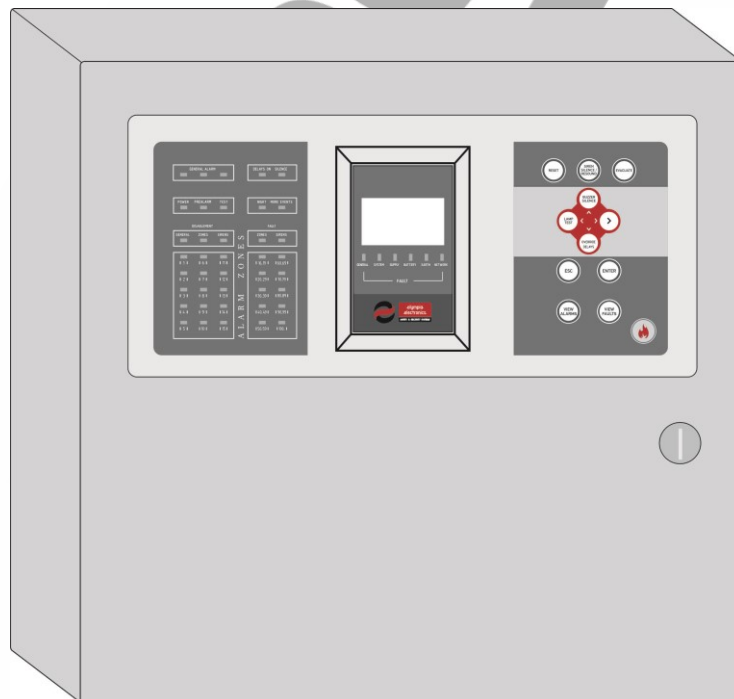# BSR-1000, BSR-1001, BSR-1002, BSR-1004

Analogue Addressable Fire Alarm Panel
1, 2 and 4 loops

1 General Information

Thank you for your trust in our products
Olympia Electronics – European manufacturer

1.1 *General description*

The **BSR-100X** series of **Analogue Addressable Fire Alarm Panels** consists of 3 models (1, 2 and 4 loop connections), named **BSR-1001**, **BSR-1002** and **BSR-1004** respectively, all sharing the same control interface, functionality and indications. The accompanying software application for Windows PC, **BSR-100X** provides utilities for calculating installation parameters, configuring the control panel and keeping an event log record.

All BSR-100X models include 4 outputs for conventional sirens, an alarm relay, a fault relay and a programmable auxiliary relay. Two 12V lead acid (Pb) batteries are required in each control panel. The supported battery capacity is 7Ah, 9Ah, 12Ah or 15Ah, which must be calculated in accordance with the size of the installation (number of devices) and the required emergency duration (during mains interruption). It is always recommended to use the "**Battery Calculator**" tool (included in BSR-100X software app) to calculate the required battery capacity according to your installation needs.

The available loop output connections are: 1 for BSR-1001, 2 for BSR-1002 and 4 for BSR-1004. Each loop output connection can support up to 150 addressable units (smoke and heat detectors, addressable sirens, manual fire call points, etc.). The "**Loop Calculator**" tool (included in BSR-100X software app) shall be used for cable selection according to your installation size.

All features and indications are in accordance with European standards EN 54-2 and EN 54-4.

The BSR-100X series Analogue Addressable Fire Alarm Panels is ideal for medium to large scale facilities such as department stores, hotels and factories.

An extended variety of settings and functionalities for controlling the fire alarm system (such as sirens, output relays and other) under certain events (by zone or task), is available via the software BSR-100x (for Windows PC). The communication between PC and control panel is via a USB cable.

The repeater BSR-1000 along with the BSR-100x fire detection panel series, allow the user to execute basic functions for controlling, monitoring as well as reading the event log of the system. All, through the built-in keypad and the LCD graphic display.

1.2 *Safety*

To ensure proper use of a device all accompanying documents must be read carefully.

