

TYPE EXAMINATION CERTIFICATE – EC MODULE B

Certificate no.:
MEDB00009DZ

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: Flame detectors – Point detectors

with type designation(s)
FL500 UV/IR Flame Detector

issued to
General Monitors, Inc.
Irvine, CA, USA

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

Regulation (EU) 2024/1975,

item No. MED/3.51e. 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

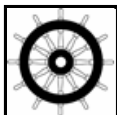
Further details of the equipment and conditions for certification are given overleaf.

This Certificate is valid until **2030-06-26**.

Issued at **Høvik** on **2025-06-27**

DNV local unit:
Certification & Inspection Services

Approval Engineer:
Ståle Sneen



Notified Body
No.: **0575**

for **DNV AS**

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 This certificate remains valid unless suspended, withdrawn, recalled or cancelled.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

Model FL500 is an ultraviolet/infrared (UV/IR) flame detector. It detects the ultraviolet and infrared spectral regions of flame to produce a system which is highly immune to false alarms caused by lightning, arc-welding, hot objects, and other sources of radiation.

The FL500 uses a UV radiation-sensitive phototube and an IR detector to identify fires. The FL500 is available with the following outputs: 4 to 20 mA signal, Immediate Alarm Low (relay), Time-delayed Alarm High (relay), RS-485 Modbus RTU, and HART 7 communication.

Place of manufacture

General Monitors Ireland Ltd.
Ballybrit Business Park
Galway, Ireland

MSA – The Safety Company
1000 Cranberry Woods Drive,
Cranberry Township, PA 16066

Application/Limitation

Ex installations 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.

Ex-certification is not covered by this certificate and the following paragraph, which is for information only, is based on information received from the manufacturer, but not verified by DNV.

Information on Ex-Certification received from manufacturer – Not verified by DNV		
Equipment	Marking	Certificate No.
FL500	Ex db IIC T5 Gb Ex tb IIIC T100°C Db Ta: -55°C to +85°C IP66/IP67	IECEX CML 23.0013X

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

Model	Temperature	Vibration	EMC	Humidity	Enclosure
FL500	TEM-D	VIB-A	EMC-B	HUM-B	ENC-C IP66/IP67 Salt mist

Definition of the location classes with reference to relevant standards:

TEM-D Non-weather-protected (-25°C to +70°C) (ref. IEC 60092-504:2016 table 1 item 6-7)
VIB-A For general applications: ±1 mm/±0.7 g (ref. IEC 60092-504:2016 table 1 item 10)
EMC-B Bridge and open deck zone (ref. IEC 60092-504:2016 table 1 item 13-20)
HUM-B Damp heat, cyclic (ref. IEC 60092-504:2016 table 1 item 8)
ENC-C Non-weather-protected (ref. IEC 60092-504:2016 table 1 item 9 and 12)

Type Examination documentation

Tests carried out

Applicable tests according to:

- EN 54-10:2002 + A1:2005,
- 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: 0575/2025