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SAFETY & SECURITY SYSTEMS

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# FIRE DETECTION SYSTEMS

2023

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## FIRE DETECTION SYSTEMS

ADDRESSABLE | CONVENTIONAL

# FIRE DETECTION
## ANALOGUE ADDRESSABLE FIRE DETECTION SYSTEM

**BSR-1001** EVPU
**BSR-1002** EVPU
**BSR-1004** EVPU
Addressable fire detection control panels with1, 2 or 4 loops/128 zones (Olympia A Protocol)

**BSR-1000** EVPU Repeater panel for BSR-100x

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 calcul ated in accordance with the size of the installation (number of devices) and the required emergency duration (during mains interruption).

The available loop 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) .

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 because of the ability to have up to 4 panels networking and up to 8 repeaters networking.

The BSR-1000 repeater provides to the user the ability to perform basic system functions and an overview of the current state and events of the panel network via the built-in keypad and illuminated graphics display.

IP42

**BSR-6155** EVPU
Addressable optical smoke detector with intergrated isolator (Olympia A Protocol)

- Standby consumption 195μA, alarm consumption 2,5mA
- Smoke concentration sensitivity adjustable from 0.107 to 0.300 in 0.010 dB/m steps

*All the above models can be manufactured in anthracite color upon demand with code BS-xxx/A/C*

IP42

**BSR-6157** EVPU
Addressable optical smoke and heat detector , Rate-Of-Rise or Static [user programmable], with integrated isolator (Olympia A Protocol).

- Standby consumption 195μA, alarm consumption 2,5mA
- Smoke concentration sensitivity adjustable from 0.107 to 0.300 in 0.010 dB/m steps
- Class A1R/A1S

IP42

**BSR-6160** EVPU
Addressable heat detector Rate-Of-Rise or Static (user programmable), with integrated isolator (Olympia A Protocol)

- Standby consumption 90μA, alarm consumption 2,5mA
- Class A1R/A1S/CS

IP20

**BSR-8120** EVPU
Addressable twin input/output unit with integrated isolator (Olympia A Protocol)

- External voltage 12-30V DC
- Standby consumption 200μA, alarm consumption 2,5mA

IP20

**BSR-5136** EVPU
Addressable manual call point unit with integrated isolator (Olympia A Protocol)

- Standby consumption 90μA, alarm consumption 2,5mA

IP65

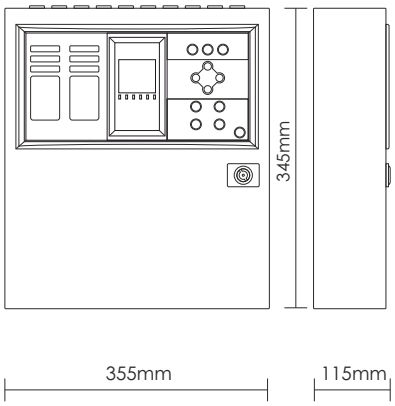
**BSR-5132/WP** EVPU
Waterproof addressable sounder with beacon and integrated isolator (Olympia A Protocol)

- Standby consumption 90μA, alarm consumption 11,2 to 52,4mA
- Maximum sound level 101dB

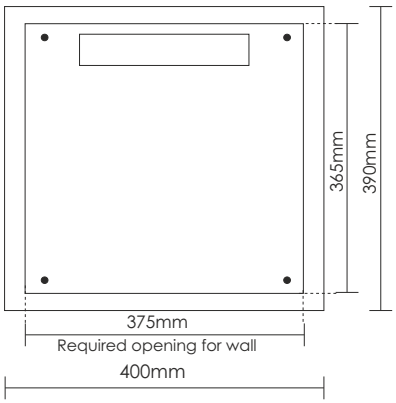
# Technical Characteristics

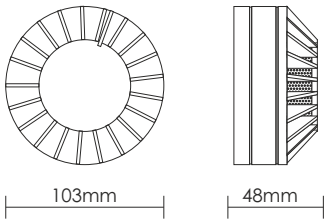
| | BSR-1001<br>Addressable fire detection panel<br>1 loop / 128 zones | BSR-1002<br>Addressable fire detection panel<br>2 loops / 128 zones | BSR-1004<br>Addressable fire detection panel<br>4 loops / 128 zones | BSR-1000<br>Repeater panel |
|---|---|---|---|---|
| **Mains power input** | 220-240V AC/50-60HZ | | | |
| **Consumption** | 130 VA max | | | |
| **Autonomy** | up to 72 hours (without loads at 24VM and 24VP outputs) | | | |
| **Conventional sounder / siren circuits** | 4 x 24VDC (± 3VDC) / 300mA max<br>short / open circuit monitored<br>10KOhm termination resistor | | | |
| **24VP Output** | 24VDC (± 3VDC) permanent output / 300mA max short-circuit monitored | | | |
| **24VM Output** | 24VDC (± 3VDC) resettable output / 300mA max short-circuit monitored | | | |
| **Relay Output** | 3 relay contacts (30VDC/5A) | | | |
| **Total Load** | The total current of the panel (loops, siren circuits, outputs 24P, 24M) must not exceed 2A | | | |
| **Loop** | 1 loop | 2 loops | 4 loops | |
| **Battery Specifications** | | | | |
| Battery Type | 2 lead batteries sealed 12V / 7-15Ah | | | |
| Battery cut-off voltage | 20,5V | | | |
| Maximum battery current discharge | 2A max | | | |
| Battery resistance (ESR) | 1Ohm max(higher values will lead to battery resistance fault) | | | |
| **Structural characteristics** | | | | |
| Cover protection | IP 30 | | | |
| Construction materials | ABS/PC, electrostatically painted steel | | | |
| Dimensions (LxWxH) | 355 x 115 x 345 mm | | | |
| Weight (without batteries) | 4080 gr. | 4210 gr. | 4330 gr. | 4060 gr. |

