

**TYPE APPROVAL CERTIFICATE****This is to certify:****That the Control and Monitoring System**with type designation(s)  
**AutroMaster ISEMS**

Issued to

**Autronica Fire and Security AS**  
**Trondheim, Norway**

is found to comply with

**DNV GL 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 GL.****System Certificate only**Issued at **Høvik** on **2019-01-03**for **DNV GL**This Certificate is valid until **2020-12-31**.DNV GL local station: **Trondheim**Approval Engineer: **Knut Omberg****Jan Tore Grimsrud**  
**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.



Job Id: **262.1-006137-6**  
Certificate No: **TAA00000TW**  
Revision No: **1**

## Product description

AutroMaster ISEMS, Integrated Safety and Emergency Management System.

To be used in addition to Fire Alarm System types:

- BS 100 DYFI
- AutoSafe
- Autroprime

System parts:

- PC, DNV GL Type Approval Certificate TAA..... (To be documented for each delivery)
- PLC, DNV GL Type Approval Certificate TAA..... (To be documented for each delivery)
- Other hardware, Type Approval Cert. TAA..... (To be documented for each delivery)

With basic software:

- CentOS version 5.x
- AutroMaster ISEMS versions 4.3.x

## Approval conditions

The type approval covers software functions for AutroMaster ISEMS as listed above.

The following project-specific documentation of the actual application is to be submitted for approval in each case.:

- Reference to this Type Approval Certificate and to certificates covering hardware
- System block diagram/topology drawing including arrangement of external power supplies
- Functional description of implemented system functions
- List of control and monitored points
- Test program for certification including analysis and test of network

The Type Approval covers software listed under Product description.

The software number and version is listed in document 800669/04.2-005 rev.V1.1.

When the type approved software is revised (affecting all future deliveries) DNV GL 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.

### Product certificate

Each delivery of the application system is to be certified according to Pt.4 Ch.9 Sec.1. The certification test is to be performed at the manufacturer of the application system before the system is shipped to the yard. After the certification the clause for application software control will be put into force.

### 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 GL for evaluation and approval before implemented on board. Certification of Application Functions modified functionality may be required for the particular vessel.

## Type Approval documentation

Data Sheet – 116-P-AMASTER- ISEMS/CGB, Rev.B, 2016-04-11

System Description – 116-P-AMASTER-SYSTEM/XGB, Rev.C, 2016-05-20

Installation and Commissioning Handbook – 116-P-AMASTER-INSTCOMM/IGB, Rev.C, 2016-05-20

Basic Configuration Handbook – 116-P-AMASTER-BASICCONF/EGB, Rev.C, 2018-06-06

Advanced Configuration Handbook – 116-P-AMASTER-ADVCONF/EGB, Rev.B, 2015-10-10

Operator's Handbook – 116-P-AMASTER-OPERATE/FGB, Rev.B, 2016-03-30

Release Notes – AutroMaster ISEMS 4.3.3, issued 2016-05-31

DNV GL Trondheim periodical assessment report for TAA00000TW, dated 2018-12-11.

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## **Marking of product**

AutroMaster ISEMS

## **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

A renewal assessment will be performed at renewal of the certificate.

END OF CERTIFICATE