

**SPECIFICATIONS OF BRIDGE NAVIGATIONAL WATCH ALARM SYSTEM
BR-500**

1 MAIN ALARM PANEL (BR-510)

- 1.1 Display 4.3-inch color LCD, 480 x 272 dots
- 1.2 Brilliance 0.15 to 500 cd/m² (w/o shield film)
- 1.3 Status indication Dormant period, Alarm stage, Backup officer, Power status, Operation mode*, Active alert list/ Alert log
*: Auto operating mode is not available for SOLAS vessels.
- 1.4 Other functions Backup officer selection, Emergency call, Officer call

2 PROCESSOR UNIT (BR-520)

- 2.1 Input port
 - Operator fitness 4 ch (normal open)
 - Autopilot mode 1 ch (normal open)
 - Backup navigator 1 ch (normal close)
- 2.2 Output port
 - System failure 2 ch (normal close: legacy mode or normal open: Alert I/F 1 and 2)
 - Serial signal 1 ch (IEC61162-1)
 - Cabin panel control 12 sets max. (3 sets: parallel connection)
 - Timer reset panel control 6 sets max. (2 sets: parallel connection)
 - Motion detector 2 ch
 - Flash beacon 3 ch
- 2.3 Data sentences IEC61162-1 Ed.4
 - Input ACK, ACN, EVE, HBT
 - Output ALC, ALF, ALR, ARC, HBT, PFEC (BNwtr, BNmbo)

3 CABIN PANEL (BR-540, OPTION)

- 3.1 Input voltage 12 VDC: 100 mA or less (supplied from processor unit)
- 3.2 Visible indication Alarm LED, Duty LED
- 3.3 Audible alarm Buzzer
- 3.4 Wire breaking diagnose Press button
- 3.5 Dimmer Inner volume

**4 TIMER RESET PANEL (BR-530, OPTION)/
WATERTIGHT TIMER RESET PANEL (BR-550, OPTION)**

- 4.1 Visible indication Alarm LED, Reset LED
- 4.2 Audible alarm Buzzer
- 4.3 Timer reset Press button
- 4.4 Wire breaking diagnose Continuing pressure of button
- 4.5 Dimmer Inner volume
- 4.6 Linkage Alarm LED linked with key light

5 MOTION DETECTOR (BR-560, OPTION)

- 5.1 Detection method Infrared body motion sensor
- 5.2 Distance 5 m max.
- 5.3 Temperature gap 7 °C (forward)
- 5.4 Angle ±40°
- 5.5 Object size 700 mm x 250 mm (minimum)
- 5.6 Displacement distance 1.4 m (5 m forward)
- 5.7 Moving speed 0.8 m/s to 1.2 m/s
- 5.8 Signal output Contact closure (normal open)

Note: Above all conditions are required for detection without fail.

6 FLASH BEACON (BR-570, OPTION)

- 6.1 Previous visible alarm Watch alarm lamp (yellow)
- 6.2 Dimmer External or inner volume
- 6.3 Linkage Lamp brilliance linked with key light

7 POWER SOURCE

100-230 VAC: 0.6-0.4 A, 1 phase, 50/60 Hz
 24 VDC: 1.0 A (back-up source)

8 ENVIRONMENTAL CONDITION

- 8.1 Ambient temperature
 - Watertight timer reset panel -25°C to +55°C
 - Others -15°C to +55°C
- 8.2 Relative humidity 93% at 40°C
- 8.3 Degree of protection
 - Processor unit IP22 (bulkhead), IP20 (tabletop)
 - Main alarm panel, Cabin panel, Timer reset panel, Motion detector, Flash beacon
IP22
 - Watertight timer reset panel IP56
- 8.4 Vibration IEC 60945 Ed.4

9 COATING COLOR

- 9.1 Watertight timer reset panel N1.0
- 9.2 Others N2.5