## Dimensions

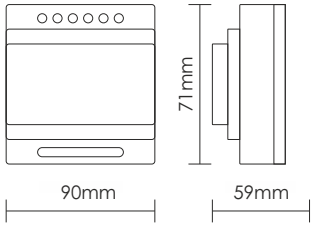



BSR-6160, BSR-6157 ,BSR-6155

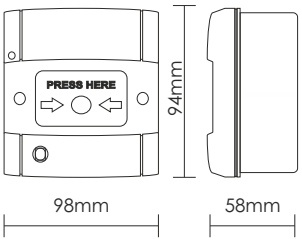


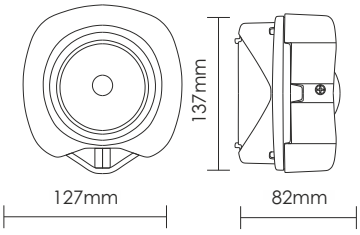

BSR-6155, BSR-6157, BSR-6160




BSR-8120




BSR-5136




BSR-5132/WP

# FIRE DETECTION
## CONVENTIONAL FIRE DETECTION SYSTEM


The family consists of 3 panels (8, 12 and 16 zones) with identical controls and indications. They have 2 outputs for sirens, an alarm relay, a fault relay and a programmable auxiliary relay.

For there operation, two A-986 (12V/7Ah) batteries are required. Alternatively two A-961(12V/9Ah) batteries can be used for greater autonomy.

In detail the BS-1638 panel has 8 zones, the BS-1642 has 12 zones and the BS-1646 has 16 zones.

All functions and indications are according to the European norms EN 54 - 2 and EN 54 - 4.

The panels offer up to 16 zones and are suitable for large installations such as shopping malls, hotels and factories.

They offer a wide range of settings and characteristics for controlling the installation equipment and sirens which can be easily adjusted using a PC via an Ethernet connection.

**BS-1638** EVPU
**BS-1642** EVPU
**BS-1646** EVPU
Conventional fire detection panels 8, 12, 16 zones

IP42

EVPU

**BS-655/A**
Optical smoke detector with base

- Standby consumption 90μA, alarm consumption 12mA
- Sensitivity 0.107dB/m
- Voltage 17-30V DC

IP42

EVPU

**BS-657/A**
Optical smoke/rate of rise heat detector with base

- Standby consumption 90μA, alarm consumption 12mA
- Sensitivity 0.107dB/m
- Class A1R
- Voltage 17-30V DC

IP42

EVPU

**BS-660/A**
Rate of rise heat detector with base

- Standby consumption 90μA, alarm consumption 12mA
- Class A1R
- Voltage 17-30V DC

IP65

EVPU

**BS-532/WP**
Waterproof sounder with beacon according to EN 54-3, EN 54-23, 32 different tones in 4 sound levels, 2 beacon functions

- Alarm consumption 18 to 51mA
- Maximum sound level 103dB

IP20

EVPU

**BS-536**
Manual call point

- Alarm current 8-30mA
- Alarm resistor 470ohm

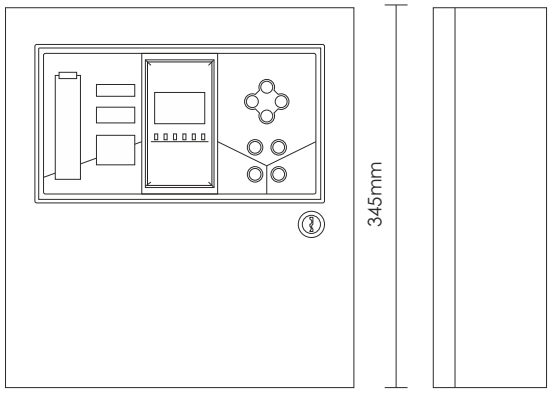

IP65

**BOX-530**
Waterproofing case for fire detection- extinguishing manual call point (stickers are included - fire alarm call point is not included)

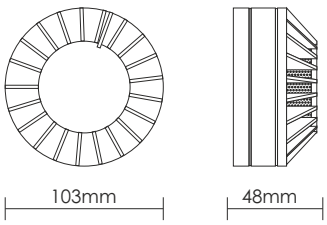
# Technical Characteristics

| | BS-1638<br>8 zones fire detection panel | BS-1642<br>12 zones fire detection panel | BS-1646<br>16 zones fire detection panel |
|---|---|---|---|
| **Mains power supply** | 220-240V AC/50-60HZ | | |
| **Consumption** | 100 VA | | |
| **Autonomy** | 72 hours with two 12V/7Ah batteries | | |
| **Alarm circuits** | Two 24V circuits that are monitored for open and short - circuit conditions (The maximum current for each circuit is 300mA) | | |
| **Output 24P** | 24VDC ( ±3VDC) permanent output with a maximum current of 0.3 A. The output is protected by a resetable electronic fuse | | |
| **Output 24M** | 24VDC ( ±3VDC) output which is interrupted during a reset. | | |
| **Output relays** | Three relay contacts that can handle up to 30V DC and 5 A maximum. All the output relays must be protected with fuses with the same rating. | | |
| **Total power** | The total output power (zone circuits, siren circuits, outputs 24P and 24M) must not exceed 1A | | |
| **Battery Specifications** | | | |
| Battery Type | 2 lead batteries sealed 12V / 7-15Ah | | |
| Battery cut of voltage | 21V | | |
| Maximum current batteries discharge | 1A | | |
| Battery maximum internal resistance Rimax | 1Ohm | | |
| **Structural characteristics** | | | |
| Cover protection | IP 30 | | |
| Construction materials | ABS – PC, electrostatically painted steel | | |
| Dimensions (LxWxH) | 345 x 106 x 348 mm | | |
| Weight (without batteries) | 3740gr | 3780gr | 3820gr |

