DNV·GL

Certificate No:
MEDB00006HH

EC-TYPE EXAMINATION CERTIFICATE (MODULE B)

Application of: Directive 2014/90/EU of 23 July 2014 on marine equipment (MED), issued as "Forskrift om Skipsutstyr" by the Norwegian Maritime Authority. This Certificate is issued by DNV GL AS under the authority of the Government of Norway.

This is to certify:

That the Fixed fire detection and fire alarm systems components for control stations, service spaces, accommodation spaces, cabin balconies, machinery spaces and unattended machinery spaces: Heat detectors – Point detectors

with type designation(s)
Heat detector JINDOGAE-HT

Issued to
B-I INDUSTRIAL CO., LTD.
Busan, Republic of Korea

is found to comply with the requirements in the following Regulations/Standards:
Regulation **(EU) 2020/1170,**
item No. MED/3.51c. SOLAS 74 as amended, Regulation II-2/7 & X/3, 1994 HSC Code 7, 2000 HSC Code 7, FSS Code 9 and IMO MSC.1/Circ.1242

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

This Certificate is valid until **2025-09-23**.
Issued at **Høvik** on **2020-09-24**

DNV GL local station:
Gimhae Station

Approval Engineer:
Frode Nygård

Notified Body
No.: **0575**

for **DNV GL AS**

Roald Vårheim
Head of Notified Body

NORWEGIAN ACCREDITATION PROD 019

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 AS 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 This certificate remains valid unless suspended, withdrawn, recalled or cancelled.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 GL AS, its parent companies and subsidiaries as well as their officers, directors and employees ("DNV GL") 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.

© DNV GL 2014. DNV GL and the Horizon Graphic are trademarks of DNV GL AS.

Product description

The basic structure of JINDOGAE-HT heat detector consists of heat detecting part and its base, isolator part, isolator base, waterproof base. Heat detector part composed of printed circuit board and plastic enclosure is connected to a patented base with its own connection structure to complete connection between terminals.
Rating voltage: 24VDC (17÷26VDC).

Application/Limitation

Ex-certification is not covered by this certificate. Application in hazardous area to be approved in each case according to Ex-Certification**/** Special Condition for Safe Use listed in valid Ex-certificate issued by a notified/recognized Certification Body.

The equipment are found to comply with following location/application dependent requirements (for definition of each of the location classes, see below the table):

MODEL	TEMPERATURE	VIBRATION	EMC	ENCLOSURE
JINDOGAE-HT	TEM-A	VIB-A	EMC-B	IP44

Definition of the location classes with reference to relevant standards:
Temperature:
TEM-A: Location (+5°C to +55°C) (ref. IEC 60092-504 (2016) table 1 item 6-7)
Vibration:
VIB-A: For general applications: ±1mm / 0.7g (ref. IEC 60092-504:2016 table 1 item 10)
EMC:
EMC-B: All locations incl. bridge and open deck (ref. IEC 60092-504:2016 table 1 item 13-20)
Enclosure:
IP44 (*ref. IEC 60529: 2006)*

Type Examination documentation

Tests carried out

Applicable tests according to:
- EN 54-5:2017
- IEC 60092-504:2016
- IEC 60533:2015

Marking of product

For identification to this type examination certificate the products shall be marked with:
- Manufacturer's name or trade mark
- Type designation
- Mark of Conformity (wheel mark), followed by
  - identification number of the NoBo involved in production control (MED D)
  - the year the mark is affixed
  - Example: 0575/2020