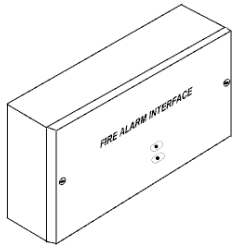




## **General Description**

The MAGDUO Interface module provides an interface between ancillary devices and the zone. It can be configured as an input allowing for reporting from other systems / devices and/or as an output to control external systems. This device may be installed on the same zone as the FlexiPoint detector/sounder and associated MAGDUO devices.



## **Before Installation**

The MAGDUO Interface module must be installed in compliance with the control panel installation manual. The installation must also meet the requirements of any local authority and BS5839 Pt1 : 2017.

## **Positioning**

The module should be mounted securely and care should be taken to ensure the device is accessible for future maintenance.

## **Device Installation**

All wiring must be installed in compliance with the recommendations laid out by BS5839 Pt1 : 2017 as well as any special recommendations documented in the control panel installation manual. The cabling used should be of a 2-core 1.5mm<sup>2</sup> screened, fire resistant type (e.g. MICC or FP200 equivalent), and is to be wired in the form of a screened 2-core radial circuit (with no spurs) from the control panel, terminating at the last ("End of Line") device. Note that ALL connections, including inputs, should be made via screened cable.

Fix the back box in a suitable position using at least two of the screw holes provided, remembering to allow enough space for the correct termination of the appropriate fire resistant cable.

Care should be taken when terminating devices to ensure all cables are correctly sleeved and connections are secure. Improper connections will prevent a system from responding properly in the event of a fire.

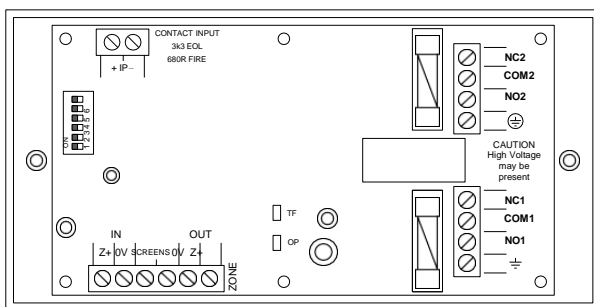
## **Connections**

In order to carry out high voltage testing and resistance measurements, temporarily connect the incoming and outgoing zone cables to each other using a 3 way connector block. Once all testing has been carried out on the cabling, and 'continuity & integrity' has been proven, the MAGDUO Interface may be connected and assembled.

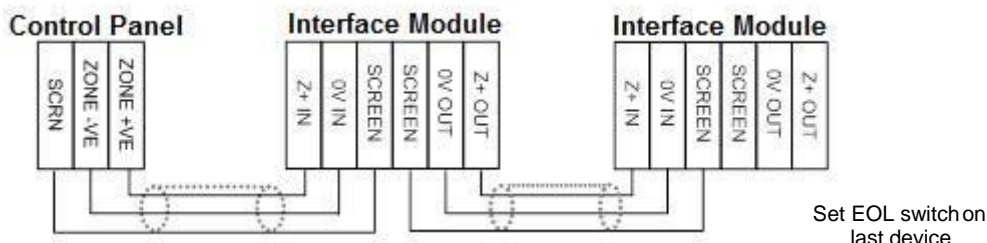
Please remember that all high voltage testing must be carried out before the installation of the MAGDUO Interface electronics otherwise the electronics will be damaged.

**Remember that the device at the end of the line must have its EOL signal activated using the relevant EOL switch. Do not use a resistor or capacitor (or another manufacturer's End of Line device) as the end of line, as this may prevent correct operation of the zone.**

### Module Layout



### Zone Connections



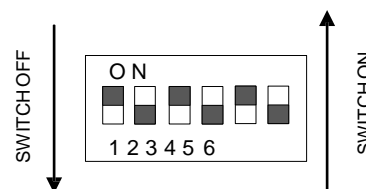
The MAGDUO Interface can be mixed on the same zone as other types of MAGDUO device. The above diagram shows how to make the zone positive, zone negative and screen connections between the control panel and the MAGDUO Interfaces. Refer to the instruction leaflets supplied with other MAGDUO devices for their equivalent wiring/terminal labelling details.

