eurotech®
fire systems limited

100-8240V

EURV-MRU 240V Mains Line Switch Module

GENERAL DESCRIPTION

The **100-8240V** is a device that switches on or off third party ancillary devices that are installed on an household mains high voltage line; this device's switch is controlled indirectly by the fire security system's control panel.

The **100-8240V** can be used in a hard wired or in a wireless application context.

REQUIREMENTS AND COMPATIBILITY

The **100-8240V** must be used only in fire security systems based on the Argus Security's wired and / or wireless protocol.

In a wired application the **100-8240V** requires a **100-2034V** relay output mini-module.

In a wireless application, the **100-8240V** requires a **SGMCB-EOLM** interface module and a **EUW-BOM-01** wireless battery powered output module.

IMPORTANT NOTES ON WIRING

Place a disconnector on the mains line; the disconnector must be placed outside the installation 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.

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 installation 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 the wrong terminal blocks will damage irreparably the 100-8240V and be an hazard to final users.

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

Only competent and authorized personnel are allowed to access the installation box.

IMPORTANT NOTES ON INSTALLATION

100-8240V must always be installed into a suitable installation box.

You can choose between the UA-BBOE-WFR-01 wall box model, obtainable from your system supplier, or other suitable boxes purchasable on the market. In any case:

- use only external boxes with a UL94-5V flammability class and

- cable glands must have a flammability class UL94V-1 or better.

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 (**100-8240V** only)	21C
IP rating (**UA-BBOE-WFR-01** installation box)	65

Supply shall be provided by Limited Power source (LPS)

MAINS LINE LOAD SPECIFICATIONS

Allowed load types	Resistive / inductive
Maximum allowed load (RESISTIVE type)	**5 A at 250 VAC** **5 A at 30 VDC**
Maximum allowed load (INDUCTIVE type) **Power factor (cos Φ) = 0.4** **L/R time constant = 7 ms**	**1.5 A at 250 VAC** **1.5 A at 30 VDC**

INSTALLATION

1. Fix the installation box in the planned location. If a **UA-BBOE-WFR-01** is used, fixing screws insertion locations are highliged in picture 1.

2a. Wired application: install the **100-2034V** under the **100-8240V** module; be sure that the connectors under the **100-8240V** enter properly into the **100-2034V** female connectors (extractable terminal blocks must be previously removed).

2b. Wireless application: install the **SGMCB-EOLM** under the **100-8240V** module; be sure that the connectors under the **100-8240V** enter properly into the **SGMCB-EOLM** female connectors.

3a. If a **UA-BBOE-WFR-01** is used, fix the **100-8240V** directly into the box: use the 4 supplied fixing screws (picture 2).

3b. If not using a **UA-BBOE-WFR-01**, fix the adaptor plate into the box; fixing screws insertion locations of the plate are highlighted in picture 4.
Fix the **100-8240V** to the plate: use the 4 supplied fixing screws (picture 5).

4. Fit the cable glands into the entries of the box. **UA-BBOE-WFR-01** is already equipped with knock-out holes for this purpose (picture 3).

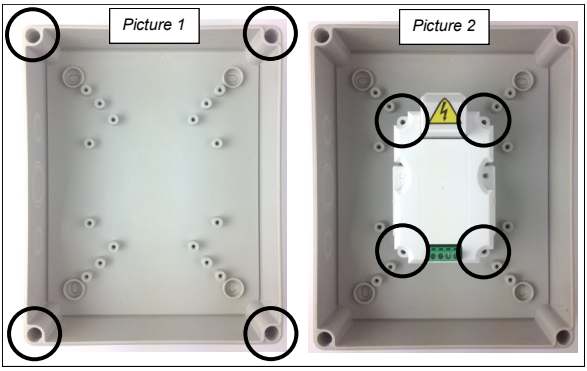
5. Feed the cables into the box, giving them sufficient length for a secure connection.

6. Fix the loop cables to their suitable terminal blocks on the **100-8240V** (**check the following wiring paragraphs**).

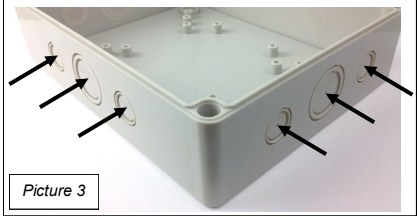
7. Fix the mains line cables to their suitable terminal blocks on the **100-8240V** (**check the following wiring paragraphs**).

