EC-TYPE EXAMINATION CERTIFICATE (MODULE B)

Certificate no.:
MEDB000090D

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 Simplified voyage data recorder (S-VDR)

with type designation(s)
HLD-SVDR600

issued to
Jiangsu Highland Integration Technology Co.,Ltd.
Nantong, Jiangsu, **China**

is found to comply with the requirements in the following Regulations/Standards:
Regulation **(EU) 2023/1667,**
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 **2029-06-04**.

Issued at **Hamburg** on **2024-06-05**

DNV local unit:
Nantong

Approval Engineer:
Jörg Rebel

Notified Body
No.: **0098**

for **DNV SE**

Mydlak-Röder, Christine
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 This certificate remains valid unless suspended, withdrawn, recalled or cancelled.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 300,000 USD.

Product description

The simplified voyage data recorder HLD-SVDR600 consists of following equipment:

Component	*Type*	*Software version*	
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		OR
Float-free Data Recording Capsule (FFC) (opt. for S-VDR)	HLD-FFC660A	2.x	
with Battery Pack (BTP)	HLD-BTP660A		
and Hydrostatic Release Unit (HRU)	HLD-HRU660		
Float-free Data Recording Capsule (FFC) (opt. for S-VDR)	HLD-FFC680A	2.x	
with Battery Pack (BTP)	HLD-BTP680		
and Hydrostatic Release Unit (HRU)	HLD-HRU680		
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

Float-free Data Recording Capsules (FFC) of types HLD-FFC600 and HLD-FFC660 are not allowed to be installed in its functional positions on board ships sailing under EU-flag for the first time after 2025-07-01.

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 S-VDR: IEC 61996-2 (2007)
- Performance testing for float-free capsules (FFC):
  - HLD-FFC600 and HLD-FFC660: IEC 61996-1 (2013)
  - HLD-FFC660A and HLD-FFC680A: IEC 61996-1 (2013) incl. Amendment 1 (2021)

Type Examination documentation

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.

END OF CERTIFICATE