SPECIFICATIONS

Model	BR-1000	
GENERAL		
Standards	IMO MSC. 128(75)	
BRIDGE PANEL		
Screen Size	7" color LCD	
Pixel Number	480 x 234	
PROCESSOR UNIT		
LAN	100base-TX	
Input	Alarm Input	48 ch
	Local ACK	12 ch
	Operator's Fitness	7 ch
	Autopilot Mode	Auto Mode 1 ch
		TCS Mode 1 ch
	Power Fail	1 ch
	Panel Test	1 ch
Output	Remote ACK	12 ch
	System Failure	2 ch
	External Alarm	1 ch
MODBUS	2 ch	
Cabin Panel Control	Output	12 VDC
		Duty Lamp
		Alarm Lamp
		Buzzer
Timer Reset Panel Control	Output	12 VDC
		Watch Alarm Lamp
		Bridge Alarm Lamp
		Buzzer
	Input	Timer Reset
CABIN PANEL		
Input	12 VDC	
	Duty Lamp	
	Alarm Lamp	
	Buzzer	
Output	Panel Test	
TIMER RESET PANEL		
Input	12 VDC	
	Watch Alarm Lamp	
	Bridge Alarm Lamp	
	Buzzer	
Output	Timer Reset	
POWER SUPPLY		
PR-240	24 VDC	
ENVIRONMENT		
Temperature (IEC 60945-4)	Bridge Panel	-15°C to +55°C
	Processor Unit	-15°C to +55°C
	Cabin Panel	-15°C to +55°C
	Timer Reset Panel	-15°C to +55°C
	Watertight Timer Reset Panel	-25°C to +55°C
Waterproofing (IEC 60529)	Bridge Panel	Front: IP22 Back: IP20
	Processor Unit	IP20
	Cabin Panel	Front: IP22 Back: IP20
	Timer Reset Panel	Front: IP22 Back: IP20
	Watertight Timer Reset Panel	Front: IP56 Back: IP20
Vibration (IEC 60945-4)		

EQUIPMENT LIST

| Model	BR-1000		
Standard			
1	Bridge Panel	BR-1010	1 unit
2	Processor Unit	BR-1020	1 unit
3	Cabin Panel	BR-1030	1-14 unit(s)
4	Timer Reset Panel	BR-1040	1-4 unit(s)
5	AC-DC Power Supply Unit	PR-240	1 unit
6	Cable (3.5 m) with 3A Fuse	MJ-A3SPF0013-035 (3A)	1 set
7	Installation Materials and Spare Parts		1 set
Option			
-	Processor Unit	BR-1020	*Max. 2 units in one system
-	HUB	HUB-101	*Necessary if 2 Processor Units are equipped
-	Cabin Panel	BR-1030	
-	Timer Reset Panel	BR-1040	
-	Watertight Timer Reset Panel	BR-1060	
-	Bracket for BR-1010 with Installation Materials		

Bridge Panel
BR-1010
2.1 kg 4.6 lb

Cabin Panel
BR-1030
0.3 kg 0.7 lb
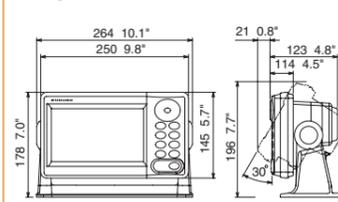
Bridge Panel (Flush Mount Type)
BR-1010
1.9 kg 4.1 lb

Timer Reset Panel
BR-1040
0.3 kg 0.7 lb
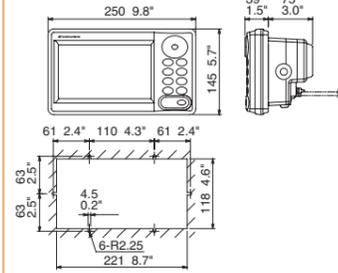
Processor Unit
BR-1020
13.0 kg 28.6 lb
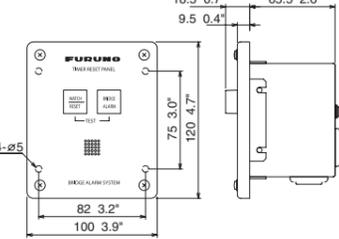
Watertight Timer Reset Panel
BR-1060
0.9 kg 1.9 lb
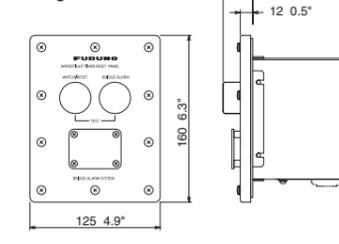
INTERCONNECTION DIAGRAM
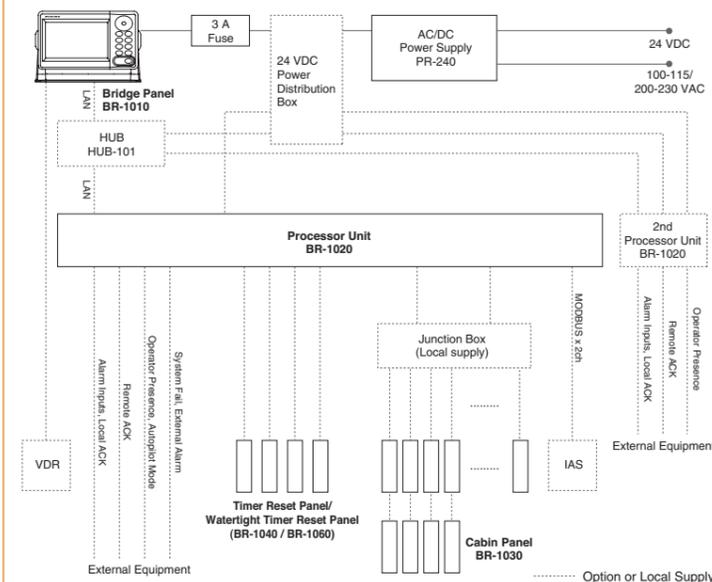
FURUNO

BRIDGE ALARM SYSTEM

BR-1000

FURUNODEEPSEA.com

www.furuno.com

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

Bridge Panel **Cabin Panel** **Timer Reset Panel** **Watertight Timer Reset Panel**

BRIDGE ALARM SYSTEM

▶ **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.

Normal (No Alarm) Mode

The list of the equipment generating alarm is shown, and "Bridge Alarm" icon flashes.
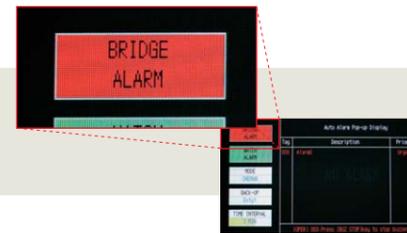
The buzzer stops when the officer presses the [BUZ STOP] / [ACK] button. However, if the problem is not resolved, the equipment name and "Bridge Alarm" icon will be shown in a different color. When the problem is resolved, the display turns to the normal mode.

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 pubic 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.

The progress bar at bottom left marked out by degrees.
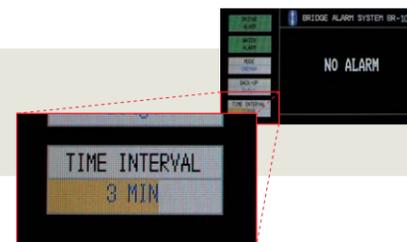
If the watch officer does not press the button on Timer Reset Panel or operate interfaced equipment, the panel will turn to the visual alarm mode.