

UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND CERTIFICATE OF TYPE APPROVAL

Applicant:-
C – VIGIL Ltd : Marine
Digital House, Peak Business Park
Foxwood Road, Chesterfield
Derbyshire, S41 9RF
United Kingdom

Manufacturer:-
C – VIGIL Ltd : Marine
Digital House, Peak Business Park
Foxwood Road, Chesterfield
Derbyshire, S41 9RF
United Kingdom

This is to certify that the applicant has submitted details of a:-

Marine Bridge Navigational Watch Alarm System (BNWAS)
(Marine Equipment Directive - Commission Directive 2010/68/EU – Item A.2/4.32)

Of system type known and designated as:-

GUARDIAN : BNWAS

(Comprising component parts and having technical characteristics shown in shedule 1)

and that this has been tested and assessed, and when used in a combination of component parts as described in the attached schedules, is CERTIFIED as complying with appropriate parts of:

IEC 62616 : 2010 “Bridge Navigational Watch Alarm Sysytem (BNWAS)”

IEC 60945 : 2002, “General Requirements for Marine Navigation Equipment” (Inc. Crrg’dm1:2008)

IEC 62288 : 2008 “Presentation of navigation-related information on shipborne navigational displays”

(being specifications for technical characteristics and methods of measurements, published by the International Electrotechnical Commission).

It is also RECOGNISED that the equipment conforms to performance standards not inferior to those adopted by the International Maritime Organisation, and which are contained in Resolution MSC.128(75), Resolution MSC.191(79) and the relevant parts of Resolution A694(17).

SIGNED:



R A Sharp Authorised Signatory

DATE of ISSUE: 3rd June 2011

DATE of EXPIRY : 2nd June 2016

Certificate Number: QQ-TAN-02/11-01

This Certificate is Valid until expiry date shown, subject to the standard conditions of issue printed on the attached schedule

QinetiQ
Cody Technology Park
Ively Road, Farnborough
Hampshire. GU14 0LX



Maritime and Coastguard Agency
The MCA is an Executive Agency of the
Department for Transport.

QinetiQ Ltd is specified as a "person" under the terms of The Merchant Shipping (Delegation of Equipment Approval) Regulations 1996, and this certificate is issued under the authority given in Merchant Shipping Notice No MSN 1735.

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Certificate of Type Approval - Schedule 1

C - VIGIL – GUARDIAN : BNWAS

The applicant declared that the following units comprise the BNWAS equipment of the designation given on page 1. These units in a typical configuration have been assessed & tested, and satisfactory details of these units were included in the technical file.

MAIN SYSTEM*¹ Comprising:-

Main Control Unit	1200	
HMI Operator Display Unit	1100	
Reset Panel with Isolate Keyswitch	1300	*2
Manual Reset Panel (Port, Stbd or Chart)	1400A, 1400B or 1400C	*2
Bridge Audible Alarm	1602	
Officers Area / Cabin or Bedroom Alarms	1605/A/B/C/D	*3
Public Room Alarm	1606A/	*3

OPTIONAL UNITS:-

Bridge Alarm Visual Indicator	1601
Bridge Wing AV Alarms	1603, 1604
Paging System	1500 & 1501
Motion Sensors (Pyronix KX10DP)	1701
Emergency Call (Panic) Button	1900
NMEA Interface	1800

SOFTWARE:-

Main Control software (BNWAS Firmware)	Version 2.0.0	*4
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*NOTES:-

- 1 This equipment is a Bridge Navigational Watch Alarm System using the component parts listed above and capable of versatile configuration to suit a ships operating plan in respect of IMO Resolution MSC.128(75). All items have been tested and are recognised as compliant with the relevant requirements of IEC 60945: 2002.
- 2 Up to 8 Reset Buttons can connected to suit the number of stations selected on the Bridge for reset points. The exact number used would be in accordance with the ships operating plan agreed with the Flag administration. All Reset buttons can activate an Emergency Call by holding the button in for greater than 3 seconds.
- 3 Up to 4 Audible alarm Units can be installed in the Officers' quarters for the second stage Alert and further Audible alarm units can be installed in the Crew quarters/public areas for the third stage Alert.
- 4 Software Modification: This approval is valid for equipment including subsequent software versions only where written details of such versions have been submitted to and accepted by QinetiQ.

Technical Characteristics

Security	Keyswitch to Manual OFF & 4 digit Passwords	Operational modes & time settings can only be changed after input of appropriate Password
Dormant Period (Td)	Default period 3 minutes	Can be preset up to 12 minute in 1 min steps
First Stage Indication	Active from end of Td	All Reset Buttons flash with blue illumination. Visual alarm beacon (1601) also available
First Stage Alarm	At Td + 15 second	Audio sounders to suit locations
Second Stage Alarm	Fixed delay 15 seconds. At Td + 30 second	Officer Cabin alarm units can be individually addressed to suit watch rota.
Third Stage Alarm	Default delay 90seconds	Public area alarm units Delay extendable in 9 steps up to 180 seconds
Audio alarm sounders	Measured sound level 79.7dB(A) at 1 m.	First Stage Alarms on Bridge. Second & Third stage alarms can be adjusted between 81dB(A) and 101.5dB(A), tone/pattern also adjustable
IEC 61162-1 SERIAL (NMEA) PORTS	Listener - 4 Talker - 1	Conformity to IEC 61162-1:2000.
TEMPERATURE RANGE & IEC 60945 CLASS	Protected -15°C to +55°C. Exposed -25°C to +55°C	-- All other units -- Bridge wing AV units
POWER SOURCE	110 /230V AC, 50/60Hz 24V DC (back-up)	Relies on external 24V DC supply to provide back-up operation of all circuitry for greater than 6 hrs operation if main AC power fails.

Conditions of Issue of this certificate are printed on page 4.

QinetiQ
Cody Technology Park
Ively Road, Farnborough
Hampshire. GU14 0LX

Certificate Number **QQ-TAN-02/11-01**

Certificates of Type Approval
Conditions of Issue

1. Each Certificate will be used in its entirety and not reproduced in part.
2. This certificate is not valid for equipment, the design or manufacture of which has been varied or modified from the specimen tested.
3. This certificate remains valid for a period of 5 years unless cancelled or revoked, provided any conditions contained in the schedule are complied with and the equipment remains satisfactory in service.
4. The approval status conferred by each certificate will apply only to the aspects of the equipment's performance defined by, and tested to, the specifications printed on that certificate.
5. Each unit of apparatus forming part of an equipment will have prominently marked on it the description given to it in the Certificate.
6. Each unit of an equipment will be marked with the minimum safe distance at which it should be mounted from a standard magnetic compass.
7. No unit of apparatus shall be advertised or labelled as "approved" or "certified" on behalf of the Maritime and Coastguard Agency (MCA), Department of Transport, DERA or QinetiQ in any sense other than that it is a type that has been assessed as satisfactory against the specification;

The manufacturer must advise QinetiQ of any future changes to the design or production of the equipment which might affect the equipment performance.

For minor modifications to the equipment, factory test results provided to QinetiQ by the manufacturer can be considered on a case-by-case basis. These test results will be reviewed by the QinetiQ, in consultation with the test facility which conducted the original Type Approval tests on the equipment.

QinetiQ will advise the manufacturer if there is a need for further testing.

If an equipment manufacturer wishes to have the type approved equipment designated under alternative names (e.g. agent/distributor's name and model number), a separate application should be completed and sent to QinetiQ.

QinetiQ Ltd
Marine Approval and Testing Service
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