DNV·GL

Certificate No:
TAA00000TW

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

This Certificate is valid until **2018-12-31**.

Issued at **Høvik** on **2016-12-12**

for **DNV GL**

DNV GL local station: **Trondheim**

Approval Engineer: **Knut Omberg**

Odd Magne Nesvåg
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.

© DNV GL 2014. DNV GL and the Horizon Graphic are trademarks of DNV GL AS.

Job Id:
Certificate No: **TAA00000TW**

Product description
AutroMaster ISEMS, Integrated Safety and Emergency Management System.

To be used in addition to Fire Alarm System types:
- BS 100 DYFI
- AutroSafe
- 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 App.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 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
- Power supply arrangement (may be part of the System block diagram)
- List of control and monitored points
- Test program for certification

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
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

Periodical assessment is to be performed at least every second year and at renewal of this certificate.

END OF CERTIFICATE