



Certificate No:  
**TAA0000349**

# TYPE APPROVAL CERTIFICATE

## This is to certify:

**That the Oil Mist Detector**

with type designation(s)  
**Triton OMD II**

Issued to

**Heinzmann GmbH & Co. KG**  
**Schönau im Schwarzwald, Baden-Württemberg, Germany**

is found to comply with

**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.**

<b>Temperature</b>	<b>A</b>
<b>Humidity</b>	<b>B</b>
<b>Vibration</b>	<b>B</b>
<b>EMC</b>	<b>A</b>
<b>Enclosure</b>	<b>B (IP65)</b>

Issued at **Hamburg** on **2022-05-10**

This Certificate is valid until **2027-01-25**.

for **DNV**

DNV local station: **Augsburg**

Approval Engineer: **Jens Dietrich**

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**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 AS, its parent companies and their subsidiaries as well as their officers, directors and employees ("DNV") 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.



## Product description

### TRITON OMD II

- OMD-Sensor Units with crankcase insert tube and internal extraction fan
  - CAN communication (ring topology) to the engine control, monitoring and safety system
  - 2 x M12 8-pin CAN- and power supply connectors
  - Configurable oil mist concentration levels for alarm and shut-downs
  - Self-monitoring including obscuration compensation and maintenance alarms
  - Alarming of internal failures
- Maximal sensors per system: 16

### **Part number 671-00-000-XX**

XX: Variants with different cable outlet geometry and cable lengths

Power supply: 24VDC

SW-Version 00.0.xx.

## Application/Limitation

The following documentation of the actual application is to be submitted for approval in each case, typically by the vendor of the engine control, monitoring and safety system:

- Reference to this Type Approval Certificate
- System block diagram, CAN bus topology
- Power supply arrangement (may be part of the System block diagram)
- List of configured alarms and safety functions

The Type Approval covers hardware and software listed under Product description.

The system build with the OMD units shall provide continuous functional monitoring of the units. Malfunctions need to be routed by alarming to the connected Monitoring- and Control System.

The periodic maintenance requirements described in the Installation and Operation Manual are to be observed.

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The Type Approval covers hardware and software listed under Product description.

### Product certification

Each delivery of the application system (here engine control, monitoring and safety system with embedded OMD) is to be certified according to Pt.4 Ch.9 Sec.1. The certification test is to be performed during the engine manufacturers workshop test before the system is shipped to the yard. After the certification the clause for application software control will be put into force.

When the type approved software is revised (affecting all future deliveries) DNV is to be informed by forwarding updated software version documentation. If the changes are judged to affect functionality for which rule requirements apply a new functional type test may be required and the certificate may have to be renewed to identify the new software version.

### Application software control

All changes in software are to be recorded as long as the system is in use on board. Documentation of major changes is to be forwarded to DNV for evaluation and approval before implemented on board.

## Tests carried out

- Applicable Tests according to DNV CG-0339, August 2021
- Tests according to IACS UR M67, 2015
- Performance Test

### **Marking of product**

Manufacturer name, Triton OMD II, part number, serial number, electric and ambient temperature ratings.

### **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