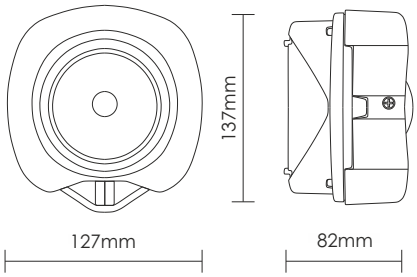
## Dimensions



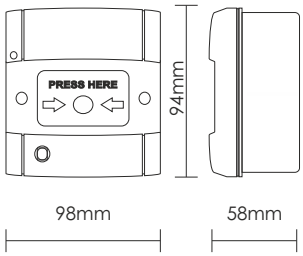

BS-1638, BS-1642, BS-1646



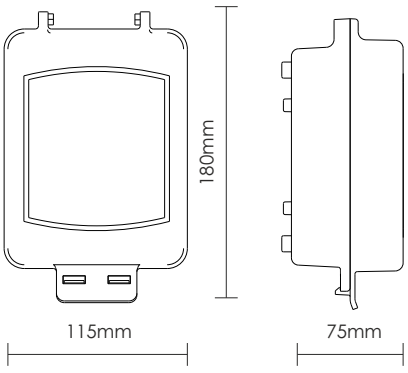

BS-655/A, BS-657/A, BS-660/A




BS-532/WP




BS-536




BOX-530

# FIRE DETECTION
## CONVENTIONAL FIRE DETECTION SYSTEM

The family of fire detection panels consist of 3 types (2, 4 and 6 zone) with identical operation and indications. The panels have 2 independent siren outputs, Alarm, Fault Relay and a programmable AUX relay.

The required batteries for the panels are two A-920 (12V/2.6Ah). All functions and indications are according to European Norms EN 54-2 and EN 54-4.

**BS-1632**
**BS-1634**
**BS-1636**

Conventional fire detection panels 2, 4, 6 zones

Dedal Attestation & Certification

## FIRE DETECTION ACCESSORIES SET BS-1620

Contains:

- BS-1632 conventional fire detection control panel.
- BS-655/A x 2 smoke detector.
- BS-536 manual call point.
- BS-532/WP siren with beacon.
- A-920 batteries 12V/2.6Ah x2 for the panel.

IP42

EVPU

**BS-655/A**

Optical smoke detector with base

- Standby consumption 90μA, alarm consumption 12mA
- Sensitivity 0.107dB/m
- Voltage 17-30V DC

IP20

EVPU

**BS-536**

Manual call point

- Alarm current 8-30mA
- Alarm resistor 470ohm

IP65

EVPU

**BS-532/WP**

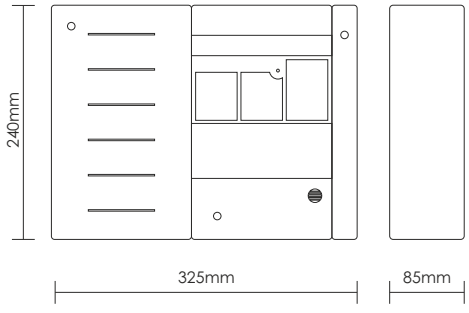
Waterproof sounder with beacon according to EN 54-3, EN 54-23, 32 different tones in 4 sound levels, 2 beacon functions

- Alarm consumption 18 to 51mA
- Maximum sound level 103dB

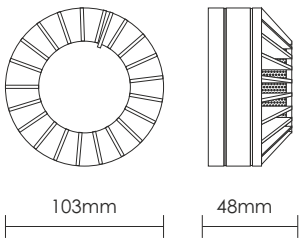
## Technical Characteristics

| | BS-1632<br>2 zone fire<br>detection panel | BS-1634<br>4 zone fire<br>detection panel | BS-1636<br>6 zone fire<br>detection panel |
|---|---|---|---|
| **Mains power input** | 220-240V AC / 50-60Hz | | |
| **Consumption** | 50VA | | |
| **Autonomy** | 72 hours (Maximum connected detectors 72 and no load at output 24VM and 24VP) | | |
| **Alarm circuits** | Two 24V circuits that are monitored for open and short circuit conditions (maximum current 300mA each). Each output is protected with a self-reseting electronic fuse. | | |
| **24P Output** | 24VDC ( ±3VDC) permanent output with maximum current output 0.3 A | | |
| **24M Output** | 24VDC ( ±3VDC) reset interrupted output with maximum current output 0.3 A | | |
| **Relay Output** | Three relay contacts with each one having 30VDC and maxium 5A | | |
| **Total Load** | The total output current (zones circuits, siren circuit, outputs 24P, 24M) must not exceed 600mA. | | |
| **Battery Specifications** | | | |
| Battery Type | | 2 x 12V Lead acid sealed 2.6Ah | |
| Battery cut-off voltage | | 21V | |
| Maximum current batteries discharge | | 900mA | |
| Battery maximum internal resistance Rimax | | 10hm | |
| **Structural characteristics** | | | |
| Cover protection | | IP30 | |
| Construction materials | | ABS - polycarbonate | |
| Dimensions (LxWxH) | | 325 x 240 x 85 mm | |
| Weight (without batteries) | 1345gr without battery | 1350gr without battery | 1360gr without battery |

