

ZIOU/230 - MAINS IO INSTRUCTION MANUAL

Description

The Mains IO Modules are fully monitored loop powered devices which permit the interfacing of third party equipment with the Fire Alarm Control panel using normally open dry contact connections.

The connection to the input is monitored for fault (open or short circuit) and Alarm conditions.



The interface is used to monitor the contacts of an external system which must be interfaced to the Fire Alarm System, for example a Flow Switch in a sprinkler system to indicate if the sprinklers have been activated or extinguishant level monitoring in Gas Extinguishing systems, etc.

Module is provided with a loop short-circuit isolator and with a voltage free single pole change over mains rated output. The output relay is always powered directly from the detection loop. It is not required to use an external 24V DC power supply. Relay operation is confirmed by an on-board red LED

An 8 way D.I.L switch is provided to configure the module's address. This value can be set in the range 1 to 125.

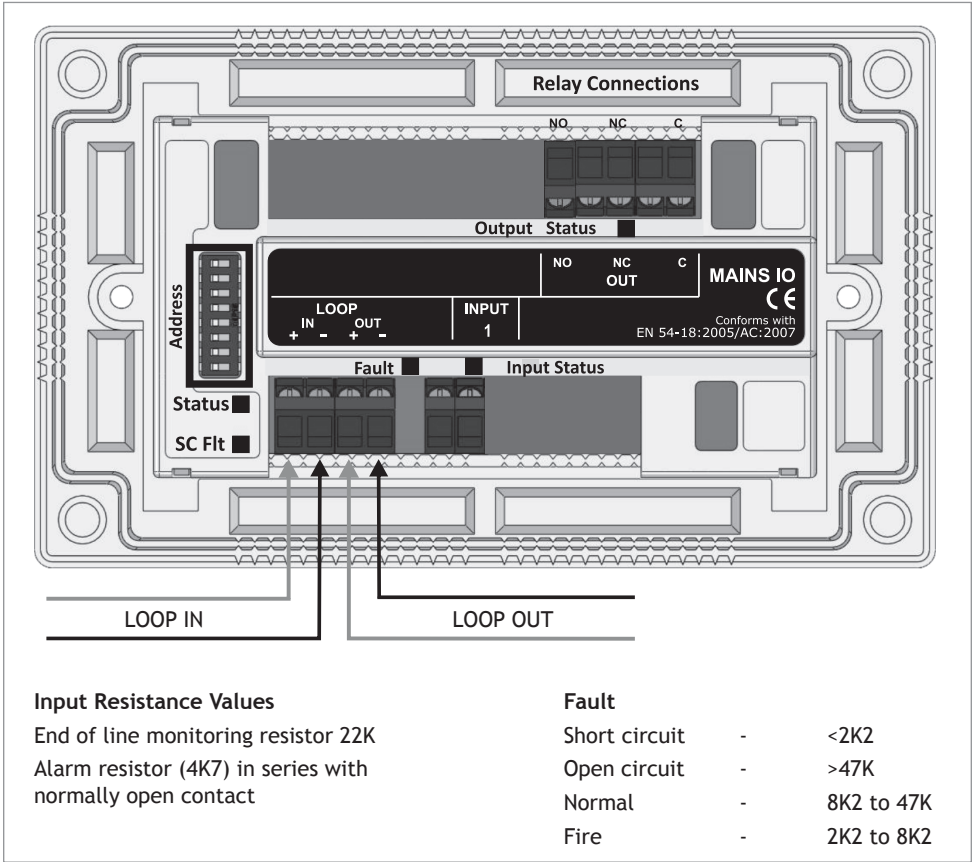
The following programmable functions are available: Input Activation Mode, Delayed Input Alarm Activation, Output Delayed Activation.

Features

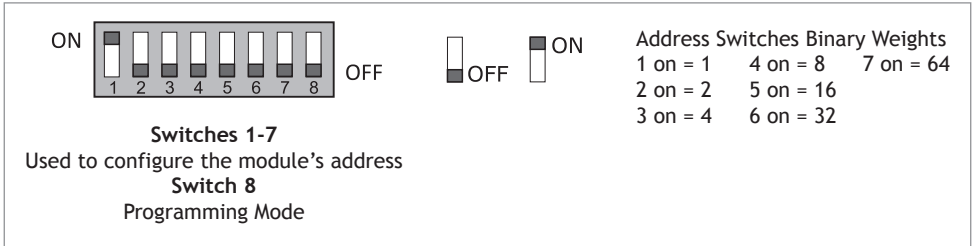
- ✓ Fast Activation Response
- ✓ Loop Powered
- ✓ Five Status LEDs provided
- ✓ Low Power Consumption
- ✓ Module features an integral short-circuit loop isolator
- ✓ Single mains rated relay contact

Connections

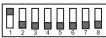

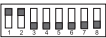






















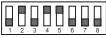
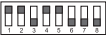















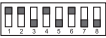












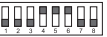

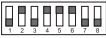
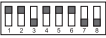






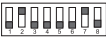
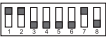


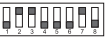
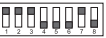



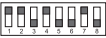






























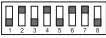
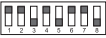


















Device is polarized



D.I.L Switches Configuration



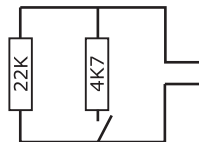
Address Settings

| | | | | | | | |
|---|---|---|---|---|---|---|--|
|  |  |  |  |  |  |  |  |
| 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 |
|  |  |  |  |  |  |  |  |
| 09 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
|  |  |  |  |  |  |  |  |
| 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 |
|  |  |  |  |  |  |  |  |
| 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 |
|  |  |  |  |  |  |  |  |
| 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 |
|  |  |  |  |  |  |  |  |
| 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 |
|  |  |  |  |  |  |  |  |
| 49 | 50 | 51 | 52 | 53 | 54 | 55 | 56 |
|  |  |  |  |  |  |  |  |
| 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64 |
|  |  |  |  |  |  |  |  |
| 65 | 66 | 67 | 68 | 69 | 70 | 71 | 72 |
|  |  |  |  |  |  |  |  |
| 73 | 74 | 75 | 76 | 77 | 78 | 79 | 80 |
|  |  |  |  |  |  |  |  |
| 81 | 82 | 83 | 84 | 85 | 86 | 87 | 88 |
|  |  |  |  |  |  |  |  |
| 89 | 90 | 91 | 92 | 93 | 94 | 95 | 96 |
|  |  |  |  |  |  |  |  |
| 97 | 98 | 99 | 100 | 101 | 102 | 103 | 104 |
|  |  |  |  |  |  |  |  |
| 105 | 106 | 107 | 108 | 109 | 110 | 111 | 112 |
|  |  |  |  |  |  |  |  |
| 113 | 114 | 115 | 116 | 117 | 118 | 119 | 120 |
|  |  |  |  |  | | | |
| 121 | 122 | 123 | 124 | 125 | | | |

Connections

Input

Monitored for Open and Short Circuit - Can be driven by conventional panel's zone repeater outputs. Each I/P should be fitted with 22 K Ohm end-of-line resistor. Fire condition set with 4.7 K Ohm resistor in parallel with e.o.l resistor.



Output

The mains rated relay output provided is a latching relay. In order to reset it apply reset to the panel or alternatively remove power to the panel and re-apply. After a few seconds the relay will revert to it's default position.

Reporting Details

In order to indicate the status of the module's working condition, the following LEDs are provided:

Status: This will flash GREEN every time the address associated with the module is polled by the addressable panel.

Input Status: An I/P status RED LED is provided for the input. This RED LED will be illuminated continuously whenever there is a FIRE condition present at the input terminals. The analogue value reported by the module in this state is 64.

Output Status: An O/P status RED LED is provided for the output. This RED LED will be illuminated continuously whenever the output relay is activated.

Fault: This YELLOW LED will be activated whenever there is either an open or short circuit fault on that particular input. If there is an open or short circuit condition, the analogue value reported to the addressable panel is 4.

SC Fault: This YELLOW LED will be ON when there is a short circuit in the loop.

Technical Specifications

| MODEL | ZIOU/230 |
|------------------------------------|--|
| Part No | 48-125 |
| Description | Mains Switching I/O Unit - Standard Protocol |
| Supply Voltage | Loop Powered - 17V to 30V DC |
| Loop Current - Quiescent (I_Q) | 1.3 mA |
| Loop Current - Alarm | 2.9 mA |
| Loop Current - Fault | 2.9 mA (SC) - 2.6 mA (OC) |
| Loop Current - Output Active | 2.8 mA |
| Output Relay Contact Rating | 8A 250 VAC/30V DC |
| Max. Cable Size | 2.5 mm ² |
| Case Material | ABS |
| Max. Humidity | 95% RH Non-Condensing |
| Operating Temperature | -10°C to 50°C |
| Dimensions | 150 (W) x 90 (L) x 32 (H) |
| Weight | 210g inc. packaging |

Installation Manual Modification History

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| Issue | Date | Changes |
|-------|------------|--|
| 1.0 | 06/2013 | Initial Release |
| 1.1 | 29/07/2013 | Format changed to Zeta |
| 1.2 | 04/11/2013 | MKII version removed from table on p.4 |