DNV·GL

Certificate No:
TAA00002WA

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Control system for fire extinguishing

with type designation(s)
BMZ 303-22; BMZ 303-64

Issued to
Egon Harig GmbH
Oststeinbek, Schleswig-Holstein, Germany

is found to comply with
DNV GL rules for classification – Naval vessels
GL Rules for Classification and Construction III - Naval Ship Technology

Application :

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

Temperature	**B**
Humidity	**B**
Vibration	**B**
EMC	**A**
Enclosure	**B**

Issued at **Hamburg** on **2020-10-21**
This Certificate is valid until **2025-10-20**.
DNV GL local station: **Hamburg – CMC North/East**

Approval Engineer: **Heinz Scheffler**

for **DNV GL**

Joannis Papanuskas
Head of Section

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.

LEGAL DISCLAIMER: Unless otherwise stated in the applicable contract with the holder of this document, or following from mandatory law, the liability of DNV GL AS, its parent companies and subsidiaries as well as their officers, directors and employees ("DNV GL") arising from or in connection with the services rendered for the purpose of the issuance of this document or reliance thereon, whether in contract or in tort (including negligence), shall be limited to direct losses and under any circumstance be limited to 300,000 USD.

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Product description

Automatic / Manual Fire Extinguishing Release Unit for Engine Enclosure

BMZ 303-22: 2 temperature detectors and 2 UV flame detectors
BMZ 303-64: 4 temperature detectors and 6 UV flame detectors

Main / Emergency power supply: 24 V DC

Function:

- Monitoring and alerting of the power supply
- Monitoring and alerting of UV flame detectors FL/SS 7510/35 MIL
- Monitoring and alerting of temperature detectors KPS 79
- Evaluation of UV flame detectors and temperature detectors
- Local manual and automatic release of the fire extinguishing system
- Failure and release indication of the fire extinguishing system

Outputs:

- Collective alarms of BMZ, UV flame - and temperature detectors
- Main power supply failure
- Fire extinguishing initiated and released
- Fire extinguishing valve opened / closed

Application/Limitation

Location class Enclosure: IP 64.

The Type Approval covers hardware listed under Product description. When the hardware is used in applications to be classed by DNV GL, documentation for the actual application is to be submitted for approval by the manufacturer of the application system in each case.
Reference is made to DNV GL Rules Naval vessels Part 3 Surface Ships Chapter 2 Propulsion Plants / GL Rules III Part 1 Surface Ships Chapter 2 Propulsion Plants.

Type Approval documentation

Test Reports: 06-L-00482-01; 01-06/2006; 072701.173.20 V1.0; 20DE00557A

Documents: Function description 4.05180 Rev.1; 4.04266 Rev.2; Data sheet 4.04067.1 Rev. 6; 4.04097.1 Rev.6; Document and drawing list 4.05297.10 dated 23.10.2020;4.05297.20 dated 23.10.2020

Tests carried out

Applicable tests according to class guideline DNVGL-CG-0339, December 2019

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