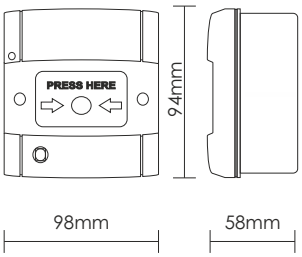
### Dimensions



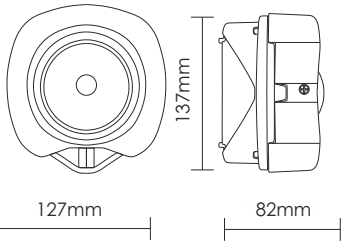

BS-1632, BS-1634, BS-1636




BS-655/A, BS-657/A, BS-660/A

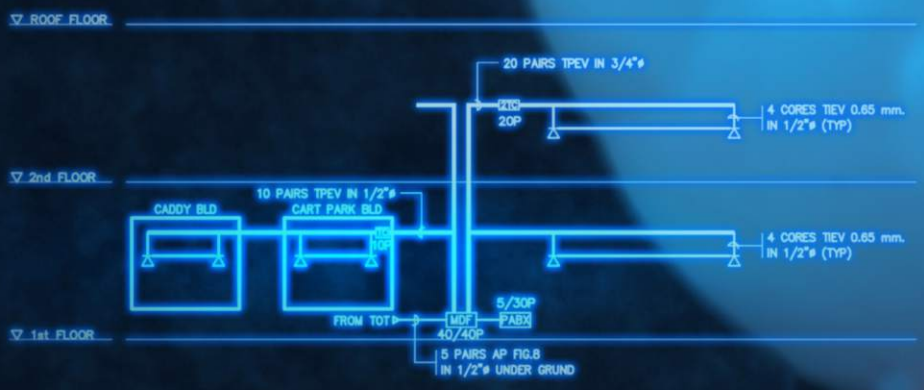



BS-536

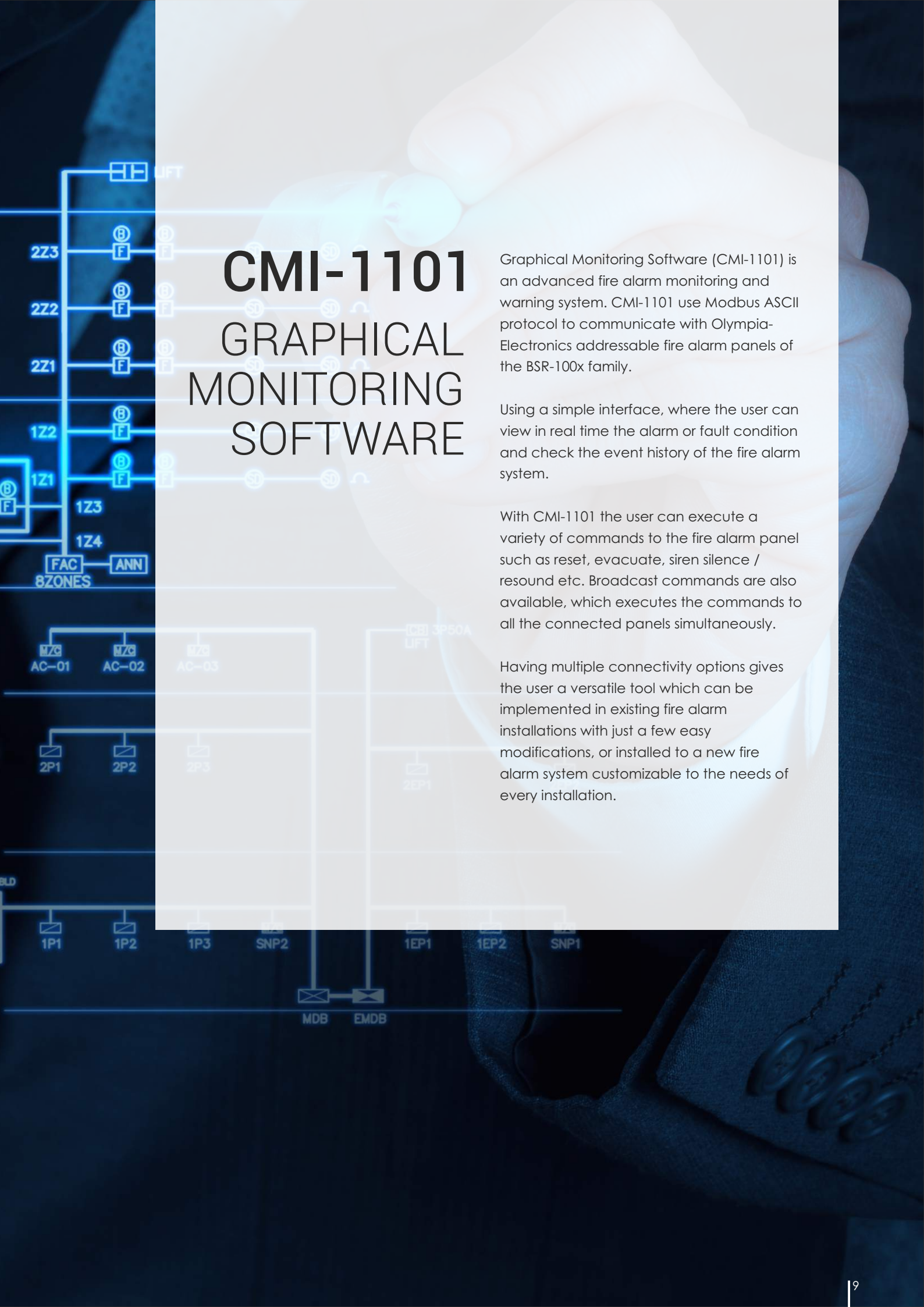



BS-532/WP


FIRE ALARM RISER DIAGRAM




TELEPHONE RISER DIAGRAM




# CMI-1101

## GRAPHICAL MONITORING SOFTWARE

Graphical Monitoring Software (CMI-1101) is an advanced fire alarm monitoring and warning system. CMI-1101 use Modbus ASCII protocol to communicate with Olympia-Electronics addressable fire alarm panels of the BSR-100x family.

