

# EC-EX10/O

## Eclipse 10 Output Expander



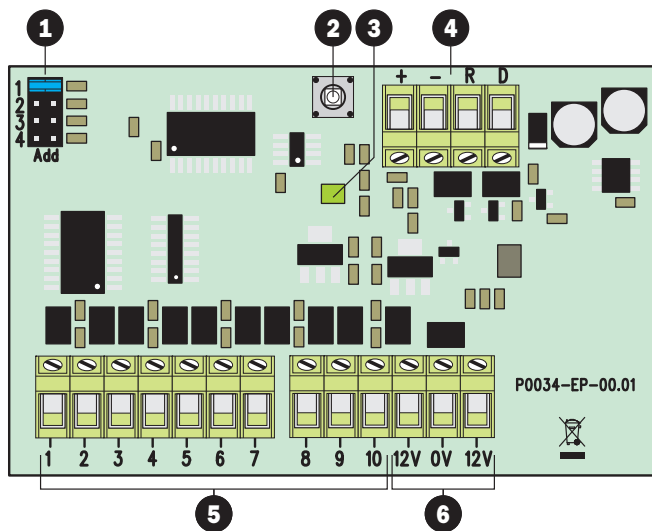
## Installation Instructions

### 1. Introduction

The EC-EX10/O is supplied in a stylish plastic enclosure and is connected to the 4-wire control panel network to provide an additional 10 programmable outputs.

### 2. PCB Layout & Connections

The figure below shows the PCB layout for the EC-EX10/O:



#### 1. Address Selector

Each output expander must be assigned a different address using the address selector. Move the jumper to the required position 1, 2, 3 or 4.

#### 2. Lid Tamper

The lid tamper detection switch. The tamper protection can be disabled at the control panel, please refer to the control panel installation manual.

#### 3. Status Indicator

This LED normally indicates the power status of the system and is lit green when the power is healthy. The indicator will also flash the expander address when the system is in engineer's mode.

#### 4. Network

These four connections must be connected to the control panel network, or the "Network Out" of another Zone & Output expander.

#### 5. Programmable Outputs

These terminals provide programmable switched to 0V outputs. OP1 to OP8 are low current 100mA and suitable for driving light load like relays and LED's. OP9 and OP10 are high current 1Amp and can used for driving heavier loads.



An additional power supply maybe required in order to supply adequate power to drive the devices connected to the Programmable Outputs.

#### 6. Auxiliary 12V

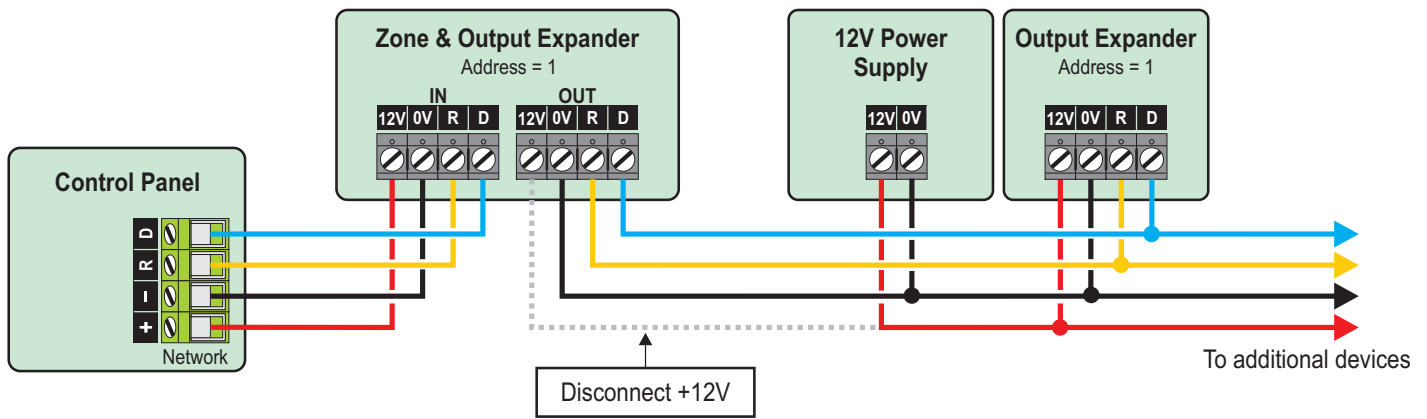
These terminals provide auxiliary power for powering devices connected to the outputs.

