DNV·GL

Certificate No:
**MEDB00006A0**

# 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 & accom. spaces, cabin balconies, machinery spaces & unattended machinery spaces: Smoke detectors – Point detectors using scattered or transmitted light or ionization**

with type designation(s)
**MR601TEx, 601P-M, 601PH-M**

Issued to
## Tyco Fire & Security GmbH
**Neuhausen am Rheinfall, SH, Switzerland**

is found to comply with the requirements in the following Regulations/Standards:
Regulation **(EU) 2019/1397,**
**item No. MED/3.51d. 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 **2022-08-31**.

Issued at **Høvik** on **2019-12-10**

DNV GL local station:
**Manchester**

Approval Engineer:
**Nils Jarem**

Notified Body
No.: **0575**

for **DNV GL AS**

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 This certificate remains valid unless suspended, withdrawn, recalled or cancelled.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

Job Id: **344.1-010212-1**
Certificate No: **MEDB00006A0**

## Product description

| Type | Product code | Description |
|---|---|---|
| MR601TEx | 516.054.011 | High Performance Optical Smoke Detector (Intrinsically Safe) |
| 601P-M | 516.600.201 | Marine Optical Smoke Detector |
| 601PH-M | 516.600.202 | High Performance Optical Smoke Detector - Conventional (Marine) |

## Place of manufacture

Tyco Fire & Security Czech Republic s.r.o.
Ulice Osvobozeni 363, Rájecko
Czech Republic

## 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 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 |
|---|---|---|---|---|
| MR601TEx<br>601P-M<br>601PH-M | TEM-D | VIB-A | EMC-B | IP20 |

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: ±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 19-20)

## Type Examination documentation

## Tests carried out

EN 54-7: 2000 + A1: 2002 +A2: 2006.
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: 0575/2019