Using a simple interface, where the user can view in real time the alarm or fault condition and check the event history of the fire alarm system.

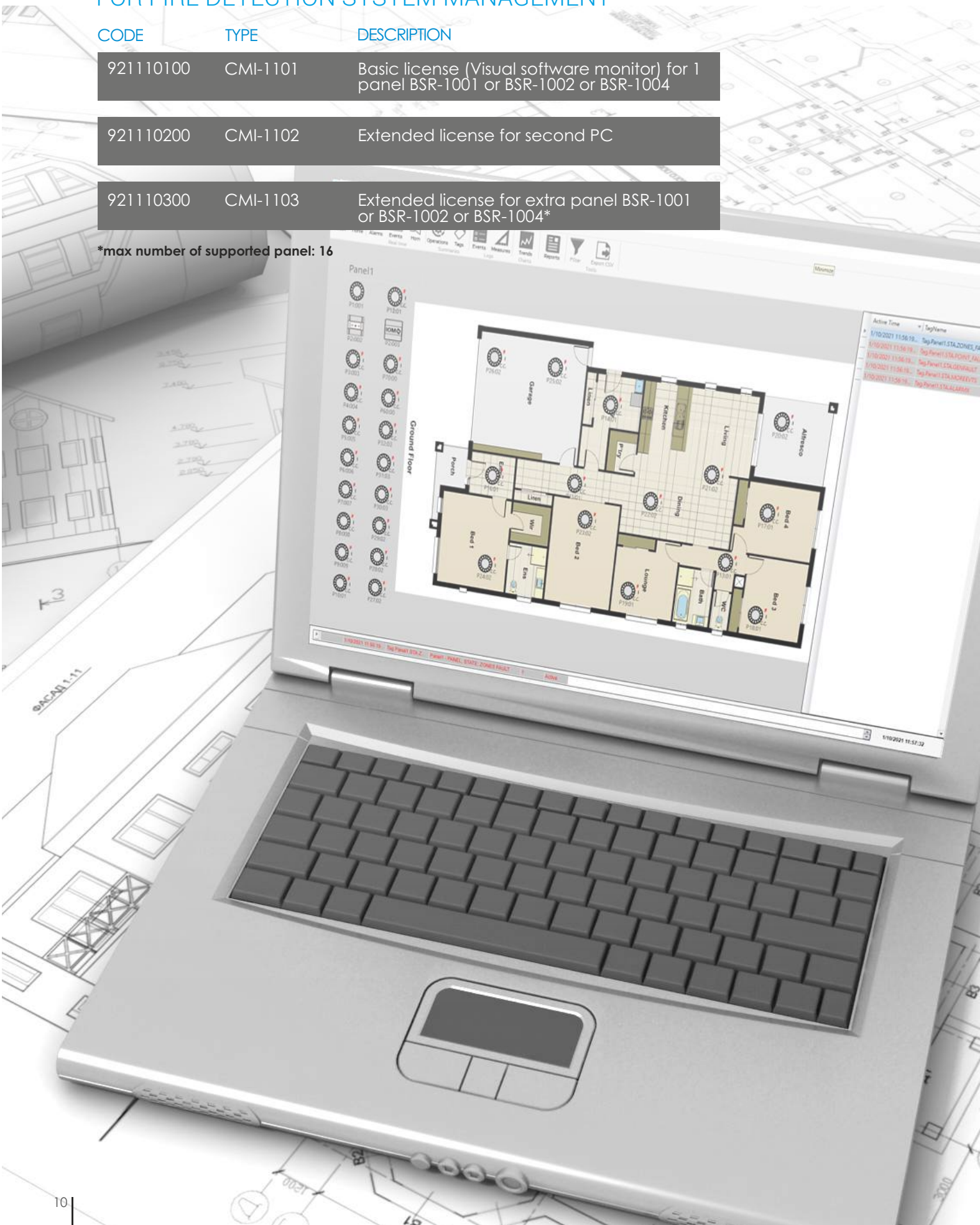
With CMI-1101 the user can execute a variety of commands to the fire alarm panel such as reset, evacuate, siren silence / resound etc. Broadcast commands are also available, which executes the commands to all the connected panels simultaneously.

Having multiple connectivity options gives the user a versatile tool which can be implemented in existing fire alarm installations with just a few easy modifications, or installed to a new fire alarm system customizable to the needs of every installation.

# GRAPHICAL ENVIRONMENT SOFTWARE FOR FIRE DETECTION SYSTEM MANAGEMENT

| CODE | TYPE | DESCRIPTION |
|---|---|---|
| 921110100 | CMI-1101 | Basic license (Visual software monitor) for 1 panel BSR-1001 or BSR-1002 or BSR-1004 |
| 921110200 | CMI-1102 | Extended license for second PC |
| 921110300 | CMI-1103 | Extended license for extra panel BSR-1001 or BSR-1002 or BSR-1004* |

***max number of supported panel: 16**

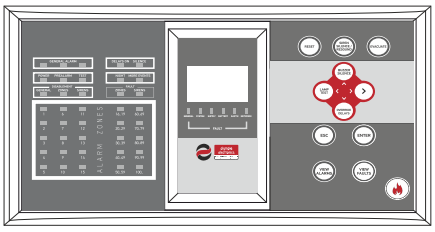


# Advantages of CMI

With Graphical Monitoring Software (CMI-1101) the user has the ability to

- Real time monitor of the fire alarm installation
- Multiple panels connection with one USB cable or more if it's necessary
- UI interface similar with BSR-100x family fire alarm panel
- Multiple panels monitoring in the same software
- Import floor plans in multiple file formats (png, jpg, bmp,tiff etc).
- Drag and drop icon placement provides easy device location on floor plans
- Alarms and faults indication in both panel and floor plan
- Color coded messages about the events (alarm, fault etc.) for direct and easy monitoring
- Special commands from software to panel (reset, evacuate, siren silence / resound etc.)
- Broadcast commands to all the connected panels at once
- Monitor the same fire alarm system from a second PC connected to the local Network

The CMI-1101 UI is identical to the real BSR-100X panel, making it easy and straight forward to use. The software follows the exact behavior of all the functions of the real panel, such as the LEDs, the display screen, the commands.

