



Marine & Offshore

Certificate number: 28547/C0 BV

File number: AP 4310

Product code: 3785H

*This certificate is not valid when presented without the full attached schedule composed of 7 sections*

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## TYPE APPROVAL CERTIFICATE

*This certificate is issued to*

**CONSILIUM MARINE & SAFETY AB**  
HISINGS BACKA - SWEDEN

*for the type of product*

**FLAME FIRE DETECTORS**

Addressable / Conventional IR Flame Detector  
Type, Salwico AC-IR-3Fq

### Requirements:

BUREAU VERITAS Rules for the Classification of Steel Ships  
BUREAU VERITAS Rules for the Classification of Offshore Units  
BUREAU VERITAS Rules for the Classification of Naval Ships  
EN 54-10:2002+A1:2005  
EN 54-17:2005.

EC Code : 21S

*This certificate is issued to attest that Bureau Veritas Marine & Offshore did undertake the relevant approval procedures for the product identified above which was found to comply with the relevant requirements mentioned above.*

**This certificate will expire on: 07 Sep 2028**

**For Bureau Veritas Marine & Offshore,**  
At BV COPENHAGEN, on 07 Sep 2023,  
Hans-erik ERICSSON

***This certificate was created electronically and is valid without signature***



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. 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.

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BV Mod. Ad.E 530 June 2017

This certificate consists of 3 page(s)

## THE SCHEDULE OF APPROVAL

### **1. PRODUCT DESCRIPTION:**

Addressable / Conventional Infrared Flame Detector, type **Salwico AC-IR-3Fq** (P/N 5200236-00A).

#### **1.1 - Main Characteristics:**

Principle:	Based on triple infrared wavelength sensors
Class	1, 2 and 3 (DIP Switch Setting)
Working Temperature	-25°C to +70°C
Power Supply	24 VDC Nominal
Software Version	N° 01.00.xx
Testing Standards	IEC 60092-504 & EN 54-10
Bases:	Salwico AC-IR-3Fq Conventional (P/N 5200235-00A) Salwico AC-IR-3Fq Addressable (P/N 5200237-00A) (*) Salwico AC-IR-3Fq Rugged Addressable (P/N 5100874-00A) (*)
Protection Index	Detector + Base: IP65 or IP66 (IP67 with locking screw)

(\*) Incorporates a short-circuit isolator complying with EN 54-17

### **2. DOCUMENTS AND DRAWINGS:**

#### **Consilium Marine:**

Data sheets N° 5200236-00A\_Salwico AC-IR-3Fq\_M\_EN\_2020\_K, N°5200235-00A\_SalwicoAC-IR-3Fq Base\_M\_EN\_2014\_C, N° 5200237-00A\_Salwico AC-IR-3Fq Addr Base\_M\_EN\_2017\_E and N° 5100874-00A\_AC-IR-3Fq Rugged Addr Base\_M\_EN\_2017\_A.

#### **Microdata Due:**

Part Lists R.M. No. 1103 dated 18.06.2010 Rev. A and R.M. No. 1081 dated 7.04.2009 Rev. A  
Drawings No. CM-26718-40006 Rev. A, No. CM-26718-40007 Rev. C, No. CM-26718-40010 Rev. B, No. CM-26718-40050 Rev. 0, No. AS-26719-20001 Rev. 0, No. AS-26719-20002 Rev. 0, No. AS-26729-20001 Rev. 0, No. AS-26729-20002 Rev. A, No. CM-26398-40007 Rev. A, No. CM-26398-40010 Rev. 0, No. AS-26166/1-20001 Rev. 0, No. AS-26166/1-20002 Rev. 0, No. AS-26166/2-20001 Rev. A and No. AS-26166/2-20002 Rev. A.

- Software Quality Assurance Plan, No. D25806 rev.0 dated 12.01.2006

### **3. TEST REPORTS:**

Issued by **BRE:**

Technical Evaluation of the Microdata Due Model MD9902 (EN 54-10), Test Report TE 227965 dated 07 Nov. 2006  
Software Evaluation of the Microdata Due Model MD9902 (EN 54-10), Test Report TE 227965-SW dated 10 January 2007.

**TestLab:**

Test Report Teslab 119206F dated 07.11.11.  
Test Report Teslab 172048F-a Rev.01 dated 15/02/2018  
Test Report Teslab 172048F-c Rev.01 dated 15/02/2018.

#### **Instituto Giordano:**

Test Reports (IP Testing) No. 213254 dated 30/06/2006 and No. 225438 dated 10/05/2007.

**For C0 version :**

- Test Report No. 17B295E, dated 2017/11/22

### **4. APPLICATION / LIMITATION:**

- 4.1 - BUREAU VERITAS Rules for the Classification of Steel Ships, Offshore Units and Naval Ships.
- 4.2 - Approval valid for ships intended to be granted with the following additional class notations: **AUT-UMS, AUT-CCS, AUT-PORT and AUT-IMS.**
- 4.3 - BUREAU VERITAS Environmental Category, **EC Code: 21S**
- 4.4 - The equipment fulfils the EMC requirements for installation on the Bridge and Deck Zone.
- 4.5 - Only Hardware and Firmware / Software successfully tested together in compliance with the rules as referred to in cover page, according to the declaration of the manufacturer are covered by this certificate.
- 4.6 - Any modification of the hardware, firmware or software having an impact on the product performance or functionality has to be validated with type testing.
- 4.7 - Each application and configuration is to be submitted to the Society's examination prior to fitting on board.
- 4.8 . In accordance with IACS UR E22 and as applicable to programmable devices for computer based systems of Category II or III, for each ship application:
  - Ship specific documentation is to be submitted including software documentation and categorization of the computer based

system.

- Inspection and testing before installation onboard is to be performed under the surveillance of the Society.

4.9 - Equipment covered by this Type Approval certificate has been tested according to requirements of IACS UR E10 rev 8.

#### **5. PRODUCTION SURVEY REQUIREMENTS:**

5.1 - The **Salwico AC-IR-3Fq** Flame Detectors are to be supplied by **Consilium Marine & Safety AB** in compliance with the type described in this certificate.

5.2 - This type of product is within the category HBV of Bureau Veritas Rule Note NR320 and as such does not require a BV product certificate.

5.3 - **Consilium Marine & Safety AB** has to make the necessary arrangements to have its works recognised by Bureau Veritas in compliance with the requirements of NR320 for HBV products.

5.4 - For information, **Consilium Marine & Safety AB** has declared to Bureau Veritas the following production site:

**MICRODATA DUE SRL**  
**Via Greti del Vara, 9**  
**19020 Follo-SP**  
**ITALY**

#### **6. MARKING OF PRODUCT:**

According to EN 54-10 and EN 54-17

#### **7. OTHERS:**

7.1 - It is **Consilium Marine & Safety AB** 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 Type Approval Certificate No. 28547/B0 BV issued on 16 March 2018 by the Society.

\*\*\* END OF CERTIFICATE \*\*\*