



Marine & Offshore

Certificate number: 10630/E0 BV

File number: AP 3346

Product code: 3786I

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

safetec Brandes und Niehoff GmbH
LÜNEBURG - GERMANY

for the type of product

SAMPLE EXTRACTION SMOKE DETECTION SYSTEMS

Smoke Detection System, type: SDS-48.

Requirements:

BV Rules for the Classification of Steel Ships.
MSC.292(87), FSS Code Ch. 10.

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: 22 Sep 2022

For Bureau Veritas Marine & Offshore,

At BV HAMBURG, on 22 Sep 2017,

Dirk Hoepfner



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:

1.1 - Components of the Smoke Detection Systems:

- **Smoke Detection Panel SDS-0** : Control Panel without detection lines
- **Smoke Detection Panel SDS-4** : with up to 4 detection lines
- **Smoke Detection Panel SDS-8** : with up to 8 detection lines,
- **Smoke Detection Panel SDS-12** : with up to 12 detection lines
- **Extension Panel SDS-E8** : extension with up to 8 detection lines
- **Extension Panel SDS-E12** : extension with up to 12 detection lines
- **Extension Panel SDS-E16** : extension with up to 16 detection lines
- **Extension Panel SDS-EC16** : extension with up to 16 detection lines in compact version,
- **Repeater Panel SDS-R48** : for remote indication
- **Relays Box SDS-REL** : for additional fire alarm relays for each detection line
- **Fan Unit SDS-M0440 / M0441** : with 2 fans

1.2 - Technical data:

- Main supply: 220/230 V, 50 / 60 Hz or 110/115 V, 50 / 60 Hz.
- Emergency supply: 220/230 V, 50 / 60 Hz or 110/115V, 50 / 60 Hz.
- Enclosure protection of panels: IP 66.
- Enclosure protection of fan motors: IP 54.

1.3 - Software Version: V1.2.14

2. DOCUMENTS AND DRAWINGS:

Safetec circuit diagrams:

- BG01.502 ; BG02.300.T2001 ; BG02.500.T2001 ; BG02.600.T2001 ;
- BG02.610.T2001 ; BG02.810.T2001 ; BG02.820.T2001 ;
- SDS02.081.tcd ; SDS02.082.tcd ; SDS02.010.12.tcd ; SDS02.021.tcd ;
- SDS02.031.tcd ; SDS02.032.tcd ; SDS02.061.tcd ; SDS02.080.tcd ;
- SDS02.081.tcd ; SDS02.082.tcd ; SDS02.100.01.tcd ; SDS02.104.01.tcd ;
- SDS02.108.01.tcd ; SDS02.112.01.tcd ; SDS02.204.01.tcd ; SDS02.208.01.tcd ;
- SDS02.212.01.tcd ; SDS02.216.01.tcd ; SDS02.300.01.tcd ; SDS02.301.01.tcd ;
- SDS02.440.01.tcd ; SDS02.900.01.tcd ; SDS02.440.01.tcd ; SDS02.440.11.tcd.

Safetec list of materials:

- BG01.502 ; BG02.100 ; BG02.204 ; BG02.208 ; BG02.300 ; BG02.500 ;
- BG02.600 ; BG02.610 ; BG02.800 ; BG02.810 ; BG02.820 ; BG02.900 ;
- SDS02.100 ; SDS02.204 ; SDS02.208 ; SDS02.300 ; SDS02.301.

Safetec Documentation:

- Technical Manual DOK.02.041 dated 24.07.2000
- Smoke Detection System SDS-48, Operation Manual, DOK02.051 Issue 3.24 dated 23.05.2012
- Explosion-Protection according to EN 60079-25, DOK02.054 Rev.0 dated 23.04.2012
- Software Quality Management Manual, Rev. 1 dated 05/2012.

3. TEST REPORTS:

EMV Services GmbH - Hamburg laboratory test report No 00/0005-2 dated 29.08.2000.

RMS - Reinbek / Hamburg laboratory test report No 01-09/2000 dated 10.10.2000.

EMV Services GmbH - EMC Laboratory test report N° 01/0005-3 dated 22/06/2001.

EMV Services GmbH - EMC Laboratory test report N° 05/5166-1 dated 24/10/2005.

Safetec Reports:

- Test Report SDS-48 and EN 54-4.Rev0 dated July 28th, 2011
- Test Report of Conformity of SDS-48 with EN 54-2.Rev0 dated 11 April, 24 April and 09 May, 2012
- Fan Units SDS-M0440 / SDS-M0441, Technical Documentation, DOK02.56 Rev. 3 dated 25.06.2012
- EC-Declaration of Conformity in compliance with EC Directive 94/9/EC (ATEX) dated 26.06.12.

EECS / Baseefa:

- EC-Type Examination Certificate (P+F KFD0-CS-Ex2.54) No. BAS00ATEX7087 and its 5 variations (Last update 20 January 2010)
- EC-Type Examination Certificate (XP95 Range of IS Fire Monitors) No. BAS02ATEX1289 and its 4 variations (Last update 08 July 2011).

4. APPLICATION / LIMITATION:

4.1 - BUREAU VERITAS Rules and Regulations for the Classification of Steel Ships.

4.2 - Allowed detectors:

XP 95 Optical Smoke Monitor Model 55000-640 manufactured by APOLLO has to be covered by a valid certificate issued by the Society.

4.3 - This Certificate does not cover external piping arrangement.

4.4 - For any application for a given ship, drawings showing the arrangement shall be submitted for Society's Approval.

4.5 - The equipment installed on board ship is to be tested in accordance with the above referred Regulations under the supervision of a Society's Surveyor.

4.6 - Such system is not permitted in special categories spaces, open ro-ro spaces, open vehicle spaces.

4.7 - Shall not substitute a fixed fire detection and fire alarm system where required by the Rules.

4.8 - Only Hardware and Firmware / 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.

5. PRODUCTION SURVEY REQUIREMENTS:

5.1 - The above products are to be supplied by **safetec Brandes und Niehoff GmbH** in compliance with the type and the requirements described in this certificate.

5.2 - This type of product is within the category IBV of Bureau Veritas Rule Note NR320.

5.3 - BV product certificate is required.

6. MARKING OF PRODUCT:

6.1 - Trade name

Date of manufacture and serial number,

Equipment type or model identification under which it was type-tested.

6.2 - Alternatively, the marking may be presented on a display at equipment start-up.

6.3 - The title and version of each software element included in the installed software system shall be either marked or displayed on command on the equipment.

6.4 - When the marking and the title and version of the software are displayed only on the display, such information shall also be included in the equipment manual.

6.5 - Ex marking, as relevant.

6.6 - @ or \ conformity marking, as relevant.

7. OTHERS:

7.1 - It is **safetec Brandes und Niehoff GmbH**'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 Type Approval Certificate No. 10630/D1 BV issued on 08 Feb 2016 by the Society.

*** END OF CERTIFICATE ***