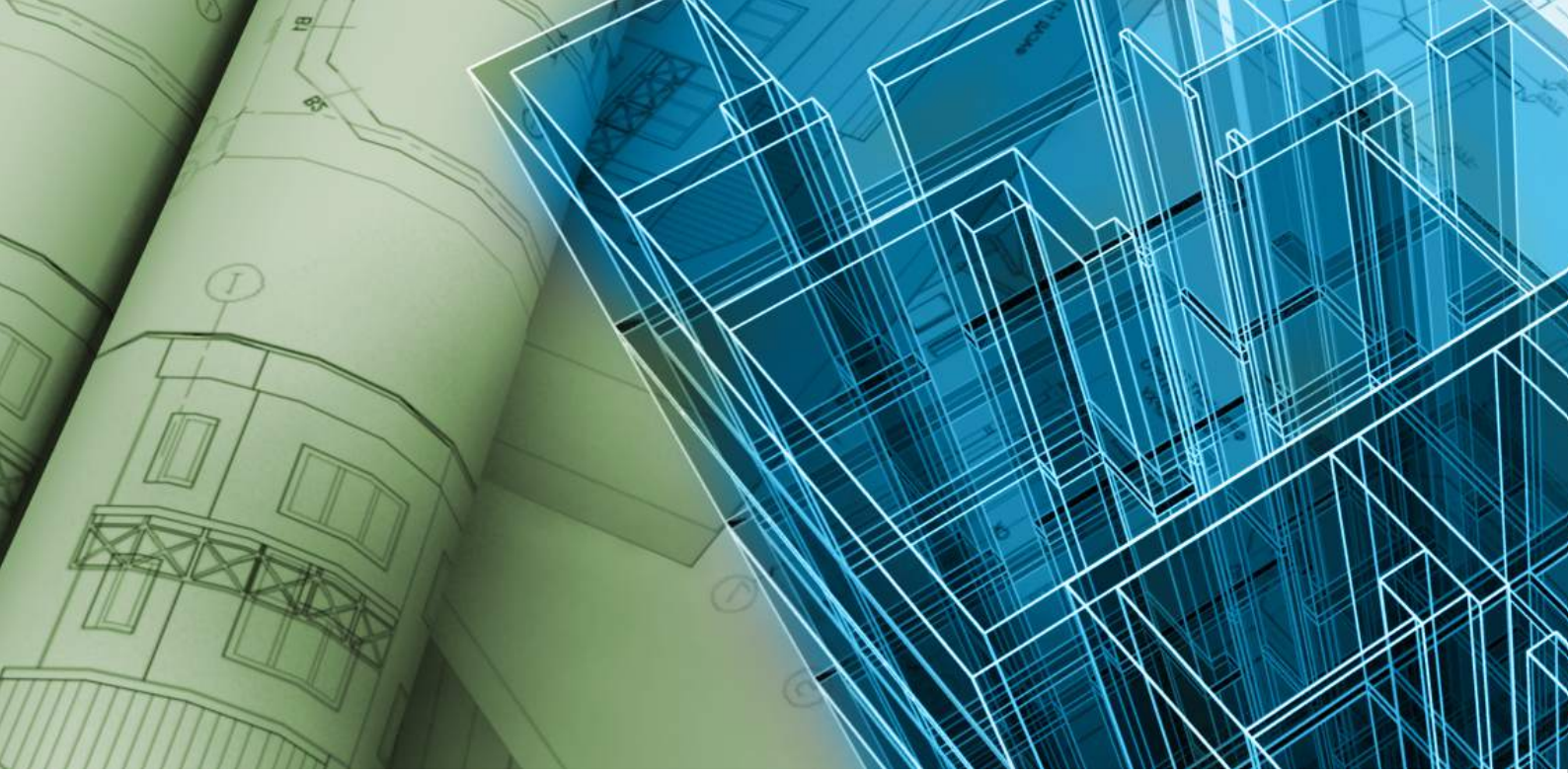


## Graphical Monitoring Software CMI-1101

User interface


Multiple monitor panel

Database

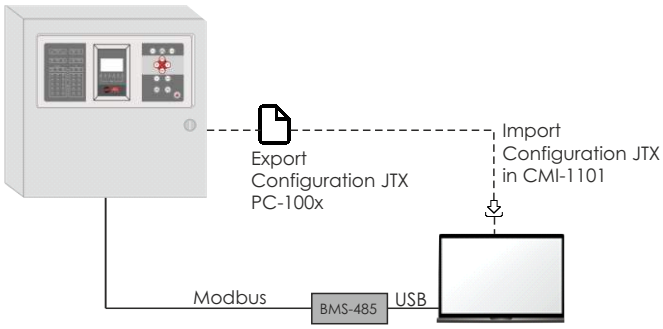


## Configuration

The configuration requires two steps:

- Connect the panel to the BMS-485 device and then to the PC's USB port
- Import the .jtx file of the specific fire alarm installation (exported from the PC-100X software) and configure the software

