



Marine & Offshore

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This certificate is not valid when presented without the full attached schedule
composed of 7 sections
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Notified Body 2690 - MARINE EQUIPMENT DIRECTIVE 2014/90/EU

EC TYPE EXAMINATION CERTIFICATE

as per Module B of Directive 2014/90/EU of the European Parliament and of the Council of 23 July 2014 as transposed in the French Regulations and Commission Implementing Regulation (EU) 2022/1157 of 4 July 2022

This certificate is issued to:

DETECTION ELECTRONIQUE FRANCAISE

MASSY CEDEX - FRANCE

for the type of product

FIXED FIRE DETECTION AND FIRE ALARM SYSTEMS COMPONENTS [...] - HEAT DETECTORS: POINT DETECTORS

Addressable or Conventional Heat Detectors - Type: OA-T, OC-V, OC-VIEx and OCT75

Requirements:

IMO Res. MSC.36(63) -(1994 HSC Code)- as amended, 7

IMO Res. MSC.97(73) -(2000 HSC Code)- as amended, 7

IMO Res. MSC.98(73) -(FSS Code)- as amended, 9

IMO MSC.1/Circ.1242

EN 54-5:2017 incl. A1:2018

As applic., electrical and electronic installation in ships:

IEC 60092-504:2016

IEC 60533:2015

This certificate is issued on behalf of the French Maritime Authorities to attest that Bureau Veritas Marine & Offshore did undertake the relevant type-examination procedures for the product identified above which was found to comply with the relevant requirements of the Directive 2014/90/EU of the European Parliament and of the Council of 23 July 2014 as transposed in the French Regulations.

This certificate will expire on: 15 Jun 2028


For Bureau Veritas Marine & Offshore Notified Body 2690,

At BV LYON, on 15 Jun 2023,

Florian Aulen

This certificate was created electronically and is valid without signature



This certificate does not allow to issue the Declaration of Conformity and to affix the mark of conformity (wheelmark ) to the products corresponding to this type. To this end, the production-control phase module (D, E or F) of Annex II of the Directive is to be complied with and controlled by a written inspection agreement with a notified body.

This certificate remains valid until the date stated above, unless cancelled or revoked, provided the conditions indicated in the subsequent page(s) are complied with and the product remains satisfactory in service. This certificate will not be valid if the applicant makes any changes or modifications to the approved product, which have not been notified to, and agreed in writing with Bureau Veritas Marine & Offshore. Should the specified regulations or standards be amended during the validity of this certificate, the product(s) is/are to be re-approved prior to it/they being placed on board vessels to which the amended regulations or standards apply. Bureau Veritas Marine & Offshore is designated by the French Maritime Authority as a "notified body" under the terms of the French Regulations Division 140 Chapter 140-2. This certificate is issued within the scope of the General Conditions of Bureau Veritas Marine & Offshore available on the internet site www.veristar.com. Any Person not a party to the contract pursuant to which this document is delivered may not assert a claim against Bureau Veritas Marine & Offshore for any liability arising out of errors or omissions which may be contained in said document, or for errors of judgement, fault or negligence committed by personnel of the Society or of its Agents in establishment or issuance of this document, and in connection with any activities for which it may provide.

THE SCHEDULE OF APPROVAL

1. PRODUCT DESCRIPTION:

- Product model or type designation :
type **OA-T, OC-V, OC-VIE**x and **OCT75**

- Product description:
Addressable or Conventional Heat Detectors.

1.1 - Main Characteristics of OA-T Detector:

OA-T	: Addressable Detector.
Principle	: Point Detector using a Negative Temperature Coefficient Thermistor.
Additional Function	: Short circuit isolator function integrated in head of detector. : Transmitting Protocol DEFNET-D with 6 classes (A1S, A1R, A2S, A2R, BS and BR).
Class & Suffix - Static Temperature	: A1S/R - 62 °C, A2S/R - 68 °C, BS/R - 75 °C
Protection Index	: IP 32 Indoor
Working Temperature	: -25°C to 50°C (For A1R, A2R, A1S and A2S Classes) : -25°C to 65°C (For BR and BS Classes)
Power Supply	: 24 VDC (12 to 28 VDC)
Software Version	: 2.0x
Bases	: E0 (Standard), BRI (Industrial), EOLX

1.2 - Main Characteristics of OC-V Detector:

OC-V	: Conventional Thermovelocimetric Detector.
Principle	: Point Detector using a Negative Temperature Coefficient Thermistor.
Class & Suffix - Static Temperature	: A1R - 60°C
Protection Index	: IP 32 Indoor
Working Temperature	: -10°C to 50°C
Power Supply	: 20 VDC (13 to 27 VDC)
Software Version	: 1.1x
Bases	: E0 (Standard), BRI (Industrial), EOLX

1.3 - Main Characteristics of OC-VIE Detector:

OC-VIE	: Conventional Thermovelocimetric Detector
Principle	: Point Detector using a Negative Temperature Coefficient Thermistor
Class & Suffix - Static Temperature	: A1R - 60°C
Protection Index	: IP 32 Indoor
Working Temperature	: -20°C to +50°C
Power Supply	: 20 VDC (10 to 28 VDC)
Software Version	: 2.0.x
Ex Marking	: IIC ia T6 Ga, II 1 G

1.4 - Main Characteristics of OCT75 Detector:

OCT75	: Conventional Thermostatic Detector.
Principle	: Point Detector using a Negative Temperature Coefficient Thermistor.
Class & Suffix - Static Temperature	: BS - 75°C
Protection Index	: IP 32 Indoor
Working Temperature	: -10°C to 65°C
Power Supply	: 20 VDC (13 to 27 VDC)
Software Version	: 1.1x
Bases	: E0 (Standard), BRI (Industrial), EOLX

2. DOCUMENTS AND DRAWINGS:**FARE - DEF:**

- Drawings No. FA414E Ind. B dated 07/09/06. and FA464A Ind. B dated 25/10/06.
- OC-VIEx: BOM No. NOM217 Rev. B, dated Jul 4, 2014.
- Drawings No. FB321E Ind. B, dated Apr 23, 2014.
- Software Revision No. FIL_TRC05FEX, dated Jun 3, 2014.