This product must be installed, commissioned and maintained by **trained technician personnel** in accordance with:

- The regional regulations for the installation of electrical appliances in buildings
- The regional Fire Safety regulations
- Manufacturer's instructions

-The device mains power supply is rated at 220-240V AC / 50-60Hz, being a **Class I** product (the corresponding terminal contact with the "Protective Earth" ⏚ marking, inside the device, must be connected to the building's ground to ensure proper function and safety).

- Being a type B equipment (permanently connected to mains) the mains power supply to the device must be connected to the existing building's electrical installation, with its own separate power line and circuit-breaker rated at 16A, labeled with **"Fire Detection System - Do not switch off"**.

1.3   *Indicators and Controls*

The control panel's LCD screen displays information regarding the current state of the fire detection system. The front face is also equipped with LED indicators for essential indications (alarm, fault, status, zones, etc.).

On the right side of the front face there is an 11-key keypad for controlling and configuring the fire detection control panel.

The following picture describes in general:

1.3.1   **Control panel's front**

Status indicators

LCD screen

Zone in Alarm indicators

Control unit fault indicators

Control keypad

Figure1-1. Control panel's front

The control panel's front is equipped with LED indicators and an LCD screen that provide essential information regarding the fire detection system state. The LED indicators provide general information (e.g. if there is any alarm, the General Alarm LEDs are lit), while more detailed information is displayed on the screen (e.g. ALARM 1, ROOM 214).

Next to the screen there are 11 control keys to operate the panel. These keys correspond to basic panel operations, such as left, right, up, down, enter (select), esc (exit or a level back), or back. There are also 5 special keys with specific functions (Reset, Siren Silence/Resound, Evacuate, View alarms, View faults)

Generally, by pressing a key, an action takes place (e.g. Reset), or a menu with grouped functions is displayed (see section 1.3.2).

The control panel's front door is secured with a key lock for accessing the interior.

1.3.2 **Control panel's keypad**

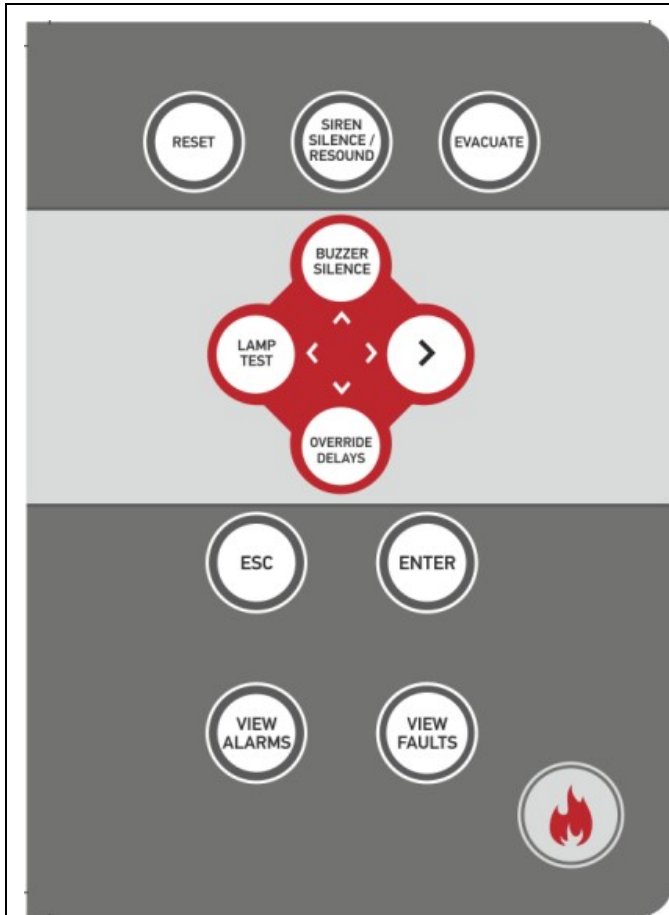*Figure1-2. Control panel's keypad*

RESET	Resets the panel from alarm state to quiescent, clears current faults
SIREN SILENCE / RESOUND	Stops or resumes sirens during alarm mode
EVACUATE	Evacuation of the building. Manual activation of all alarm outputs
BUZZER SILENCE	Mutes / unmutes audible buzzer
LAMP TEST	Turns on all LED indicators for 5 seconds to visually inspect for functionality
OVERRIDE DELAYS	Immediately activates all alarm outputs (sirens, relays) ignoring the pre-set delays, during an alarm event (Access level 2)
ESC	Go to previous menu – Exit
ENTER	Confirm selection
VIEW ALARMS	View current alarms (when available)
VIEW FAULTS	View current faults (when available)
ARROWS	Menu navigation keys (up / down / left / right) – move to selections, input values (up – increase / down – decrease)

