	Rev.	Title
A13-081-ZC-01	2014-03-27	Report: Tests acc. to IEC 60945
A13-081-ZC02	2014-03-12	Report: Low temperature fire test acc. to IEC 61996-1 and shock test acc. to IEC 61195
HLD-VDR600_GL_0614	2014-06-12	Report: Tests acc. to IEC 61996-1, IEC 61162-1/-2 and IEC 62288 Ed.1
KS-2014-04100	2014-04-09	Report: Audio tests acc. to IEC 61996-1
JECZ S20140331	2014-05-20	Report: Tests of float-free recording medium acc. to IEC 61097-2 and IEC 60945
14/104	2014-04-10	Report: Tests for float-free recording medium VEP8V acc. to C/S T.007
Y(H)-2014-001	-	Report: Deep sea pressure test for fixed protective data recording capsule acc. to IEC 61996-1
Y(H)-2014-002	-	Report: Sea water immersion test for fixed protective data recording capsule acc. to IEC 61996-1
Y(H)-2014-003	-	Report: Penetration test for for fixed protective data recording capsule acc. to IEC 61996-1
Y(H)-2014-015	-	Report: High temperature fire test for fixed protective data recording capsule acc. to IEC 61996-1
HLD2600FW	1.0	HLD-VDR600 Service Manual
HLD2600DC	1.0	HLD-VDR600 Investigation Authority Manual
RD-145-0601	2014-06-20	Report: Microphone free-field tests acc. to IEC 61996-1
XDsm2014-0205(1/2)		Report: Video test report acc. to IEC 61996-1
-	2019-03-13	Report: Test of VDR600 hard disk
DNV-07-21-HLD-VDR600	01D, 2022-07-21	Report: Tests acc. to IEC 62923-1/-2 and IEC 61162-450 Ed.2
MEDB00001HM	Latest rev.	Certificate: DNV, Test reports for FFC660A
E21187.00	2022-02-10	Report: Nemko, Tests for Tron 40VDR AIS acc. to IEC 61996-1 (2013) incl. Amd.1 (2021)_E21187.00_2022-02-10_IEC 61996-1 + Amd1
23/581	2024-09-01	Report: Tests for float-free recording medium VEP8B acc. to C/S T.007
202407043-2	2	Report: JBDTC, Tests for HLD-VDR700 acc. to IEC 60945, 7, 8.2 to 8.4, 8.7, 8.8, 9 to 11 and 12.1
(2025) DZI0025	2025-05-14	Report: FQII, Tests for HLD-OPU700 acc. to IEC 62288, 4.4.1, 4.6.1, 7.2.1 and 7.2.3
JECZ S202504001	2025-06-22	Report: JECZ, Tests for HLD-FFC600A acc. to IEC 61097-2 (2021)
-	2025-04-18	Statement: CETC, Corrosion waiver acc. to IEC 60945, 8.12.1
HLD2600AZ	2.3	Manual: Installation of HLD-VDR600
HLD2600CZ	2.3	Manual: Operation of HLD-VDR600
HLD6000AZ	2.3	Manual: Installation of HLD-VDR700
HLD6000CZ	2.3	Manual: Operation of HLD-VDR700



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APPENDIX

Product Description

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The voyage data recorder HLD-VDR600 and HLD-VDR700 consists of following equipment:

<i>Component</i>	<i>Type</i>	<i>Software version</i>
<u>HLD-VDR600:</u>		
Main Unit (MU) including	HLD-MU600	2.3.x
one Long-term Data Recording unit (LRU)	HLD-LRU600	2.3.x
and Reserve Power Source (RPS)	HLD-RPS600	
Serial Data Acquisition Unit (DAU)	HLD-DAU600	2.3.x
Non-Standard Data Acquisition Unit (NAU)	HLD-NAU600	2.3.x
Video Acquisition Unit (VAU) (optional)	HLD-VAU600	2.3.x
Operator Unit (OPU)	HLD-OPU600	2.0.x
<u>HLD-VDR700:</u>		
Main Unit (MU) including	HLD-MU700	2.3.x
one Long-term Data Recording unit (LRU)		
and Reserve Power Source (RPS)	HLD-RPS600	
Operator Unit (OPU)	HLD-OPU700	2.0.x
Video Acquisition Unit (VAU) (optional)	HLD-VAU700	2.3.x
Extended Audio Acquisition Unit (EAU) (optional)	HLD-EAU700	2.3.x
Data Acquisition Unit (DAU)* (optional)	HLD-DAU700	2.3.x
	or	
	or	
	or	
	or	
	HLD-DAU710	
	HLD-DAU720	
	HLD-DAU730	
	HLD-DAU740	
<u>HLD-VDR600 and HLD-VDR700:</u>		
Fixed Protective Data Recording Capsule (PDC)	HLD-PDC600	2.3.x
with Underwater Locating Device (ULD)	HLD-ULD601	
	or	
	or	
	HLD-ULD602	
	HLD-ULD603	
Float-free Data Recording Capsule (FFC)	HLD-FFC600A	2.3.x
with Battery Pack (BTP)	HLD-BTP600A	
and Hydrostatic Release Unit (HRU)	HLD-HRU600A	OR
Float-free Data Recording Capsule (FFC)	HLD-FFC660A	2.3.x
with Battery Pack (BTP)	HLD-BTP660A	
and Hydrostatic Release Unit (HRU)	HLD-HRU660A	OR
Float-free Data Recording Capsule (FFC)	HLD-FFC680A	2.3.x
with Battery Pack (BTP)	HLD-BTP680A	
and Hydrostatic Release Unit (HRU)	HLD-HRU680A	
Capsule Junction Box (CJB)	HLD-CJB600	
Indoor Microphones (MIC)	HLD-MIC600	
Outdoor Microphones (MIC)	HLD-MIC610	
Playback Software	Version 2.x	
Configuration Software	Version 2.x	

* Note:

HLD-DAU700: 64 x switch input and 8 x analogue input (voltage or current)

HLD-DAU710: 64 x switch input and 8 x serial input (IEC 61162-1/-2)

HLD-DAU720: 64 x switch input, 8 x analogue input (voltage or current) and 8 x serial input (IEC 61162-1/-2)

HLD-DAU730: 64 x switch input and 16 x serial input (IEC 61162-1/-2)

HLD-DAU740: 8 x analogue input (voltage or current) and 8 x serial input (IEC 61162-1/-2)