

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 Radar equipment CAT 1**with type designation(s)
HLD-RADAR 900

Issued to

Beijing Highlander Digital Technology Co., LTD
Beijing, China

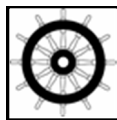
is found to comply with the requirements in the following Regulations/Standards:

Regulation **(EU) 2017/306,****item No. MED/4.34. SOLAS 74 as amended, Regulations V/18 & V/19, IMO Res. A.278(VIII),
IMO Res. A.694(17), IMO Res. MSC.191(79), IMO Res. MSC.192(79), IMO Res. MSC.302(87),
ITU-R M.1177-4 (04/11)**

Manufacturers authorised representative

ROCKSON Automation GmbH
Wittland 2 – 4
24109 Kiel, Germany

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

This Certificate is valid until **2022-04-05**.Issued at **Hamburg** on **2017-04-06**DNV GL local station:
TianjinApproval Engineer:
Harald BluhmNotified Body
No.: **0098**for **DNV GL SE**.....
Sven Dudszus
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.

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 This certificate remains valid unless suspended, withdrawn, recalled or cancelled.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 HLD-RADAR 900 comprising of the following equipment:

1. RADAR Computer: HLD-MCU 200, or HLD-MCU 600
Software: Windows7 Operating System
Software version: 1.x
2. Display unit:
Monitor TFT 26", Type: HLD-DU135, or, HLD-DU141
3. Power Conversion Unit: HLD-PCU600
4. Human Interface Unit: HLD-IU600
Software version: 1.x
5. Radar Antenna: HLD-AT106, or, HLD-AT108, or, HLD-AT112
6. Radar Transceiver: HLD-TU125, or, HLD-TU130
Software version: 1.x

Optional equipment:

7. UPS
UPS (SURT1000 XLIM) Type: PC SMART-UPS RT 1000VA 230V
UPS (SURTD2200 XLIM) Type: APC SMART-UPS RT 2200VA 230V
8. Lan Switch: HLD-LS600
9. Signal Convert Unit: HLD-SCU600
Software version: 1.x

Type Examination documentation

9065-16-39255-62388 - IEC 62388
9065-16-39255-62288 - IEC 62288
60945 test report-SIPAI - IEC 60945

Document:

OPERATION MANUAL HLD1800CZ V1.x
INSTALLATION MANUAL HLD1800AZ V1.x

Tests carried out

IEC 60945 (2002) incl. IEC 60945 Corr. 1 (2008), IEC 61162 series: IEC 61162-1 ed4.0 (2010-11), IEC 61162-2 ed1.0 (1998-09), IEC 61162-450 ed1.0 (2011-06), IEC 62388 Ed. 2.0 (2013), IEC 62288 Ed. 2.0 (2014-07).

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.