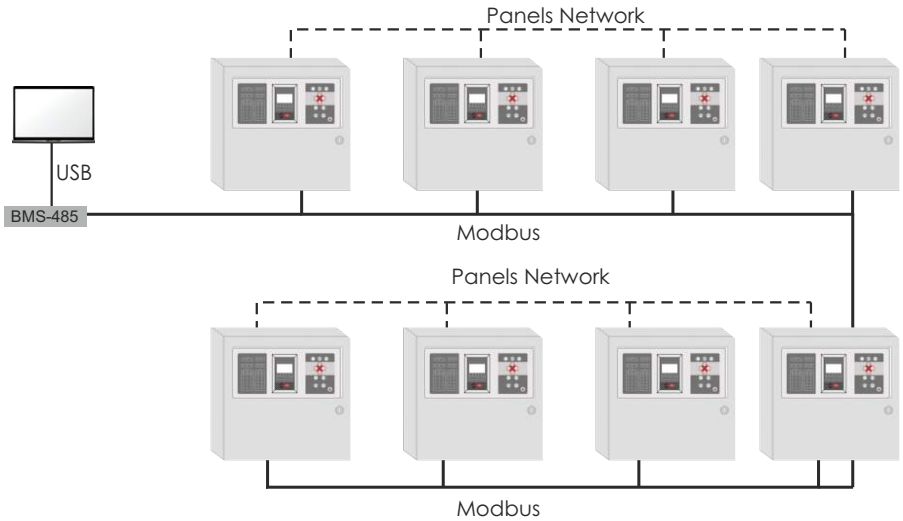
## Configuration diagram



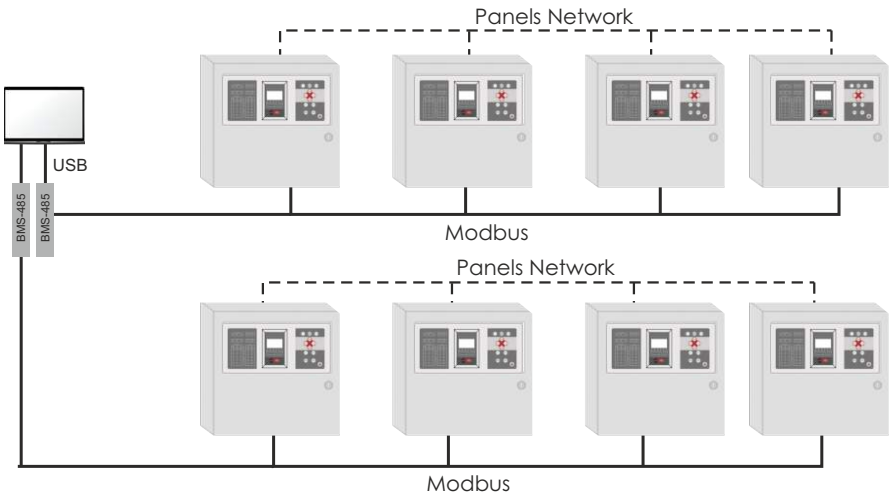

## Connectivity

There are two ways of connecting (up to 15) BSR-100X panels to CMI-1101 PC software:

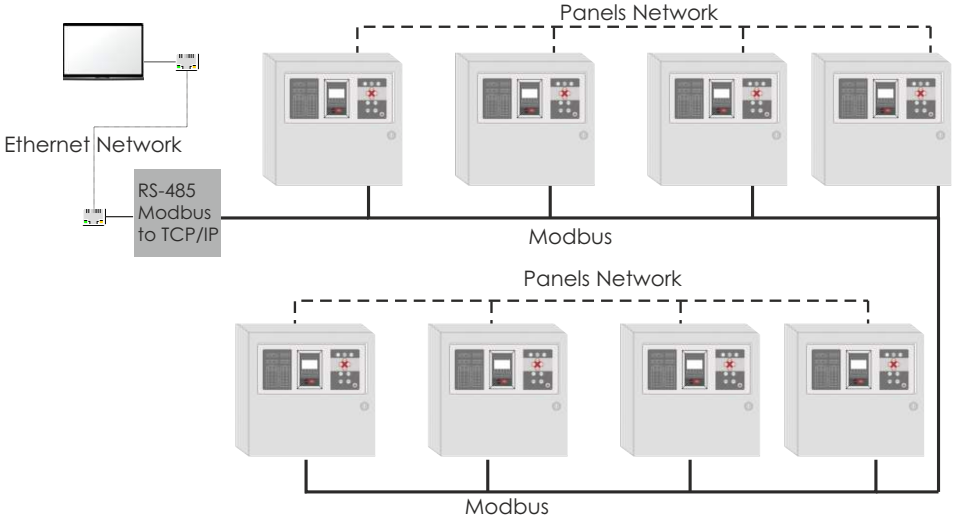
- Using one BMS-485 USB device, and all the panels connected in parallel



- Using more than one BMS-485 USB devices, and connect the panels in groups in parallel, each group having its own BMS-485 USB device




- The software also supports communication over Ethernet, with the use of a converting RS-485 to Ethernet (TCP/IP) gateway device.



# NEW VOICE EVACUATION SYSTEM

COMPACT 500


The Compact 500 offers a complete, integrated solution for a Voice Alarm Control and Indicating Equipment (VACIE) system, based on the boxed-amplifier concept.
Each Compact unit is fully self-contained, including the routing necessary to serve up to 6 single zones of100W RMS power each, with additional active back-up amplifiers. Iit also offers the additional capability for the amplifiers to be bridgeable, for a total of 3 zones of 200W RMS.
The Class D power amplifiers used in the Compact 500 offer high efficiency (80% rated power) operation at 100V RMS and a full spectrum bandwidth from 50 Hz to 20 kHz, as well as a low Signal to Noise (SNR) ratio, rated at less than 80dB. It is also able to be used as a Public Address (PA) system, as well by offering the capability to play Background Music (BGM) due to its full spectrum bandwidth of 50 Hz to 20kHz, low input-output latency (less than 10 ms) and advanced DSP features (HP/LP filter, multipoint parametric eq).
The system has a built-in power supply, EN 54-4 certified, rated to operate with voltages of 110-230 V AC, 50/60 Hz and it is compatible with 2x12V Pb batteries of up to 55 Ah, offering large autonomy.

