



DET NORSKE VERITAS

TYPE APPROVAL CERTIFICATE

CERTIFICATE NO. A-10640
This Certificate consists of 5 pages

This is to certify that the
Diesel engine control and alarm system
with type designations
InteliSys - NT;
InteliGen - NT

Manufactured by
Huegli Tech AG
LANGENTHAL, Switzerland

is found to comply with
Det Norske Veritas' Rules for Classification of Ships, High Speed & Light Craft and
Det Norske Veritas' Offshore Standards

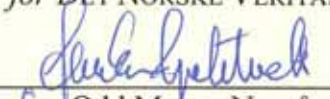
Application
Location classes:

Type	Temperature	Humidity	Vibration	EMC	Enclosure
InteliSys - NT	B/D**	B	B	A	B*
InteliGen - NT	B/D**	B	B	A	B*

*Panel front only

**Temperature class D: When heating of display is included


Place and date
Høvik, 2008-02-27
for DET NORSKE VERITAS AS


for Odd Magne Nesvåg
Head of Section



Local Office
DNV Essen

This Certificate is valid until
2010-06-30


Frode Sudmann Berntsen
Surveyor

Notice: 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.

If any person suffers loss or damage which is proved to have been caused by any negligent act or omission of Det Norske Veritas, then Det Norske Veritas shall pay compensation to such person for his proved direct loss or damage. However, the compensation shall not exceed an amount equal to ten times the fee charged for the service in question, provided that the maximum compensation shall never exceed USD 2 million in this provision "Det Norske Veritas" shall mean the Foundation Det Norske Veritas as well as all its subsidiaries, directors, officers, employees, agents and any other acting on behalf of Det Norske Veritas.



Cert. No.: A-10640
File No.: 852.61
Job ID.: 262.1-002274-1

Manufactured by

ComAp spol s.r.o
Kundratka 2359/17
CZ-180 00 Prague 8
Czech Republic

Product description

InteliGen - NT and IteliSys - NT are generator control and alarm system for both single and multiple generator sets. Synchronizing and power control with load sharing are available for both models.

Type	Description
• IS-NT Marine	InteliSys
▪ IS-NT-BB Marine	Central control system
▪ IS-Display	Display
• IG-NTC LT GC Marine	InteliGen
• IGS-LSM+PMS Dongle	Dongle to enable load sharing and power management
• IG-Display Marine	Secondary display
• IG-AVRi-Marine	AVR interface
• IG-AVRi-TRANS-Marine	Power supply for IG-AVRi-Marine
• I-AOUT8	8 analogue output interfaces
• I-RB8	Relay board with 8 relays
• I-RB8-231	Relay board with 8 relays for 231 Vac
• I-LBA	Low battery adapter
• I-LB+	Local bridge
• I-MTU 2:1	Main transformer unit
• I-CR	Interface module

Application/Limitation

To be mounted in steel cabinet with minimum IP44.

As stated in installation manual under "Marine application notes", power supply terminals shall be equipped with additional external component (e.g MCZ OVP CL 24VUC 1.25A or equivalent) to obtain approval in a DNV classed vessel.

An additional independent safety system for engine protection will be required to have the system approved in a DNV classed vessel.



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No functional tests have been performed during Type Approval. Complete test of all functions and failure testing towards communication, power and feedback failures as broken wire, short circuit and earth failure must be performed during certification.

Approval conditions

The Type Approval covers hardware listed under Product description. When the hardware is used in applications to be classed by DNV, 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 Rules for Ships Pt.4 Ch.9 Control and Monitoring Systems.

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 according to an approved test program before the system is shipped to the yard. After the certification the clause for application software control will be put into force.

Clause for application software control

All changes in software are to be recorded as long as the system is in use on board. The records of all changes are to be forwarded to DNV for evaluation and approval. Major changes in the software are to be approved before being installed in the computer.

Type Approval documentation

Attachment to application form - Date: 07-08-21
Request for Type Approval - Contents. Date: 07-08-21
DNV Application Form
ComAp NT controllers - general info
Comparsion_Table_NT
IG-EE Datasheet
IG-NT Datasheet
IM-NT 2.0 Datasheet
InteliGen GeCon Datasheet
IS-NT Datasheet
IGS-NT-2.0-Operator guide
IGS-NT-2.1-Application guide
IGS-NT-2.1-Installation guide
IGS-NT-2.1-Troubleshooting guide
IGS-NT-2.1-New features
IGS-NT-COMBI-2.1
IGS-NT-COX-2.1
IGS-NT-MINT-2.1
IGS-NT-SPI-2.1



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IGS-NT-SPtM-2.1
IGS-NT-GeCon-1.3
InteliMonitor - 2.1-New features
InteliMonitor - 2.1
GenConfig - 2.1-New features
GenConfig - 2.1
Inteli Communication Guide - February 07
ECU list - Allspeed-3.3 - Date: 06-06-15
ECU list - Allspeed-3.4-New features
ECU list - Allspeed-3.6-New features
ECU list - Gensets-3.2
ECU list - Gensets-3.3-New features
ECU list - Gensets-3.5-New features
WinScope - 1.4
WinScope - 1.5-New features
IGS-NT certificate
IGS-NT components
IGS-NT type test-part I. No.: 603501-01/01. Date 30.11.2006
IGS-NT type test-part II. No.: 603501-01/02. Date 30.11.2006
IGS-NT type test-part III. No.: 603501-01/03. Date 30.11.2006
IGS-NT type test-part IV. No.: 603501-01/04. Date 30.11.2006
Type Approval List_HT
EZU LabCertificate-cz-en
EZU ProductCertificate-cz-en
IGS-NT_Conformity_Declaration
Marine application notes-r1

Tests carried out

Applicable tests according to Standard for Certification No. 2.4, April 2006.



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Certificate retention survey

The scope of the retention/renewal survey 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 survey 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

Retention survey is to be performed at least every second year and at renewal of this certificate.

END OF CERTIFICATE