Bridge Navigational Watch Alarm System (BWAS-2000)

CABLE-LESS & SIMPLEST INSTALLATION
EXACT COMPLANT WITH IMO & CLASS REGULATION

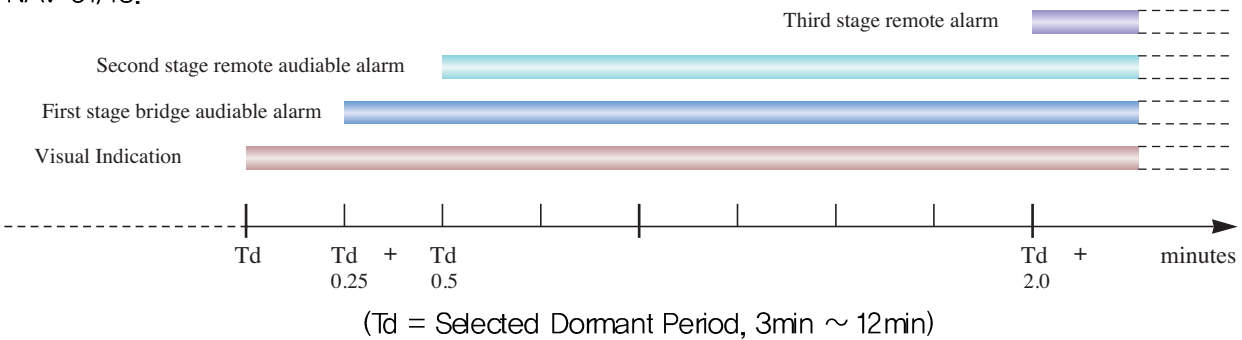**B-I INDUSTRIAL CO., LTD.**

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BWAS-2000

IMO NEW REGULATION FOR BNWAS

The purpose of a bridge navigational watch alarm system (BNWAS) is to monitor bridge activity and detect operator disability which could lead to marine accidents. The system monitors the awareness of the Officer of the Watch (OOW) and automatically alerts the Master or another qualified OOW if for any reason the OOW becomes incapable of performing the OOW.s duties.
BNWAS should be conformed to the requirements of IMO Resolution MSC.128(75), MSC 81/23/2 and NAV 51/18.

Third stage remote alarm

Second stage remote audiable alarm

First stage bridge audiable alarm

Visual Indication

| Td | Td + 0.25 | Td 0.5 | | | | Td + 2.0 | minutes |

(Td = Selected Dormant Period, 3min ~ 12min)

- Ships of 150 G/T and upwards and passenger ships irrespective of size constructed on or after [1-July-2011]
- All Passenger ships irrespective of size constructed before [1 July 2011] : First S/E survey after [1 July 2012]
- Ships of 3,000 gross tonnage and upwards constructed before [1 July 2011] : First S/E survey after [1 July 2012]
- Ships of 500 gross tonnage and upwards but less than 3,000 gross tonnage, constructed before [1 July 2013]

