

EC-TYPE EXAMINATION CERTIFICATE (MODULE B)

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

This is to certify:

That the Voyage data recorder (VDR) and Simplified voyage data recorder (S-VDR)

with type designation(s)
HLD-VDR600 and HLD-SVDR600

Issued to

Beijing Highlander Digital Technology Co., LTD
Beijing, China

is found to comply with the requirements in the following Regulations/Standards:
Regulation **(EU) 2018/773,**

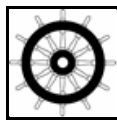
item No. MED/4.29. SOLAS 74 as amended, Regulations V/18, V/20 & X/3, IMO Res. A.694(17), IMO Res. MSC.36(63), IMO Res. MSC.97(73), IMO Res. MSC.191(79), IMO Res. MSC.302(87), IMO Res. MSC.333(90)
item No. MED/4.47. SOLAS 74 as amended, Regulation V/20, IMO Res. A.694(17), IMO Res. MSC.163(78), IMO Res. 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 **2024-07-09.**

Issued at **Hamburg** on **2019-07-10**

DNV GL local station:
Tianjin



Notified Body
No.: **0098**

Approval Engineer:
Jörg Rebel



for **DNV GL SE**
Digitally Signed By: Mydlak-Röder, Christine
Location: DNV GL Hamburg, Germany
on behalf of

Gerhard Aulbert
Head of Notified Body

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 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 This certificate remains valid unless suspended, withdrawn, recalled or cancelled.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.



Product description

The voyage data recorder HLD-VDR600 and simplified voyage data recorder HLD-SVDR600 consist of following equipment:

<i>Component</i>	<i>Type</i>	<i>Software version</i>
Main Unit (MU) including	HLD-MU600	2.x
one Long-term Data Recording unit (LRU) (opt. for S-VDR)	HLD-LRU600	2.x
and Reserve Power Source (RPS)	HLD-RPS600	
Serial Data Acquisition Unit (DAU)	HLD-DAU600	2.x
Non-Standard Data Acquisition Unit (NAU) (opt. for S-VDR)	HLD-NAU600	2.x
Video Acquisition Unit (VAU)	HLD-VAU600	2.x
Fixed Protective Data Recording Capsule (PDC)	HLD-PDC600	2.x
with Underwater Locating Device (ULD)	HLD-ULD601	OR
	HLD-ULD602	OR
	HLD-ULD603	
Operator Unit (OPU)	HLD-OPU600	2.x
Float-free Data Recording Capsule (FFC) (opt. for S-VDR)	HLD-FFC600	2.x
with Battery Pack (BTP)	HLD-BTP600	
and Hydrostatic Release Unit (HRU)	HLD-HRU600	OR
Float-free Data Recording Capsule (FFC) (opt. for S-VDR)	HLD-FFC660	2.x
with Battery Pack (BTP)	HLD-BTP660	
and Hydrostatic Release Unit (HRU)	HLD-HRU660	
and Cable Cutter	HLD-CCU660	
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	

Application/Limitation

None

Type Examination documentation

DNV GL No	Document ID	Rev.	Description
22	20140929-01	2015-03-05	Manual: HLD-FFC660 User's Manual
21		2019-03-13	Report: Test of VDR600 hard disk
20	14/879	2014-12-24	Report: Tests of float-free recording medium NEB-2000C (extracted version) acc. to IEC 61097-2
19	XDsm2014-0205(1/2)		Report: Video test report acc. to IEC 61996-1
15	RD-145-0601	2014-06-20	Report: Microphone free-field tests acc. to IEC 61996-1
14		2013-08-16	Manual: HLD-VDR600 Investigation Authority Manual
13		2013-08-16	Manual: HLD-VDR600 Operation Manual
12		2013-08-16	Manual: HLD-VDR600 Installation Manual
11		2013-08-16	Manual: HLD-VDR600 Service Manual
10	Y(H)-2014-015	-	Report: High temperature fire test for fixed protective data recording capsule acc. to IEC 61996-1
9	Y(H)-2014-003	-	Report: Penetration test for for fixed protective data

DNV GL No	Document ID	Rev.	Description
			recording capsule acc. to IEC 61996-1
8	Y(H)-2014-002	-	Report: Sea water immersion test for fixed protective data recording capsule acc. to IEC 61996-1
7	Y(H)-2014-001	-	Report: Deep sea pressure test for fixed protective data recording capsule acc. to IEC 61996-1
6	14/104	2014-04-10	Report: Tests for float-free recording medium VEP8V acc. to C/S T.007
5	JECZ S20140331	2014-05-20	Report: Tests of float-free recording medium acc. to IEC 61097-2 and IEC 60945
4	KS-2014-04100	2014-04-09	Report: Audio tests acc. to IEC 61996-1
3	HLD-VDR600_ GL_0614	2014-06-12	Report: Tests acc. to IEC 61996-1, IEC 61162-1/-2 and IEC 62288 Ed.1
2	A13-081-ZC02	2014-03-12	Report: Low temperature fire test acc. to IEC 61996-1 and shock test acc. to IEC 61195
1	A13-081-ZC-01	2014-03-27	Report: Tests acc. to IEC 60945

Tests carried out

- Performance testing for VDR: IEC 61996-1 (2013) incl. Corrigendum 1 (2014)
- Performance testing for S-VDR: IEC 61996-2 (2007)
- Environmental testing: IEC 60945 (2002) incl. Corrigendum 1 (2008)
- Serial interface testing: IEC 61162-1 (2016), IEC 61162-2 (1998) and IEC 61162-450 (2011) with Am.1 (2016)
- Presentation of navigational information: IEC 62288 (2014)

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.

According to Article 10 of the Council Directive (MED):

- Wheel mark to be affixed visibly, legibly and indelibly to the product or to its data plate and, where relevant, embedded in its software. Where that is not possible or not warranted on account of the nature of the product, it shall be affixed to the packaging and to the accompanying documents.
- Wheel mark to be affixed at the end of the production phase.

For specific products, manufacturers may use an appropriate and reliable form of electronic tag instead of, or in addition to, the wheel mark.

END OF CERTIFICATE