DNV·GL

Certificate No:
MEDB00006D0

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: Short circuit isolators

with type designation(s)
LIC-BS10, DB-BS10/A

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

is found to comply with the requirements in the following Regulations/Standards:
Regulation **(EU) 2019/1397,**
item No. MED/3.51g. 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 **2025-01-23**.

Issued at **Høvik** on **2020-01-24**

DNV GL local station:
Jiangyin CMC

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 This certificate remains valid unless suspended, withdrawn, recalled or cancelled.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

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Job Id: **344.1-010311-1**
Certificate No: **MEDB00006D0**

Product description

Short circuit isolators designed according to EN54 for use with Brightsky's interactive fire alarm system JB-QBC-BS10.

Type	Description	Degree of protection
LIC-BS10	Isolator (Loop-protection)	IP44
DB-BS10/A	Detector isolating base (Loop-protection)	-

Application/Limitation

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.

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
LIC-BS10 DB-BS10/A	TEM-D	VIB-B	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-B: On reciprocating machines etc.(±1.6mm/4.0g) (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)

Type Examination documentation

Tests carried out

EN 54-17:2005 incl. AC:2007
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