TYPE APPROVAL CERTIFICATE

Certificate No:
TAA0000137
Revision No:
2

This is to certify:

That the Control system for fire extinguishing

with type designation(s)
E-WATER

Issued to
safetec Brandes und Niehoff GmbH
Scharnebeck, **Germany**

is found to comply with
SOLAS Consolidated Edition (2014)
DNV rules for classification – Ships, offshore units, and high speed and light craft

Application :

Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV.

Location classes:

Temperature	**B**
Humidity	**B**
Vibration	**A**
EMC	**B**
Enclosure	**Required protection according to the Rules shall be provided upon installation on board.**

Issued at **Hamburg** on **2025-08-27**

This Certificate is valid until **2028-07-30**.
DNV local unit: **Hamburg**

Approval Engineer: **Heinz Scheffler**

for **DNV**
Digitally signed by: Dariusz Lesniewski
Location: DNV SE, Germany

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This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid.
The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.

Product description

The type designation E-WATER summarizes all system components for Control systems for fixed water based fire extinguishing systems including pumps and valves control. Four variants of the E-WATER system components configurations are possible depending on the application and applicable international standards and regulations.

Local Protection (FWBLAFFS)

FSS Code Chapter 7
IMO MSC/Circ. 1387
SOLAS Ch. II-2, Reg.10.5.6.

System Component Local Application	
System Layouts and General Description please observed the Manual DOK02.220	
Main System Components:	Firmware
CP-110 Control Panel with	SW-CP110-STD V1.04 / V1.05
ADP-174: Adapter Module	NA
CM-6110: Control Module for CP-110	NA
CP-209 FWBLAFFS Remote Release Panel	A209a V2.03
CP-220 Remote Release Panel with	A209a V2.03
ADP-170: Adapter Module	NA
CM-6209: Release Module for CP-220	NA
CP-410 Display panel with ADP-170/-172 for Water Mist System	A410 V2.03
RP-01 Local Release Box	NA
Module Cabinets for different combinations of modules	
MC-302 Module Cabinet (300 x 200 x 120 mm)	NA
MC-304 Module Cabinet (380 x 300 x 155/210 mm)	NA
MC-308 Module Cabinet (600 x 380 x 210 mm)	NA
MC-310 Module Cabinet (500 x 500 x 210 mm)	NA
MC-312 Module Cabinet (600 x 600 x 210 mm)	NA
MC-316 Module Cabinet (600 x 760 x 210 mm)	NA
MC-320 Module Cabinet (760 x 760 x 210 mm)	NA
Modules for different project requirements:	
IO-6300 I/O-Module	A300 V2.03
IO-6302 I/O-Module	A302 V2.03
IO-6303 I/O-Module	A303 V2.03 / A303-Exi if explosion-hazardous area
IO-6340 I/O-Module	A340 V2.03
IO-6343 I/O-Module	A343 V2.03
ACS-OUT48 Output Module	A361 V2.03
ACS-OPTO48-A Opto Coupler Module	NA
ACS-OPTO48-R Opto Coupler Module	NA
ACS-OPTO16-A Opto Coupler Module	NA
ACS-OPTO16-R Opto Coupler Module	NA
ACS-REL16 Relay Module	NA
CAN-REDU-1 CAN Bus Interface Module	SW-CAN-REDU-1-FLAT-VAR V1.00
MEPS-01 Main/Emergency Power Supply Switch	NA
UV-Flame Detector:	
800/24 VST-K-NT / 800/24 VST-K-NT A	NA

Room Protection

- Fixed pressure water and water spraying system	FSS-Code Chapter 7
- Fixed Foam Fire-Extinguishing Systems	FSS-Code Chapter 6
- Helicopter Facility Foam Firefighting Appliances	FSS-Code Chapter 17
- RoRo - and special category spaces	MSC.1/Circ. 1430 REV.3
- High-speed craft (HSC)	HSC 2000 Code
- Machinery spaces and cargo pump rooms	SC/Circ. 1165 with MSC.1/Circ. 1386 MSC/Circ. 668 (MSC/Circ.728)

