



TYPE APPROVAL CERTIFICATE
No. ELE165322XG

This is to certify that the product below is found to be in compliance with the applicable requirement of the RINA type approval system.

<i>Description</i>	Fire detection and control system for Fixed Water Based Local Application Fire-Fighting System (FWBLAFFS), Sprinkler and Engine Room Total Flooding Extinguishing System.
<i>Type</i>	ACS-1 Fire detection and control system
<i>Applicant</i>	SAFETEC BRANDES UND NIEHOFF GMBH Kringelsburg 2a 21379 Scharnebeck GERMANY
<i>Manufacturer</i>	SAFETEC BRANDES UND NIEHOFF GMBH
<i>Place of manufacture</i>	Kringelsburg 2a 21379 Scharnebeck GERMANY
<i>Reference standards</i>	Rules for the Classification of Ships.- Part C - Machinery, Systems and Fire protection. - Ch.3, Sect. 6, Table 1. EN 54-2: 1997 / DIN EN 54-2/A1:2007-01 - Control and indicating equipment. EN 54-4: DIN EN 54-4/A2:2007-01 - Power supply equipment.

Issued in **HAMBURG** on **August 24, 2022**. *This Certificate is valid until* **August 23, 2027**

RINA Services S.p.A.
Giuseppe Russo

This certificate consists of this page and 1 enclosure

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Enclosure - Page 1 of 1
ACS-1 Fire detection and control system

...Product Description:

The Alarm and Control System ACS-1 is a modular system. It contains modules with different inputs and outputs for different purposes with optional adapter modules.

Type	Component name	Specifications
CP-100	Fire detection panel with ADP-170/-172	ACS01.100.FV-Rev.3
CP-110	Fire detection panel with ADP-174	CP01.111.FV-Rev.2
CP-209	Remote release panel with ADP-170	ACS01.209.FV-Rev.5
CP-240	CO2 remote release panel with ADP-162	ACS01.240.FV-Rev.4
CP-410	Display panel for water mist system with ADP-170 /-172	ACS01.410.FV-Rev.4
CP-411	Display panel for fire alarm system with ADP-170 /-172	ACS01.411.FV-Rev.4
CP-412	Display panel for sprinkler alarm system with ADP-170 /-172	ACS01.412.FV-Rev.4
CP-490	Mimic Panel with or without integrated Control Panel CP-110	CP-490.FV-Rev.0
CAN-REDU-1	CAN bus interface module	BG07.582.FV-Rev.2
RP-01	Local release box	RP01.001.FV-Rev.6
MC-304 MC-308 MC-312 MC-316	Module cabinet Module cabinet containing I/O Modules	MC-304.FV-Rev.1 MC-308.FV-Rev.2 MC-312.FV-Rev.2 MC-316.FV-Rev.0
IO - 630x	I/O-module x= 0, 2, 3	BG06.303.FV-Rev.5
IO - 634x	Input module x= 0, 3	BG06.340.FV-Rev.5
ACS-OUT48	Output module	BG06.361.FV-Rev.6
ACS-OPTO16-A ACS-OPTO48-A ACS-OPTO48-R ACS-OPTO16-R	Optocoupler module 16 opto couplers with terminals for end and alarm resistors	BG06.961.FV-Rev.1 BG06.960.FV-Rev.1 BG06.963.FV-Rev.0 BG06.964.FV-Rev.0
ACS-REL16	Relay module	BG06.965.FV-Rev.2
MEPS-01	Main/ emergency power supply switch	BG06.502.FV-Rev.3
Vbxxx-MAR(-U)	Electric valve actuator (xxx = 030, 060, 110, 190, 270, 350)	BG07.420.FV-Rev.5 BG07.421FV-Rev.2
POW-6510	POW-6510	BG06.510.FV-Rev.3

Documents:

Manual: DOK02.201 Rev. 1.02 dated 10.2018; Software Description_ACS rev. 0 (22/10/2004)

Test Reports:

DAR: 03 / 3006-2 (18/03/2003); **EMV service:** 03 / 3152-1 (18/03/2003); 08/8085-2 (21/07/2008); 10/1106-1 (03.08.2010);
RMS: 01 - 08 / 2003 (13/08/2003); 01- 08/2003 (13.08.2003); 01 - 06 / 2005 (30/08/2005); 09-08/2005 (31/08/2005); 06-08/ 2005 (31.08.2005); 01-07/2008 (18/07/2008); 03-07/2008 (18/07/2008); 01-04/2010 (27/04/2010);

Safetec + Brandes: DOK21.001 Rev. 2 dated 04.03.2015; DOK21.002 Rev.0 dated 16.03.2015;

Treo Labor: - 190-14 dated November 20, 2014; **TÜV NORD CERT GmbH:** - 15007-1-R00 dated Feb 17, 2015, 19231-1-2-R00 dated Dec 18. 2019

Remarks:

- Each particular application and installation is to be specifically approved and tested.
- Reference Guidelines for installation / approval of FWBLAFFS are to be considered:
SOLAS II-2 /10 , IMO Res. A.800(19) , MSC/Circ. 913; MSC.1-Circ.1387; MSC/Circ.1165, as amended by MSC.1/Circ.1237, as amended by MSC.1/Circ.1269, as amended by MSC.1/Circ.1386
- MED certified fire detectors are to be used.

This certificate replaces the previous one N° ELE249916XG.

HAMBURG August 24, 2022