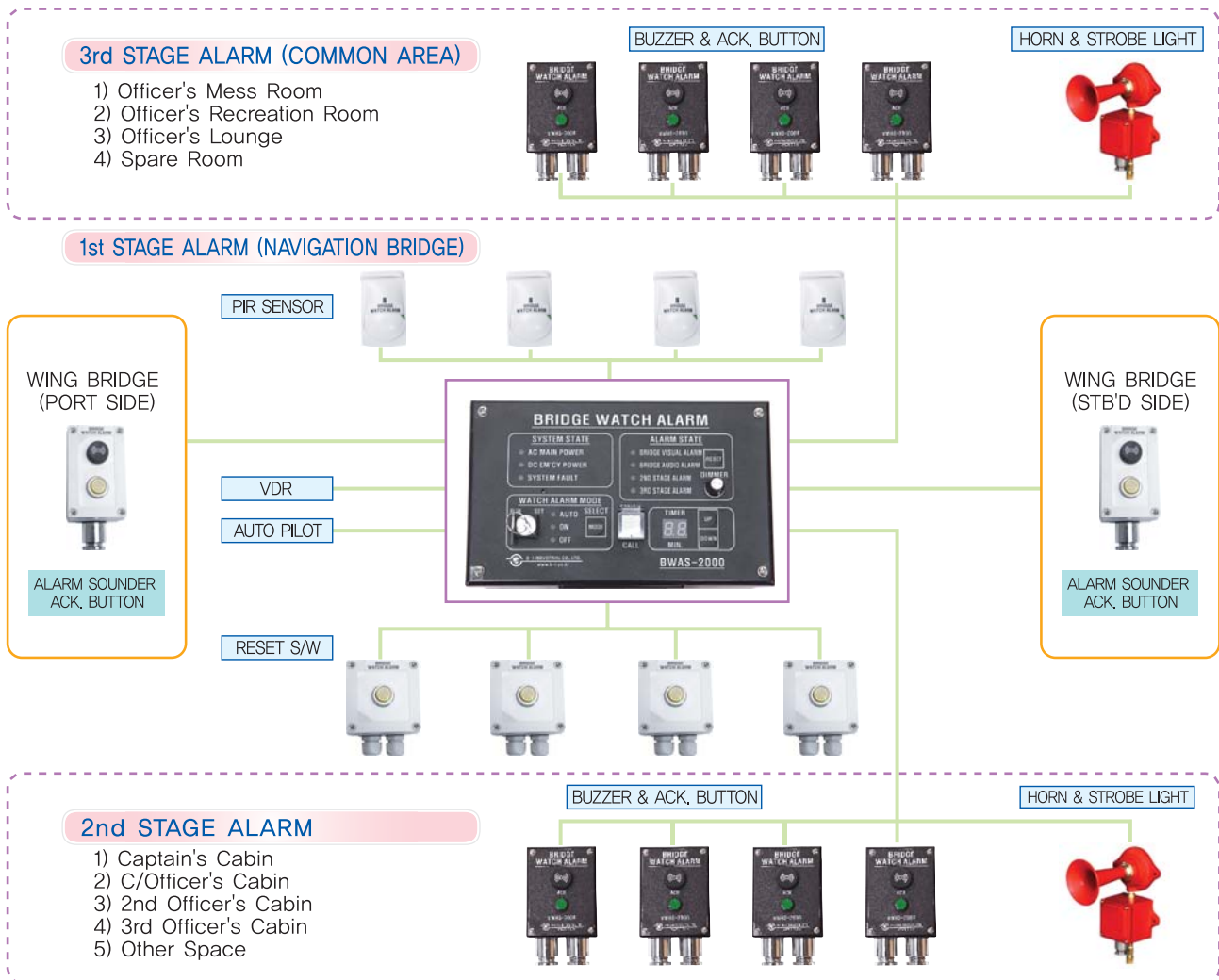## Certificate status of BWAS-2000

- DNV (Det Norske Veritas)
- LR (Lloyd's Register of Shipping)
- KR (Korean Register of Shipping)

■ REMARK

BWAS-2000 holds a type approval certificate issued by DNV, LR, KR & KG.
If other class's certificate is required, we will apply and obtain it within 2 months.

System Configuration

3rd STAGE ALARM (COMMON AREA)

1) Officer's Mess Room
2) Officer's Recreation Room
3) Officer's Lounge
4) Spare Room

BUZZER & ACK. BUTTON

HORN & STROBE LIGHT

1st STAGE ALARM (NAVIGATION BRIDGE)

PIR SENSOR

WING BRIDGE (PORT SIDE)

ALARM SOUNDER ACK. BUTTON

VDR

AUTO PILOT

RESET S/W

BRIDGE WATCH ALARM

SYSTEM STATE
- AC MAIN POWER
- DC EM'CY POWER
- SYSTEM FAULT

ALARM STATE
- BRIDGE VISUAL ALARM
- BRIDGE AUDIO ALARM
- 2ND STAGE ALARM
- 3RD STAGE ALARM

WATCH ALARM MODE
- AUTO
- ON
- OFF

DIMMER

TIMER MIN

CALL

BWAS-2000

WING BRIDGE (STB'D SIDE)

ALARM SOUNDER ACK. BUTTON

2nd STAGE ALARM

1) Captain's Cabin
2) C/Officer's Cabin
3) 2nd Officer's Cabin
4) 3rd Officer's Cabin
5) Other Space

BUZZER & ACK. BUTTON

HORN & STROBE LIGHT

Key Features

◉ **Cable-less & Minimum Cable Layout using LAN / Power Line Communication**
◉ **Simple & Cost saving installation can be undertaken by competent ship's engineer**
◉ **Exact Compliant with IMO resolution MSC 128(75)**
● Applied all marine class type approval & certificate.
● Monitors the watch officer's presence
● Various Interface with RS 485, NMEA, etc.
◉ **High Reliable operation (PIR Motion Sensor)**
● Wide Detecting Range (12m x 12m, 85' Wide)
● Applicable to Various Application using Quad Zone Logic
● Emergency Call Function
◉ **Interface to VDR, Auto-pilot & Ship's alarm system**

Specification for BWAS-2000

1) Main Control & Alarm Panel (MCU)

- Main Power Source : 110 / 220V AC   - Back up Power Source : DC 24V
- Wall or Flush Mounting   - Input : RS 485, 422, NMEA0183 Autopilot
- Output : RS 485, 422, NMEA0183 VDR (No interface box needed)
- Automatic Dimmer Function   - Emergency Call Facility
- Interface Signal
  - 2nd Stage Alarm Unit   - 3rd Stage Alarm Unit
  - Reset Switch   - PIR Motion Sensor

2) 2nd & 3rd Stage Alarm Unit

- Power : DC 12V
- Construction (Mild Steel Enclosure)
  - Internal Buzzer   - Alarm LED - Reset Button

3) Alarm Reset Switch

- Watertight Type (Wing Bridge)   - Non Water Tight Type (Nav. Bridge)
- Mild Steel Enclosure

4) PIR Motion Sensor

- Power Source : 12V DC
- Detecting Range : 12m / 85°
- Applicable to various Application
  using QUAD zone logic

B-I INDUSTRIAL CO., LTD.

ISO 9001 REGISTERED
MGMT. SYS.
RvA C 024
DNV Certification B.V..The Netherlands

Distributor