System Component Room Protection	
System Layouts and General Description please observed the Manual DOK02.220	
Main System Components:	Firmware
CP-110 Control Panel with	SW-CP110-STD V1.04 / V1.05
ADP-174: Adapter Module	NA
CM-6110: Control Module for CP-110	NA
CP-209 FWBLAFFS Remote Release Panel	A209a V2.03
CP-220 Remote Release Panel with	A209a V2.03
ADP-170: Adapter Module	NA
CM-6209: Release Module for CP-220	NA
CP-410 Display panel with ADP-170/-172 for Water Mist System	A410 V2.03
RP-01 Local Release Box	NA
Module Cabinets for different combinations of modules:	
MC-302 Module Cabinet (300 x 200 x 120 mm)	NA
MC-304 Module Cabinet (380 x 300 x 155/210 mm)	NA
MC-308 Module Cabinet (600 x 380 x 210 mm)	NA
MC-310 Module Cabinet (500 x 500 x 210 mm)	NA
MC-312 Module Cabinet (600 x 600 x 210 mm)	NA
MC-316 Module Cabinet (600 x 760 x 210 mm)	NA
MC-320 Module Cabinet (760 x 760 x 210 mm)	NA
Modules for different project requirements:	
IO-6300 I/O-Module	A300 V2.03
IO-6302 I/O-Module	A302 V2.03
IO-6303 I/O-Module	A303 V2.03 / A303-Exi if explosion-hazardous area
IO-6340 I/O-Module	A340 V2.03
IO-6343 I/O-Module	A343 V2.03
ACS-OUT48 Output Module	A361 V2.03
ACS-OPTO48-A Opto Coupler Module	NA
ACS-OPTO48-R Opto Coupler Module	NA
ACS-OPTO16-A Opto Coupler Module	NA
ACS-OPTO16-R Opto Coupler Module	NA
ACS-REL16 Relay Module	NA
CAN-REDU-1 CAN Bus Interface Module	SW-CAN-REDU-1-FLAT-VAR V1.00
MEPS-01 Main / Emergency Power Supply Switch	NA

Automatic Sprinkler
- Sprinkler System

MSC.1/Circ 1556 and FSS-Code Chapter 8

System Component Sprinkler	
System Layouts and General Description please observed the Manual DOK02.220	
Main System Components:	Firmware
CP-110 Control Panel with	SW-CP110-STD V1.04 / V1.05
ADP-174: Adapter Module	NA
CM-6110: Control Module for CP-110	NA
CP-412 Display Panel with ADP-170/-172 for Sprinkler System	A412 V2.03 / A412a V2.03
CP-490 Sprinkler Alarm Mimic Panel	NA
Module Cabinets for different combinations of modules:	
MC-302 Module Cabinet (300 x 200 x 120 mm)	NA
MC-304 Module Cabinet (380 x 300 x 155/210 mm)	NA
MC-308 Module Cabinet (600 x 380 x 210 mm)	NA
MC-310 Module Cabinet (500 x 500 x 210 mm)	NA
MC-312 Module Cabinet (600 x 600 x 210 mm)	NA
MC-316 Module Cabinet (600 x 760 x 210 mm)	NA
MC-320 Module Cabinet (760 x 760 x 210 mm)	NA
Modules for different project requirements:	
IO-6300 I/O-Module	A300 V2.03
IO-6302 I/O-Module	A302 V2.03
IO-6303 I/O-Module	A303 V2.03 / A303-Exi if explosion-hazardous area
IO-6340 I/O-Module	A340 V2.03
IO-6343 I/O-Module	A343 V2.03
ACS-OUT48 Output Module	A361 V2.03
ACS-OPTO48-A Opto Coupler Module	NA
ACS-OPTO48-R Opto Coupler Module	NA
ACS-OPTO16-A Opto Coupler Module	NA
ACS-OPTO16-R Opto Coupler Module	NA
ACS-REL16 Relay Module	NA
CAN-REDU-1 CAN Bus Interface Module	SW-CAN-REDU-1-FLAT-VAR V1.00
MEPS-01 Main/Emergency Power Supply Switch	NA