For modification D0 version:**FARE-DEF:**

- OC-VIEx: Technical Booklet - Installation and Wiring No. DPC_NTP_481 Rev. D, dated Apr 17, 2023.
- OA-T: Technical Booklet - Installation and Wiring No. OATM_NTP_103 Rev. D, dated Apr 17, 2023.
- OC-V and OCT75: Technical Booklet - Installation and Wiring No. OCVTM_NTP_089 Rev. E, dated Apr 17, 2023.

3. TEST REPORTS:**CNPP:**

- OA-T: Test Reports No. DE 04 00 01 C dated 19 Jan. 2006 and No. DE 07 00 34 dated 18 Jan. 2008.
- OCT75: Test Report No. DE 04 00 04 dated 26 Nov. 2004 and Technical assessment No. DE 07 00 27 dated 21 Jan. 2008.
- OC-V: Test Reports No. DE 04 00 01 A dated 26 Nov. 2004 and No. DE 07 00 26 dated 21 Jan. 2008.
- OC-VIEx: Test Reports according to EN 54-5 No. DE 13 00 15, dated June 14, 2013 + DE150027, dated Sept 17, 2015
- OC-V Test Reports No. DE 07 00 26 A dated 05 Dec. 2016.
- OCT75 Test Reports No. DE 07 00 27 A dated 05 Dec. 2016.
- OA-T Test Reports No. DE 16 00 19 dated Jul 21, 2016.

EMITECH:

- Test Reports No. RS-030-M45-07-102417-3-A dated 08/11/07 and No. RC-030-M45-07-102417-1-A dated 06/11/07.
- Vibration Test Report No. R022-QUM-08-102031 dated 08/07/08.

LNE:

- Test Report No. P190832_DEC/1, dated 03-04-2019.

LCIE:

- Ex Certification No. LCIE 15 ATEX 3020 X Issue 0, dated Sep 10, 2015.

For modification D0 version:**CNPP:**

- OA-T: Cold Test Report No. LE 23 00 11, dated Apr 13, 2023; Additional tests report No. DE 07 00 34 C, dated Sep 27, 2022; EMC Test Report No. LM 22 00 82, dated Sep 07, 2022.
- OCT75: Additional tests report No. DE 07 00 27 B, dated Sep 29, 2022.
- OC-V: Additional tests report No. DE 07 00 26 B, dated Sep 29, 2022.
- OC-VIEx: Additional tests report No. DE 13 00 15 A, dated Sep 29, 2022.

4. APPLICATION / LIMITATION:

- 4.1 - As per Requirements of Regulations stated on the front page of this certificate.
- 4.2 - The equipment fulfils the EMC requirements for installation on the Bridge and Deck Zone.
- 4.3 - The equipment is not to be fitted in hazardous areas and refrigerated chambers.
- 4.4 - Prior to fit on board, assessment of compatibility or connectability with fire alarm unit is to be performed.
- 4.5 - Only Hardware and Software successfully tested together in compliance with the regulations as referred to in page one, according to the declaration of the manufacturer are covered by this certificate.
- 4.6 - For above OC-VIEx Detector :
In case of installation in Hazardous Area, a type approved I.S barrier, is to be fitted in safe Area, to limit the electrical power on the detection line.
The detection line must be equipped with fire detectors and/or manual call points with an ATEX certification.
All intrinsically safe wiring shall be kept separate from non-intrinsically safe wiring.
- 4.7 - The following component(s) shall comply with the requirements of MED2014/90/EU, as amended, and be wheelmarked:
- OA-T, OC-V, OC-VIEx and OCT75.

5. PRODUCTION SURVEY REQUIREMENTS:

5.1 - This certificate alone does not allow the applicant to issue the Declaration of Conformity and to affix the mark of conformity (wheelmark) to the products corresponding to this type. To this end, the production-control phase module D Production Quality Assurance or module E Product Quality Assurance or module F Product Verification of Annex II of the Directive is to be complied with and controlled by a written inspection agreement with a Notified Body.

5.2 - For information concerning the production phase modules, **DETECTION ELECTRONIQUE FRANCAISE (DEF) - FRANCE** has declared the following manufacturing site(s):

**FARE
ZA de la Guinette
Rue duhamel du monceau
45300 DADONVILLE
FRANCE**

6. MARKING OF PRODUCT:

6.1 - Maker's name or trademark,

- Serial number of the units,
- Equipment type number or model identification under which it was type-tested.
- Class of detector
- Standard N°
- Wiring terminal designation
- Software version N°

6.2 - Reference is made to MED 2014/90/EU chapter 2.

In particular Article 10.3 specifies that the wheelmark shall be followed by the identification number of the Notified Body involved in the production control phase (module D, E or F) and by the year in which the mark is affixed (4 digits or last 2 digits).

7. OTHERS:

7.1 - It is **DETECTION ELECTRONIQUE FRANCAISE (DEF)**'s responsibility to inform shipbuilders or their sub-contractors of the proper methods of fitting, use and general maintenance of the approved equipment and the conditions of this approval.

7.2 - This certificate supersedes the EC Type Examination Certificate No. 22127/C1 MED issued on 08 Jan 2021 by the Society.

*** END OF CERTIFICATE ***