



# IDRATEK

INTELLIGENT AUTOMATION

## **DIO-001**

### **4 Way General Purpose Digital Input/Output**

IDRATEK LTD  
8 Clanfield Court  
Newcastle Upon Tyne  
NE3 1TZ  
UK

t: +44 191 2840686  
w: [www.idratek.com](http://www.idratek.com)

*The information in this document is provided for guidance only. IDRATEK Ltd reserve the right to make any necessary changes, without notice, in order to improve the quality of their products.*

The DIO-001 module provides a basic digital input/output interface to the IDRANet system. It is intended as a low cost expansion base for creating add-on custom digital input and output interfaces and as such only provides low level unbuffered digital output signals and non-isolated inputs. However output signals retain advanced static and dynamic operation functions, and all inputs are reflex capable.

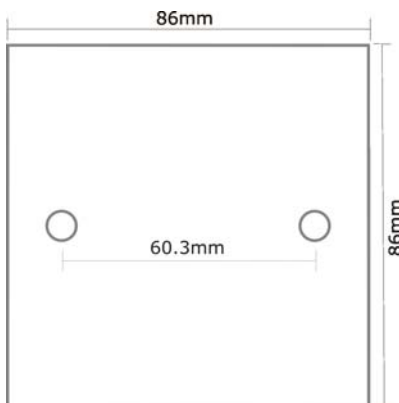


#### Physical

- 4 x 0-5V Digital Outputs (**non-isolated, unbuffered**)
- Maximum current sink per output 20mA (80mA total)
- Maximum source per output 1mA (5mA total)
- 4 x Digital Inputs (**non-isolated**)

#### Functional

- All input and output states can be interrogated at any time
- Highly flexible static output state modification eg. WRITE/SET/CLEAR/TOGGLE any group or individual
- Module start-up output states are user programmable
- Powerful programmable dynamic output functions include:
  - Single shot: Delay, activity time, post activity state
  - Toggle: Period, duration
  - PWM: Mark, space, duty cycle
- All Inputs can provide independent event triggers with mode programmable trigger gating:  
Eg: trigger on High->Low, trigger on Low->High, trigger on either transition, trigger and latch
- Each event trigger can generate a pre-defined response and/or several user programmable responses
- Status indicator LED
- Fully IDRANet Compatible
- Module Initialise trigger



#### Electrical

- Operating voltage 12-15V DC
- Current consumption 15mA (nominal)
- 0V Reference provided
- Maximum current sink per output 20mA (80mA total)
- Maximum source per output 1mA (5mA total)

#### Environmental

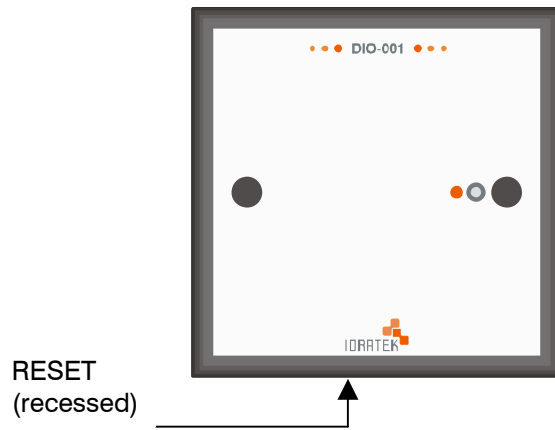
- Operating temperature -10°C to +45°C
- Operating humidity 5% to 95% (non-condensing)

#### Mechanical

- Designed to fit UK standard 35mm deep electrical pattrass
- 60.3mm fixing centres using standard M3.5 screws
- Digital output connections via 2.54mm pitch terminal block, up to 0.5mm<sup>2</sup> conductor cross section. Two 0V connection points.



Interfaces (front)



Interfaces (rear)