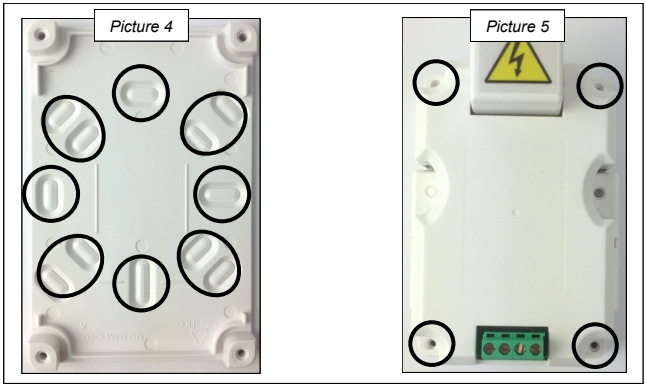
8. After wiring is performed, close the box and seal it with the provided screws.

9. Test the **100-8240V**.



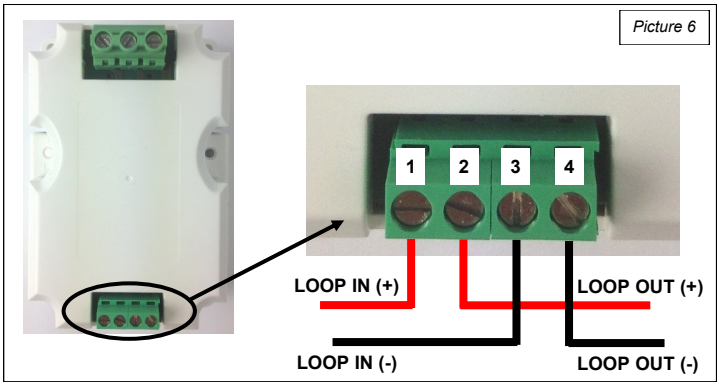
The **UA-BBOE-WFR-01** wall box is designed with 12 cable entry knockout holes (6 M16/20 and 4 M25/32) distributed on its sides; these entries allow sealed, gland fitted cables to be introduced in the box itself.





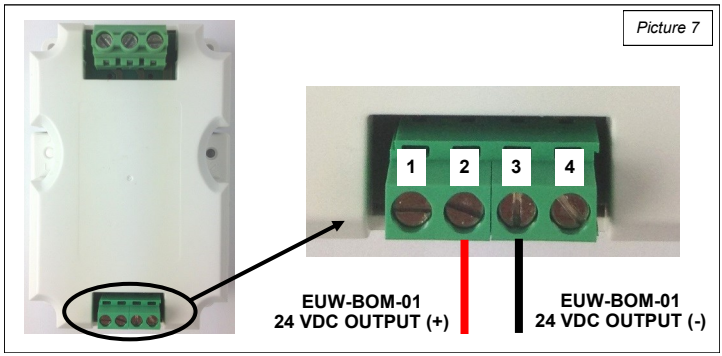
ANALOGUE LOOP WIRING

Picture 6



EUW-BOM-01 WIRING

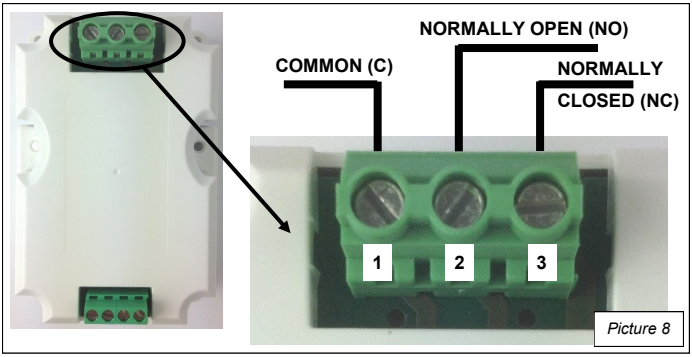
Picture 7



CHECK INTERFACE DEVICE'S DOCUMENTATION

It is warmly suggested to read the installation manuals for the **100-2034V**, **SGMCB-EOLM** and **EUW-BOM-01** interface modules to have a complete vital knowledge of installation know-how for these devices.

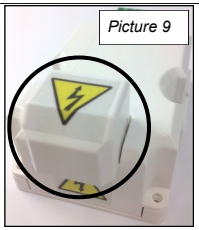
HOUSEHOLD MAINS LINE WIRING



Picture 8

ALWAYS INSTALL THE 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, **ALWAYS KEEP THE SAFETY COVER INSTALLED IN ITS PLACE !!!**


Picture 9

TESTING

Generate an alarm on the fire security system and check that the **100-8240V**'s relay switches over from Normally Closed (NC) to Normally Open (NO), thus handling the output as per fire security system design.
In an hard wired application the control panel activates the underlying **100-2034V**'s output LED indicator (if enabled by the control panel).

WARNINGS AND LIMITATIONS

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 years 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.

Eurotech Fire Systems Ltd - 19/20 Stratfield Park - Elettra Avenue - Waterlooville Hampshire - PO7 7XN - United Kingdom

100-8240V

For use in compatible fire detection and alarm systems