1.3.3 **LED indicators**

The LED indicators are divided into groups, according to their purpose. Their color also define their event type, red LEDs indicate alarm, yellow LEDs indicate status or fault, green LED indicates the mains power. In details, LEDs from top to bottom are:

Figure1-3.LED indicators

GENERAL ALARM		red	System is in fire alarm state
DELAYS ON		yellow	Delays have been set for one or more outputs
SILENCE		yellow	Sirens and relay outputs have been temporarily deactivated (during alarm state)
POWER		green	Mains power connection indication (steady lit – ok / blinking – power down)
PREALARM		yellow	Prealarm detected
TEST		yellow	The system or part of it is under test, fire detection is bypassed
NIGHT		yellow	Operating mode "NIGHT" (alarm value triggering may differ)
MORE EVENTS		yellow	More events than those displayed on home screen are active
DISABLEMENT	**GENERAL**	yellow	General indicator of deactivated segments
	ZONES	yellow	One or more zones are disabled
	SIRENS	yellow	Sirens disabled
FAULT	**ZONES**	yellow	Fault in zone
	SIRENS	yellow	Fault in siren
ALARM ZONES		red	Alarm in the corresponding zone, for the first 15 zones. The rest 113 zones are grouped into the next 10 LED indicators.

On the figure below appear the LED indicators below the screen. All of them refer to specific faults of the control panel (according to the description) and are yellow.
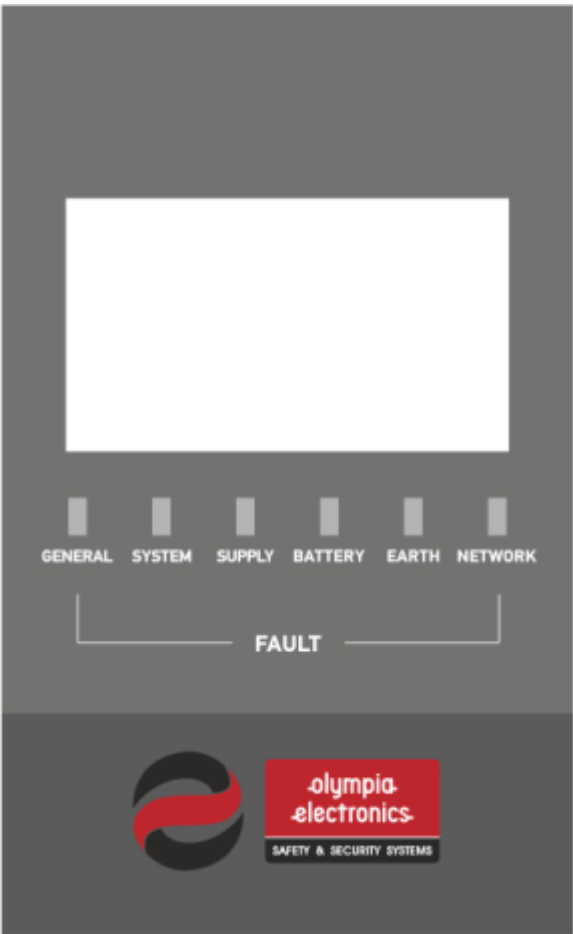

Figure1-4. LED Indicators below the screen

GENERAL FAULT	General panel fault
🌐 SYSTEM FAULT	System fault (hardware)
SUPPLY FAULT	Power failure (mains)
BATTERY FAULT	Battery fault
EARTH FAULT	Unintended connection of power circuit conductors with the earth
NETWORK FAULT	Panel network communication fault