Please note that the "SCREEN" terminals on the MAGDUO Interface should only be connected to the zone cable screen and NOT to the building earth or the back box earth terminal. The cable screen is connected to earth at the panel end only, via the zone "SCRN" terminal (or EARTH terminal on the MAGDUO panel). It is important to maintain the screen continuity in order to protect against data corruption from interference.

### DIP Switch Settings

The last device on the circuit must have the EOL signal enabled (switch number 1 in the 'ON' position). It may be altered whilst the module is still powered or the system may be powered down completely.

The unit may be configured as an input or an output, or both. Switches 2-6 are used to set the operation of the onboard input and output.



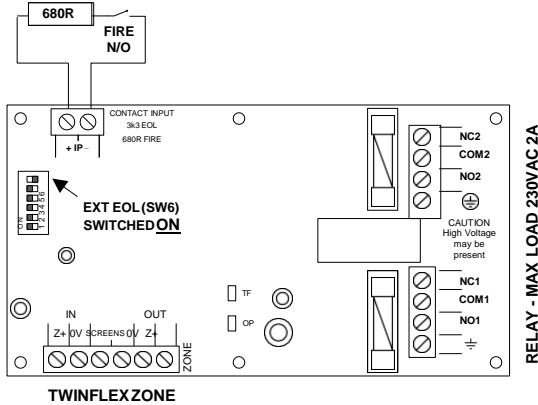
SWITCH NO.	FUNCTION	DESCRIPTION	OFF	ON
1	END OF LINE	Zone End of Line signal	Disabled	Enabled
2	ALARM-MODE	Device Alarm to generate when input activated	Detector	Callpoint
3	I/P MODE	Not to be used	Always leave in this position	N/A
4	RESET MODE	Panel Function required to reset Output	System Reset	Sounders Off
5	OUTPUT MODE		Normal	Disabled if INPUT Active

6	EXTERNAL EOL	Provides EOL resistor to external device	Disabled	Enabled
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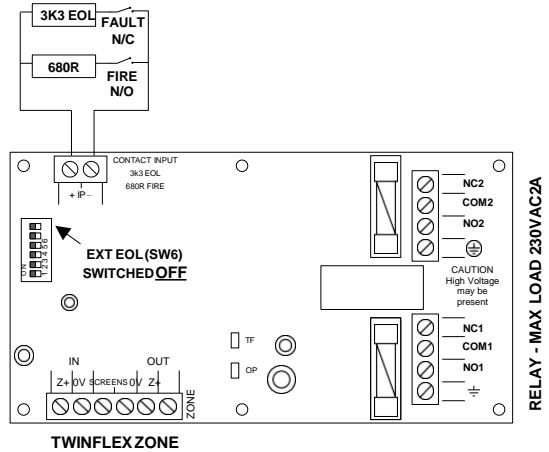
**Input / Output Wiring**

The physical connections are shown below.

**Input without Fault Monitoring**



**Input with Fault Monitoring**



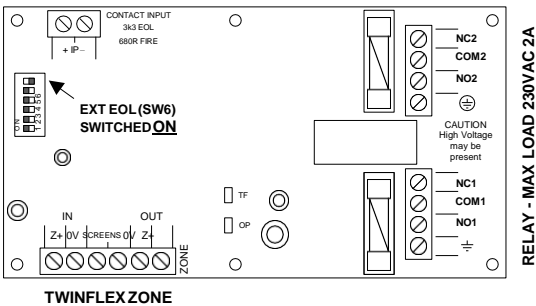
For use as an unmonitored input, connect to input as shown above, remembering to set the External EOL switch to ON.

For use as a fault monitored input, connect to input as shown above, remembering to set the External EOL switch to OFF.

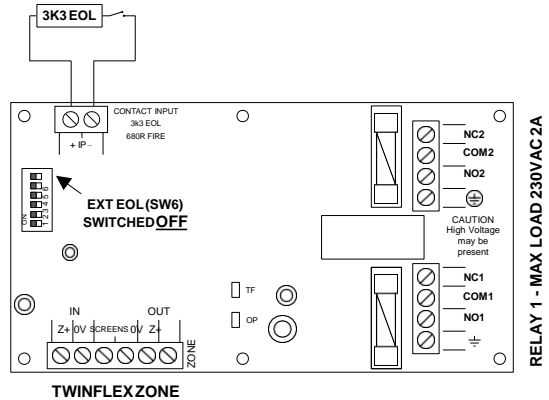
Use a volt free fire contact to make the circuit in order to generate a fire condition.

