fire systems limited

EURV-MRU 240V Mains Rated Relay Unit

100-8240V

DESCRIPTION

This device acts as an interface between a wired fire security system and third party ancillary devices installed on an household mains high voltage line.

COMPATIBILITY

This device is compatible only with fire security systems based on the Eurotech protocol.

SURFACE INSTALLATION - PROCEDURE

- 1. Fix the supplied wall plate in the location where it is planned to install the switch module. Fixing screws insertion locations of the wall plate are highlighted in picture 1.
- 2. Fix the switch module to the wall plate: use the 4 supplied fixing screws (picture 2).





BOX INSTALLATION - IMPORTANT NOTES

Install this device only in boxes with a UL945V rated inflammability class.

Use only cable glands with a UL945V-1 rated inflammability class.

BOX INSTALLATION - PROCEDURE

This procedure specifically applies to the BMB100 wall box obtainable from your supplier; nevertheless, the same principles can be applied to similar and suitable boxes present on the market.

- Fix the installation box in the location where it is planned to install the switch module. Fixing screws insertion locations for the box are highlighted in picture 3.
- 2. Fix the switch module into the installation box: use the 4 supplied fixing screws (picture 4).
- 3. After wiring is performed, close the box and seal it with the provided screws.



The **BMB100** wall box is designed with 12 cable entry knockout holes (6 M16/20 and 4 M25/32) distributed on its sides; these entries allow sealed, gland fitted cables to be introduced in the box itself.



- 3. Fit the cable glands into the "knocked out" entries of the box.
- 4. Feed the cables into the box, giving them sufficient length for a secure connection.
- 5. Fix the loop cables to their suitable terminal blocks on the switch module (check the following wiring paragraphs).
- 6. Fix the mains line cables to their suitable terminal blocks on the switch module (check the following wiring paragraphs).

WIRING - IMPORTANT NOTES

Near the switch module place a disconnector on the mains line; if the module is placed in the installation box, the disconnector must be placed outside the box, so as to be easily reachable. Disconnector's contacts distance between each other must be of at least 3mm.



Overcurrent protective devices (fuses, circuit breakers...) must be installed outside the installation box (if used).

Refer to and follow national codes of wiring and cabling practice and other internationally recognized standards.

Apply scrupulously the instructions given in this manual, especially the safety warning notes and the wiring procedures.

Disconnect the household mains line from its power supply source, from the beginning to the end of the installation / maintenance phases.

Make sure that the device's box, after installation / maintenance, remains sealed, preserving its original IP rating.

Mains line's wires are intended to be connected only to their suitable terminal blocks.

Connecting these wires to other device's terminal blocks will damage irreparably the device and be an hazard to final users.

Do not exceed maximum allowed loads on the household mains line.

Only competent and authorized personnel is allowed to access the device's box.

WIRING - ANALOGUE LOOP





SAFETY COVER

For safety reasons, the household mains line terminal blocks are equipped with a detachable cover

If not working on these terminal blocks for installation or maintenance reasons, <u>ALWAYS KEEP</u> <u>THE SAFETY COVER INSTALLED IN ITS PLACE !!!</u>



TESTING

- 1. Generate an alarm on the fire security system.
- 2. If the device operates correctly:
 - a. The control panel activates (or doesn't) the module's LED indicator (picture 9), as per control panel setup.
 - b. Module's relay switches over from Normally Closed (NC) to Normally Open (NO), thus handling the output as per fire security system design.



TECHNICAL SPECIFICATIONS		
Analogue loop's voltage range	From 18 V (min) to 40 V (max)	
Activated current draw from analogue loop	12.5 mA	At 24 V
Operating temperature range	From -30 °C (min) to +70 °C (max)	
Humidity	95% RH max (no condensation)	
IP rating (surface mounting)	21C	
IP rating (BMB100 box mounting)	65	
MAINS LINE LOAD SPECIFICATIONS		
Allowed load types	Resistive / inductive	
Maximum allowed load (RESISTIVE type)	5 A at 250 VAC 5 A at 30 VDC	

1.5 A at 250 VAC

1.5 A at 30 VDC

WARNINGS AND LIMITATIONS

Maximum allowed load (INDUCTIVE type)

Power factor ($\cos \Phi$) = 0.4

L/R time constant = 7 ms

Our devices use high quality electronic components and plastic materials that are highly resistant to environmental deterioration. However, after 10 years of continuous operation, it is advisable to replace the devices in order to minimize the risk of reduced performance caused by external factors. Ensure that this device is only used with compatible control panels. Detection systems must be checked, serviced and maintained on a regular basis to confirm correct operation. Smoke sensors may respond differently to various kinds of smoke particles, thus application advice should be sought for special risks. Sensors cannot respond correctly if barriers exist between them and the fire location and may be affected by special environmental conditions. Refer to and follow national codes of practice and other internationally recognized fire engineering standards. Appropriate risk assessment should be carried out initially to determine correct design criteria and updated periodically.

WARRANTY

All devices are supplied with the benefit of a limited 3 year warranty relating to faulty materials or manufacturing defects, effective from the production date indicated on each product. This warranty is invalidated by mechanical or electrical damage caused in the field by incorrect handling or usage. Product must be returned via your authorized supplier for repair or replacement together with full information on any problem identified. Full details on our warranty and product's returns policy can be obtained upon request.