Service Space Protection

- deep fat cooking equipment	MSC1/Circ. 1433 and SOLAS Ch. II-2, Reg. 10.6.4
- galley exhaust ducts	SOLAS Ch. II-2, Reg. 9.7.5
- paint lockers and flammable liquid lockers	SOLAS Ch. II-2, Reg.10.6.3

System Component Service Space Protection	
System Layouts and General Description please observed the Manual DOK02.220	
Main System Components:	Firmware
CP-110 Control Panel with	SW-CP110-STD V1.04 / V1.05
ADP-174: Adapter Module	NA
CM-6110: Control Module for CP-110	NA
RP-01 Local Release Box	NA
Module Cabinets for different combinations of modules:	
MC-302 Module Cabinet (300 x 200 x 120 mm)	NA
MC-304 Module Cabinet (380 x 300 x 155/210 mm)	NA
MC-308 Module Cabinet (600 x 380 x 210 mm)	NA
MC-310 Module Cabinet (500 x 500 x 210 mm)	NA
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Modules for different project requirements:	
IO-6300 I/O-Module	A300 V2.03
IO-6302 I/O-Module	A302 V2.03
IO-6303 I/O-Module	A303 V2.03 / A303-Exi if explosion-hazardous area
IO-6340 I/O-Module	A340 V2.03
IO-6343 I/O-Module	A343 V2.03
ACS-OUT48 Output Module	A361 V2.03
ACS-OPTO48-A Opto Coupler Module	NA
ACS-OPTO48-R Opto Coupler Module	NA
ACS-OPTO16-A Opto Coupler Module	NA
ACS-OPTO16-R Opto Coupler Module	NA
ACS-REL16 Relay Module	NA
CAN-REDU-1 CAN Bus Interface Module	SW-CAN-REDU-1-FLAT-VAR V1.00
MEPS-01 Main/Emergency Power Supply Switch	NA

Application/Limitation
Equipment not for installation within a distance of 5 m from magnetic compass.

The current SOLAS interpretation DNV-SI-0364 is to be observed.

Power supply modules and Electric actuators needs DNV Type Approval acc. manual DOK02.220.

Approval conditions
The Type Approval covers hardware and firmware listed under Product description.

The following documentation of the actual application is to be submitted by the supplier for approval in each case:
- Reference to this Type approval certificate
- Reference to other Type Approval Certificates where applicable
- Functional description incl. description of functions covered by software (DNV I020)
- Application software configuration and Software release (DNV I320)
- System Block diagram (DNV I030)
- User interface description (DNV I040)
- Electrical diagram with interfaces incl. List of control and monitored points (DNV I050 & I110)
- Power Supply arrangement, may be part of the System block diagram (DNVI050)
- Arrangement drawings showing location of devices (may be a part of DNV I030)
- Test program for application software at manufacturer (Z252)

Type Approval documentation
Documents and Test Reports: ListOfDocuments-DL7, Rev3.

Tests carried out
Applicable tests according to class guideline DNV-CG-0339, August 2021.

Marking of product
The products to be marked with:
- Model name
- Manufacturer name
- Serial number

Periodical assessment
The scope of the periodical assessment is to verify that the conditions stipulated for the type are complied with, and that no alterations are made to the product design or choice of systems, software versions, components and/or materials.

The main elements of the assessment are:
- Ensure that type approved documentation is available
- Inspection of factory samples, selected at random from the production line (where practicable)
- Review of production and inspection routines, including test records from product sample tests and control routines
- Ensuring that systems, software versions, components and/or materials used comply with type approved documents and/or referenced system, software, component and material specifications
- Review of possible changes in design of systems, software versions, components, materials and/or performance, and make sure that such changes do not affect the type approval given
- Ensuring traceability between manufacturer’s product type marking and the type approval certificate

Periodical assessment is to be performed after 2 years and after 3.5 years. A renewal assessment will be performed at renewal of the certificate.

END OF CERTIFICATE