Use a volt free fire contact to make the circuit in order to generate a fire condition and a volt free fault contact to break the circuit in order to generate a fault condition.

**Output Relay without Fault Monitoring**



**Output Relay with Fault Monitoring**



For use as a simple 'change-over' relay output, connect to relay contacts as above, remembering to set the External EOL switch to ON.

For use as a 'change-over' relay output with fault monitoring, connect to relay contacts and input as shown above, remembering to set the External EOL switch to OFF, and to use a volt free fault contact to break the EOL circuit in order to generate a fault condition.

Either mains or low voltage equipment may be connected but not both ie. it is not permissible to use one set of contacts for mains and the other for low voltage. If both low voltage and mains switching is required, a second I/O unit must be used such that one unit is dedicated for mains and the other for low voltage.

**Any equipment connected to the relay outputs must not respond to a momentary change of the relay contacts when exposed to mechanical shock or impact conditions.**

**Important notes when connecting mains to the Interface Module Outputs:**

- When connecting mains to the device, a ready accessible disconnect device (eg. a 5A fused spur / switch) must be provided external to the device to enable isolation of the Interface unit.
- The two sets of contact terminals (NC1, NO1, COM1, EARTH and NC2, NO2, COM2, EARTH) may be used to switch Live and Neutral mains voltages (it is recommended that all 230V AC mains voltage connections should switch both Live and Neutral). CAUTION: with double pole/neutral fusing, if one fuse ruptures, the other side of the circuit will still be live.
- The installation of these connections should only be carried out by suitably qualified persons whilst the mains supply is fully isolated.
- The mains cable and low voltage cables (zone and input if applicable) must be kept separate. The low voltage cable must be secured (eg. with cable ties) to avoid bridging to the mains supply if it becomes loose.

**Technical Data**

Dimensions:	Overall .....146mm x 87mm x 41mm Back box .....146mm x 87mm x 32mm
Operating temperature:	
Voltage Ranges:	DC Output from Mains Powered Panel ..... 25.5 to 35V DC DC Output from Battery Powered Panel ..... 20 to 26V DC
Operating Current (Typical):	Quiescent ..... 0.207 mA End of line ON if applicable ..... 0.080 mA <i>(in addition to Quiescent)</i> Active ..... 22.715 mA
LED Indication:	Output Active LED (Red) ..... On continuously when output active Status - EOL/Input Active LED (Red) ..... On continuously when input active ..... Flash once every 20 secs for normal ..... Flash once every 5 secs for EOL
Max Cable Length to Input:	..... 3 Metres
Contact Rating:	DPCO Relay Max load ..... 30V DC = 2A . ..... 250V AC 50Hz/60Hz 2A ..... Max 3A Surge
Fuses:	Fuse 1, Fuse 2 .....3.15A Antisurge 20mm Ceramic ..... 250V AC (eg. Bussman S505-3.15A)
Loading Units:	..... Max Loading Units per Zone ..... 160 DLU Interface Module ..... 23 DLU Flammability: ..... UL94-V2 ..... IP 30*
IP Rating:	..... IP 30*
Part Code:	..... MAGDUOIOR


\* Not EN54-18 Tested.

**Technical Support**

Due to the complexity and inherent importance of a life risk type system, training on this equipment is essential, and commissioning should only be carried out by competent persons.

ESP's policy is one of continual improvement and the right to change a specification at any time without notice is reserved. Whilst every care has been taken to ensure that the contents of this document are correct at time of publication, ESP shall be under no liability whatsoever in respect of such contents. E&OE.

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Elite Security Products LTD Unit 7 Target Park, Shawbank Road, Lakeside, Redditch, B98 8YN England 11 DoP-MAGDUOIOR-01 <b>EN54-18: 2005</b>	
<b>Intended for use in the fire detection and fire alarm          Systems in and around buildings</b>	
<b>Essential characteristics</b>	<b>Performance</b>
Nominal activation conditions/Sensitivity, Response delay (response time) and performance under fire conditions	Pass
Operational reliability	Pass
Tolerance to supply voltage	Pass
Durability of operational reliability and response delay, Temperature resistance	Pass
Durability of operational reliability, Vibration resistance	Pass
Durability of operational reliability, Humidity resistance	Pass
Durability of operational reliability, Corrosion resistance	Pass
Durability of operational reliability, Electrical stability	Pass
Response delay (response time)	Pass