The Compact 500 system is fully networkable, for up to 255 devices in a global network, and it is able to connect to Olympia-Electronics fire detection panels, offering the ability to fully cover large installations. The capability of the system to be utilized as a PA, makes it suitable for projects such as malls, airports and schools, leading to a simplified installation with increased safety for the occupants.

**LDB**
Loopdrive booster module
- 1 audio input
- 1 loop output
- 18-36V DC
- IP30

**4E-SW6**
Remote zone expander interface
- 2 audio in 100V AC 500W each
- 6 audio outputs 500W total,
- 18-36V DC
- IP30

**FIM-i**
Field isolator module
- IP30

**4E-LCF6/ENC**
Speaker 100V AC
- 6/3/1,5W
- 98,4dB
- IP21

**4E-LCS6/ENC**
Speaker 100V AC
- 10/6/3/1,5W
- 102,2dB
- IP21

**4E-FMT**
Fireman microphone
with 7" touchscreen
- wall or tabletop mounted

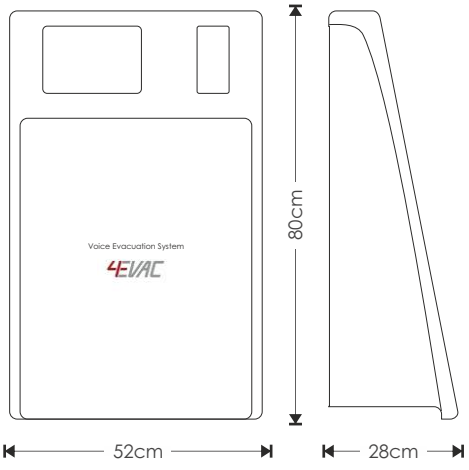
COMPACT 500

## Technical specifications

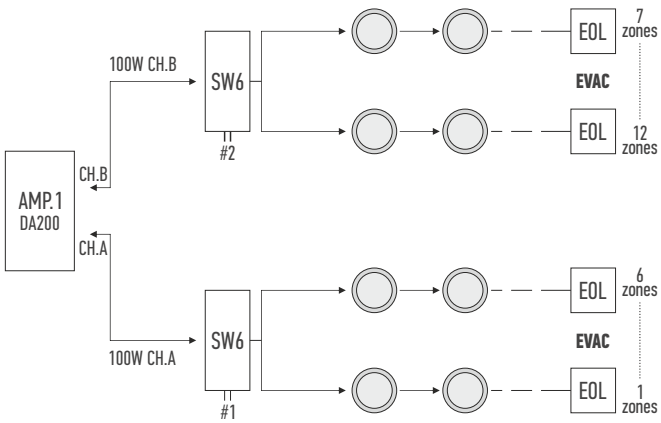
| | |
|---|---|
| **Number of zones** | max. 6 local zones |
| **Total output power** | 600W (pink-noise) |
| **Power amplifiers** | up to 6 x 100W modular Class D (2 channels per module) bridgeable up to 3 x 200W |
| **Standby power amplifiers** | 2 x 100 W /1 x 200 W Class D dedicated backup amplifiers |
| **Loudspeaker type** | V step-down transformer. |
| **Voice messages** | |
| Storage | max. 16 audio files x 1 minute, micro-SD card with content monitoring |
| Message player | max. 6 simultaneous local message playback |
| **Power supply equipment** | Built-in power supply system EN 54-4 certified. |
| AC supply | 110 – 230 V AC, 50/60 Hz |
| AC current consumption | max. 5.3 A @115 V AC / 2.65A @230 V AC |
| Inrush current | 40A @115 V AC, 20A @230 V AC |
| Power supply protection | Overload current limiting, over voltage shutdown, over temperature shutdown. |
| **Battery requirements** | |
| Type | Sealed, rechargeable lead-acid battery for stationary use |
| Capacity, charging time | 10-55 AH, <24 h @ 80% capacity |
| Rated voltage | 24 V DC (2 x 12 V) |
| Battery dimensions | 2 batteries, each of max. 230x138x207mm (LxWxH) |
| Battery weight | max. total 32.6 kg |

| | |
|---|---|
| **Inputs** | |
| 2 x BGM | 2 x independent balanced analog in, line-level mono, 22 kΩ input impedance |
| 6 x EVAC in, 1x SILENCE in, 1x RESET in | monitored logic inputs, 4.7 kΩ +10 kΩ EOL resistor |
| 8 x GPI | unmonitored logic inputs (pull-down, configurable active low/hi). |
| **Outputs** | |
| EVAC out, FAULT out | Potential-free relay output (configurable NO/NC) |
| 8 x GPO | Open collector output (configurable NO/NC) |
| 6 x Loudspeaker out | 6 x 100 V / 50 V, 100 W transformer output, 20 kHz AC monitoring with Loopdrive EOL unit. |
| **Audio** | |
| Frequency response | 50 Hz – 20 kHz (local BGM) 100 Hz – 12 kHz (message player, network audio compressed) |
| Input- output latency | < 10 ms (stand-alone system) |
| Digital audio format | 24 kHz sampling, ADPCM compressed |
| DSP features | HP/LP filter, multi-point parametric EQ delay. |
| **Mechanical** | |
| Dimensions (HxWxD) | 80 x 52 x 28 cm |
| Weight (without batteries) | 29 kg (6 channel version) |
| Housing material | Steel / ABS |
| IP rating | IP 30 |
| Mounting | Wall mounted box, wall bracket included. |

## Dimensions in cm




## Basic set up EVAC - 12 zones



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