

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Marine Alarm and Monitoring System

with type designation(s)
XY08-JK

Issued to

Zhejiang Xinya Electric Development Co., Ltd.
Zhoushan Zhejiang, China

is found to comply with
DNV GL rules for classification – Ships

Application :

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

Temperature	B
Humidity	B
Vibration	A
EMC	A, B *)
Enclosure	Required protection according to the Rules to be provided upon installation on board

This Certificate is valid until **2019-03-07**.

Issued at **Hamburg** on **2017-03-08**

DNV GL local station: **Ningbo**

for **DNV GL**

Approval Engineer: **Didier Girardin**

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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.

Job Id:
Certificate No: **TAA00000XT**

Product description

Machinery alarm system;
duty alarm;
dead man machinery system.

Description	Type
Digital input main module	XY080112-M
Digital input extension module	XY080112-S
4-20mA analogue input module	XY080113
PT100 input module	XY080115
Thermocouple input module	XY080116
Digital output main module	XY080117-M
Digital output extension module	XY080117-S
4-20mA analogue output module	XY080118
Extension alarm panel	XY080122
LCD display	HP EliteDisplay E241i 24-inch (11 228 - 14 HH) *
LCD display	HP EliteDisplay E190i 19-inch (95 312- 14 HH)*
Industrial personal computer	HP 800 G2 (TAA00000GC)
UPS Power supply	MT1000S
Switch	EDS-205A (86 104 - 09 HH) *
AC/DC Power Supply	6EP1333-3BA10 (20 491 - 11 HH)*

SW version 1.1

Eventual additional hardware and software not covered by present type approval are subject to cas-by-case approval according to Pt.4 Ch.9.

Application/Limitation

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

- Reference to this Type Approval Certificate
- Functional description
- System block diagram/topology drawing
- Power supply arrangement (may be part of the System block diagram)
- Equipment list
- List of control and monitored points (I/O list, including data transferred on communication links)
- For deliveries of integrated systems a functional failure analysis documenting compliance with requirements for redundancy, segregation and effect of single failures in the system.
- Test program for product certification

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

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.

Clause for application software control

Job Id:
Certificate No: **TAA00000XT**

Tests carried out

Applicable tests according to Class Guideline DNVGL-CG-0339, Nov 2016.

Marking of product

The products to be marked with:

- Type 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 at least every second year and at renewal of this certificate.