FURUNO’s Bridge Alarm System manages the onboard equipment alarms and monitors watch officer’s presence for early detection of emergency

- Meets IMO resolution MSC.128(75) for “Bridge Navigational Watch Alarm System”
- Collectively manages and presents the alarm information on the display unit
- Alarm information is sorted and displayed according to the set priority
- Watch Safety System to monitor the watch officer’s presence to minimize failure at avoiding approaching danger
- Transmits alarm to the backup officer in accommodation, if watch officer fails to respond to the active alarm or emergency call
- 3 operation modes available: One-Man, Bridge Attended and Harbour

The Bridge Alarm System BR-1000 collectively controls the warning notice from equipment onboard and monitors watch officer’s presence for maritime casualty avoidance. The BR-1000 performs the following two functions: Bridge alarm system and Watch safety system.

In the bridge alarm system function, the Bridge Panel of the BR-1000 in the wheelhouse generates the visual and audible alarms upon the equipment alarm’s activation. If the alarm is not acknowledged at this stage, the BR-1000 will transmit the alarm to the Cabin Panels in other sections of the vessel.

Also, the BR-1000 monitors the watch officer’s presence through watch safety system function. A watch officer is required to press any keys of the equipment or Timer Reset Panel at certain intervals. When the officer fails to press the key within pre-set intervals, the visual and audible alarms will be generated in the wheelhouse. If the officer doesn’t respond to the alarm, the BR-1000 transmits the alarm to the Cabin Panels installed other sections of the vessels in order to inform backup officers of the watch officer’s absence.

The BR-1000 offers 3 operation modes: One-man, Bridge Attended and Harbour. In One-Man operation mode, both bridge alarm system and watch safety system work. In Bridge Attended mode, visual and audible alarm will be generated in the wheelhouse, but the alarm will not transferred to the Cabin Panels. In Harbour mode, visual alarm will be activated only on the Bridge Panel in the wheelhouse, not be transferred to the Cabin Panels.

The BR-1000 meets the IMO MSC. 128(75). The Processor Unit has total of 48 ports to interface the equipment onboard and watches their alarm status. It also has 7 ports for the operator’s presence inputs. Watertight Timer Reset Panel can also be selected (optional supply). Up to 14 Cabin Panels can be installed on a ship.
**Bridge alarm system**

The BR-1000 monitors the equipment alarms and presents the equipment status in the Bridge Panel.

1. When an equipment alarm is activated, the Bridge Panel automatically displays a list of the equipment generating alarm. “Bridge Alarm” icon flashes and the alarm is generated in 30 seconds. (First Stage)
2. If the alarm is not acknowledged in the First Stage, the BR-1000 transmits the alarm to the selected Cabin Panels. (Second Stage)
3. If the alarm is not acknowledged within the pre-set time, the system transmits the alarm to all Cabin Panels. (Third Stage)
4. The buzzer stops when the officer presses the [BUZ STOP] / [ACK] button. When the cause of the alarm is removed, the Bridge Panel returns to the normal mode.

**Watch safety system**

The BR-1000 detects the watch officer’s presence to ensure constant watch.

1. While the watch safety system is active, the watch officer in the wheelhouse have to press the button on Timer Reset Panel or operate interfaced equipment at certain intervals. (3-12 min.)
   - If the watch officer does not press the button on Timer Reset Panel or operate interfaced equipment, the Bridge Panel and the Timer Reset Panel generate the visual and audible alarms in 30 seconds. (First Stage)
2. If the alarm is not acknowledged in the First Stage, the BR-1000 transmits the alarm to the selected Cabin Panels in the back-up officer’s room and public room. (Second Stage)
3. If the alarm is not acknowledged within the pre-set time, the system transmits the alarm to all Cabin Panels. (Third Stage)
4. The buzzer stops when the officer presses the [BUZ STOP] / [ACK] button. The Bridge Panel will reset the timer and show the normal mode, when the alarm is acknowledged by the watch officer.
### SPECIFICATIONS

**Model** BR-1000

#### GENERAL
- **Standards**: IMO MSC. 128(75)
- **Screen Size**: 7" color LCD
- **Panel Number**: 480 x 234

#### BRIDGE PANEL
- **LAN**: 100base-TX
- **Power Fail**: 1 ch
- **Alarm Input**: 48 ch
- **Local ACK**: 12 ch
- **Operator’s Fitness**: 7 ch
- **Operator ACK**: 1 ch
- **Auto Mode**: 1 ch
- **TCS Mode**: 1 ch
- **System Failure**: 2 ch
- **External Alarm**: 1 ch
- **Output**: Remote ACK

#### PROCESSOR UNIT
- **Input**: Operator’s Fitness
- **Operator ACK**: 1 ch
- **External Alarm**: 1 ch
- **Output**: Panel Test

#### MODBUS
- **Cabin Panel Control**: 2 ch
- **Timer Reset Panel Control**: 2 ch

#### CABIN PANEL
- **Input**: 12 VDC
- **Output**: Duty Lamp
- **Alarm Lamp**: Buzzer
- **Buzzer**: 1 ch

#### TIMER RESET PANEL
- **Input**: 12 VDC
- **Output**: Watch Alarm Lamp
- **Bridge Alarm Lamp**: Buzzer
- **Buzzer**: 1 ch

#### POWER SUPPLY
- **Output**: 12 VDC
- **Input**: PR-240
- **24 VDC**

#### ENVIRONMENT
- **Temperature (IEC 60945-4)**: -15°C to +55°C
- **Processor Unit**
- **Cabin Panel**
- **Timer Reset Panel**
- **Bridge Panel (Flush Mount Type)**
- **Wateright Timer Reset Panel**

#### EQUIPMENT LIST

<table>
<thead>
<tr>
<th>Model</th>
<th>BR-1000</th>
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</thead>
<tbody>
<tr>
<td><strong>Standard</strong></td>
<td></td>
</tr>
<tr>
<td>1 Bridge Panel</td>
<td>BR-1010 1 unit</td>
</tr>
<tr>
<td>2 Processor Unit</td>
<td>BR-1020 1 unit</td>
</tr>
<tr>
<td>3 Cabin Panel</td>
<td>BR-1030 1-14 unit(s)</td>
</tr>
<tr>
<td>4 Timer Reset Panel</td>
<td>BR-1040 1-4 unit(s)</td>
</tr>
<tr>
<td>5 AC/DC Power Supply Unit</td>
<td>PR-240 1 unit</td>
</tr>
<tr>
<td>6 Cable (3.5 m) with 3A Fuse</td>
<td>MJ-A3SPF0013-035 (3A) 1 set</td>
</tr>
<tr>
<td>7 Installation Materials and Spare Parts</td>
<td>1 set</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Option</strong></th>
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</thead>
<tbody>
<tr>
<td>- Processor Unit</td>
<td>BR-1020</td>
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<tr>
<td>- HUB</td>
<td>HUB-101</td>
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<tr>
<td>- Cabin Panel</td>
<td>BR-1030</td>
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<tr>
<td>- Timer Reset Panel</td>
<td>BR-1040</td>
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<tr>
<td>- Watertight Timer Reset Panel</td>
<td>BR-1060</td>
</tr>
<tr>
<td>- Bracket for BR-1010 with Installation Materials</td>
<td></td>
</tr>
</tbody>
</table>

### INTERCONNECTION DIAGRAM

**Boarding Box**
- Processor Unit (BR-1000)
- Watertight Timer Reset Panel (BR-1040 / BR-1060)
- Watertight Timer Reset Panel
- Cabin Panel

**AG/DC Power Supply** (PR-240)

**Option or Local Supply**

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**SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE**