

## I/O 24 Opto Input Board

The I/O 24 Opto Input Board shown below in diagram 1 is a very useful accessory which allows the user to connect signals from 3 to 24V AC or DC to the I/O ports of either the USB I/O24, or the Ether I/O24 via 8 optically isolated input channels.

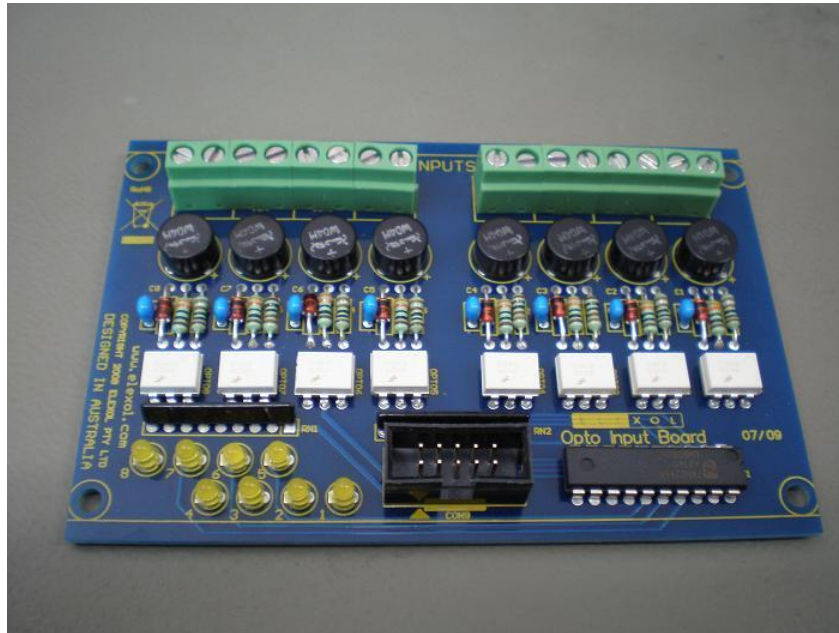


Diagram 1

Each of the input channels is electrically isolated from all other channels and the I/O24 module preventing signals from other channels interfering with each other and damage to the I/O24 module. The input channels also have LED's to indicate when a signal is present on the channel.

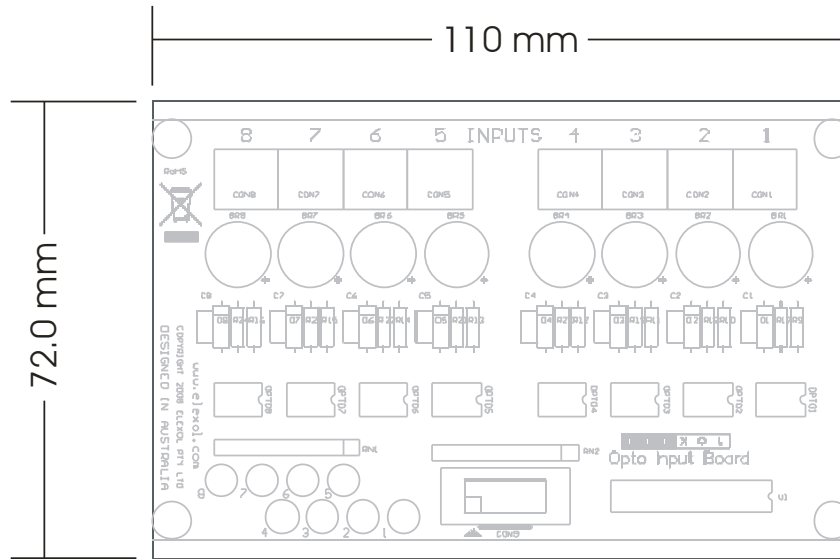
The connections to the input channels on the opto input board are by screw terminals that will accept cables 0.5 – 2 mm<sup>1</sup>. The connection between the I/O24 module and the opto input board is via a 30 cm IDC connection cable. This cable is provided with the board.

The board has been designed to a 72mm standard width so that it can easily be mounted in DIN rail mounting modules.

### BOARD FEATURES

- 8 x Optically Isolated Inputs for each of the I/O24 port pins
- Indication LED for channel input
- Screw Terminal Block connections for input channels
- Easy connection by 10-way box header to suit standard IDC connector for connection to the I/O port
- 72mm Standard width for DIN Rail Modules

## BOARD LAYOUT AND PHYSICAL DIMENSIONS

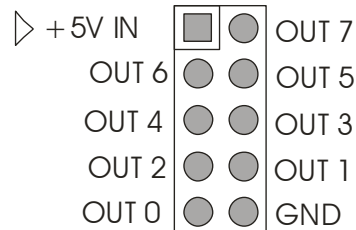


Dimensions - 4.3 X 2.8 inches (110 X 72 mm)

## BOARD CONNECTIONS

### 10 pin Box Header Pin out

Shown in the diagram below is the I/O port Connector for each of the Ports on the module.

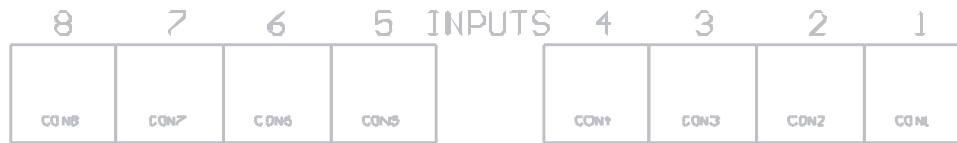


Listed in Table 1 below are the connections for the 10 Pin Box Header

PIN #	SIGNAL	TYPE	DESCRIPTION
1	+5V USB	PWR	+3.3V to +5V drawn from I/O module powers (N/C on relay board)
2	OUT7	O	Output pin from Opto Circuitry channel 8
3	OUT6	O	Output pin from Opto Circuitry channel 7
4	OUT5	O	Output pin from Opto Circuitry channel 6
5	OUT4	O	Output pin from Opto Circuitry channel 5
6	OUT3	O	Output pin from Opto Circuitry channel 4
7	OUT2	O	Output pin from Opto Circuitry channel 3
8	OUT1	O	Output pin from Opto Circuitry channel 2
9	OUT0	O	Output pin from Opto Circuitry channel 1
10	GND	PWR	Ground signal USB BUS and all I/O

## OPTO INPUT TERMINALS

The connections for the opto input channels are as follows:



There is no set polarity for the Opto input pins as each channel is run through a bridge rectifier.

## APPLICATIONS

Listed below are just a few applications the Opto Input board could be used for:

- Power sensing for switching purposes
- Isolated Inputs
- Home Automation

## SPECIFICATIONS

### Dimensions

4.3 X 2.8 inches (110 X 72 mm)

### Power Input Requirements to Opto Board

Power drawn from +5V @ 80 mA max.

### Opto Isolated Input Electrical Characteristics

Number of Channels 8  
 Logical Input High Voltage 3 to 24V AC or DC  
 Logical Input High Current 1mA to 12mA  
 Optically isolated to 7500 VAC (peak)

For further information regarding the release of this product please visit our website at <http://www.elexol.com> or contact us via email at [enquires@elexol.com](mailto:enquires@elexol.com)