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INTELLIGENT AUTOMATION

DTB-003

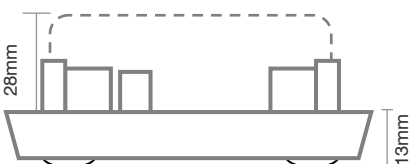
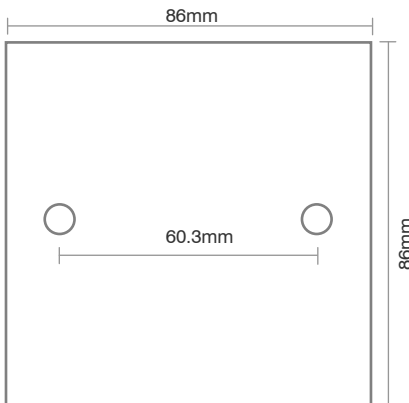
Dual 1A ZC Triac Outputs/ LEDs/Buttons/Digital Inputs

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The DTB-003 module provides two zero-crossing Triac switching outputs typically useful for low current AC loads which exhibit high inrush current characteristics, such as LED lamps, which can otherwise wear out and generate spot welds on mechanical relay contacts. The module thus integrates a number of basic digital input/output elements suited to functions such as lighting control, security system sensors/alarms interfacing, and general purpose low power mains rated switching activities. A pulse counting feature on the digital inputs allows interfacing to 3rd party pulse output metering devices, e.g. utility meters, anemometers, etc. Outputs are protected using onboard replaceable fuses and an onboard temperature sensor provides thermal overload protection. Note that only AC loads can be switched.



Features - Physical

- 2 * Positive Click Push Button Inputs
- 2 * Non-Isolated Digital Inputs with pulse counting capability
- 2 * General Purpose LED Indicator Outputs
- 2 * ZC Triac Outputs (Fused SPNO 1A/230Vac)

Features - 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 Input devices 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
- Pulse counting capability on digital inputs
- Board temperature sensor output
- Fully IDRANet Compatible
- Status indicator LED
- Module Initialise trigger
- In-situ reprogrammable firmware

Electrical

- Operating voltage 12-15V DC
- Current consumption 7mA (nom), 15mA (max)
- 0V Reference provided for digital inputs
- Switching output capacity 250W per channel

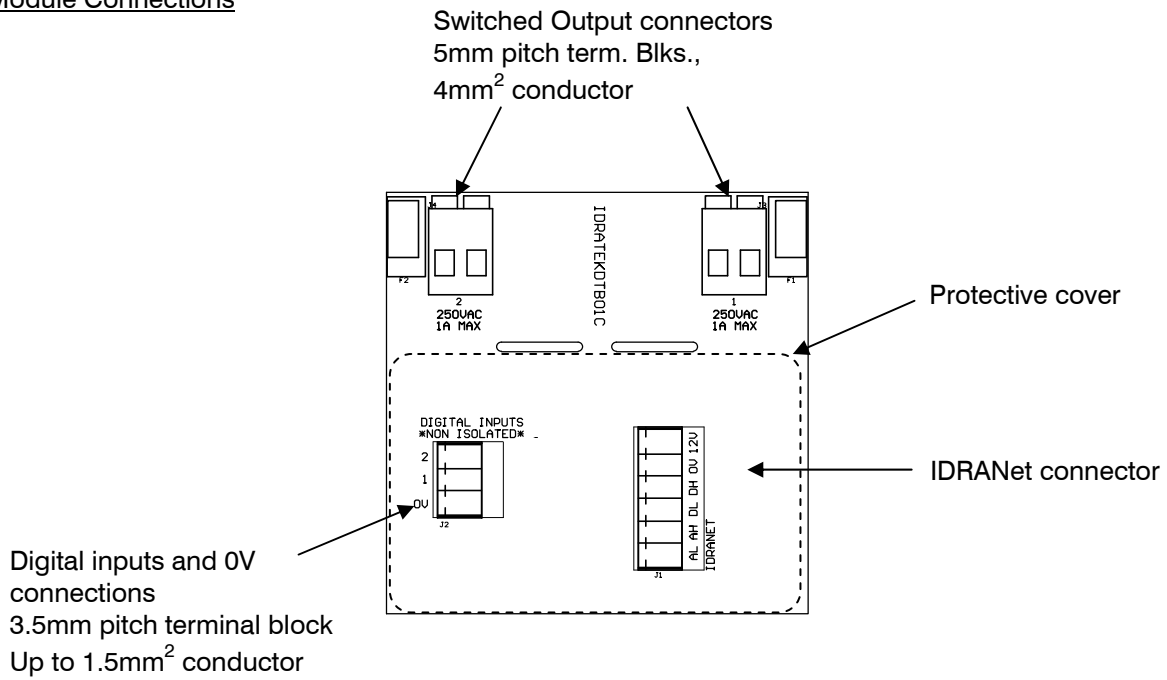
Environmental

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

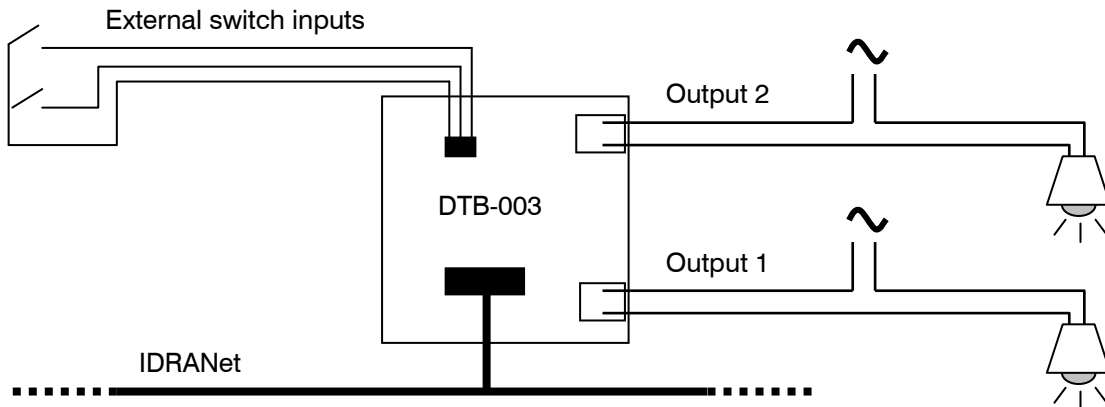
Mechanical

- Designed to fit UK standard 35mm deep electrical pattress box
- 60.3mm fixing centres using standard M3.5 screws
- Protective cover provided for low voltage cables
- Switched connections via 5mm pitch terminal block, up to 4mm² conductor cross section.
- Digital input connections via 3.5mm pitch terminal block, up to 1.5mm² conductor cross section.

Module Connections



Example connectivity



Note: Though both digital and analogue filtering are employed on all inputs, for longer (eg. >3m) normally open input connections it is advisable to take additional noise protection precautions, eg.: Use twisted pair or shielded cables (one side/shield to 0V).

Thermal trip

The on board temperature sensor will automatically cause the outputs to be turned off in the event of overheating. Output function will be resumed when the temperature drops below the lower threshold.