

TYPE EXAMINATION CERTIFICATE – EC MODULE B

Certificate no.:
MEDB00009CT

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 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)
JTW-ZDC-501, JTW-ZDC-502, JTW-ZDF-501(Ex)

issued to
WUXI BRIGHTSKY ELECTRONIC CO.,LTD
Wuxi City, China

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

Regulation (EU) 2025/1533,
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, IGF Code 11 and IMO MSC.1/Circ.1242

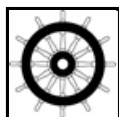
Further details of the equipment and conditions for certification are given overleaf.

This Certificate is valid until **2031-02-04**.

Issued at **Høvik** on **2026-02-05**

DNV local unit:
Jiangyin NB & CMC

Approval Engineer:
Heinz Scheffler



for **DNV AS**

Notified Body
No.: **0575**

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 This certificate remains valid unless suspended, withdrawn, recalled or cancelled.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

Heat detectors for use with Brightsky's interactive fire alarm system JB-QBC-501.

Type	Description	Degree of protection
JTW-ZDC-501	Addressable point heat detector (class A2S)	IP44
JTW-ZDC-502	Addressable point heat detector (class CS)	IP44
JTW-ZDF-501(Ex)	Ex - Conventional point heat detector (class A2S)	IP44

Technical data:

- built-in temperature sensor
- Max. 10s response time
- built-in isolator (comply with EN 54-17)
- comply with EN 54-5 class A2S or CS
- built-in indicator for alarm.

Software-Version:

- JTW-ZDC-501_V1.0.AOP2
- JTW-ZDC-502_V1.0.AOP2
- JTW-ZDF-501_V1.0.HEX

Application/Limitation

The equipment is 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
JTW-ZDC-501 JTW-ZDC-502 JTW-ZDF-501(Ex)	TEM-D	VIB-A	EMC-B

Definition of the location classes with reference to relevant standards:

- **Temperature:** TEM-D: Protected (-25°C to +70°C) (ref. IEC 60092-504:2016 table 1 item 6-7)
- **Vibration:** VIB-A: For general applications etc.(±1.0mm/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)

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

Type Examination documentation

hidden

Tests carried out

- Applicable tests according to:
- EN 54-5:2017+A1:2018
- 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 trademark
- 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: 0575/2025

END OF CERTIFICATE