## 3. Installation

Please follow the installation sequence below:

1. Remove the screw cap by using a large flat blade screw driver, then undo the cover screw using a suitable pozi-drive screwdriver and remove the cover.
2. Position the expander in the require position and mark the four securing holes in each corner.
3. Drill and plug the holes then secure the expander with suitable fixings.
4. Route the network and output load cables into the housing through the cable entries provided.
5. Connect the 0V of output loads to the Programmable Outputs and +12V to the Auxiliary +12V.
6. Connect the network cable to the Network terminals.
7. Set the Address Selector to the required position.
8. Apply power to system and confirm the new expander is being recognised by the control panel. See "Confirm Devices" in the control panel installation manual.
9. Test the operation of the outputs then finally replace cover.

## 4. Network Wiring



Remote keypads and expanders are all connected to the same network terminals located at the bottom left hand corner of the control panel and may be connected serially (daisy chain), in parallel (star) or any combination of the two.

### Network Voltage Drop

When devices are on long cable runs or the current being drawn from the network is high, the voltage at the expander or keypad will drop due to the impedance of the cable. There are several ways to reduce the level of voltage drop in a network:

- ▶ Use thicker lower resistance cable. Standard 7/0.2 alarm cable has a resistance of  $8\Omega$  per 100m
- ▶ Double up on the power connections – this will require using a 6 or 8-core cable rather than a 4-core cable
- ▶ Install a power supply to power the device locally

### Installing a Power Supply

When a power supply is installed, the 0V connections on the power supply must be connected through to 0V on the control panel and the +12V connection between the control panel or previous device must be disconnected, see figure above.

## 5. Specifications

### Electrical

Voltage:	10 - 16Vdc.
Current:	30mA
Outputs:	OP1-8: 100mA; OP9-10: 1Amp
Auxiliary 12V:	Protected by 1Amp electronic fuse (PTC)

### Environmental

Operating Temp.:	-25 °C to +55 °C (-13 °F to +131 °F).
Storage Temp.:	-25 °C to +60 °C (-13 °F to +140 °F).
Max. Humidity:	95% non-condensing.
EMC:	Residential, commercial and light industrial.



Do not throw away the product with the normal household waste at the end of its life, but hand it in at an official collection point for recycling.

### Physical

Dimensions:	136.0mm x 174.0mm x 35.0mm.
Packed Weight:	250g.

## 6. Standards

### Safety

Conforms to European Union (EU) Low Voltage Directive (LVD) 2006/95/EC.

### EMC

Conforms to European Union (EU) Electro-Magnetic Compatibility (EMC) Directive 2004/108/EC.

### Security

Conforms to EN 50131-1 and EN 50131-3 Grade 2, Environmental Class IV.



The CE mark indicates that the *EC-EX10/O* complies with the European requirements for safety, health, environment and customer protection.

## 7. Warranty

Zeta Alarm Systems by GLT Exports Ltd products are carefully designed to provide reliable problem-free operation. Product quality is carefully controlled during all manufacturing processes. The *EC-EX10/O* is covered against defects in material or faulty workmanship for a period of 2 years from the date of purchase. Due to our policy of continuous product improvement, Zeta Alarm Systems by GLT Exports Ltd reserves the right to change specification without prior notice.

As the *EC-EX10/O* is not a complete intruder alarm systems, but only part of it, Zeta Alarm Systems by GLT Exports Ltd does not accept responsibility or liability for any damages whatsoever based on any claim that the unit failed to function correctly.



### Technical Support

Email: [support@zetaalarmsystems.com](mailto:support@zetaalarmsystems.com)