



IDRATEK

INTELLIGENT AUTOMATION

DRB-002

Dual 4A SPNO Relays/ LEDs/Buttons/Digital Inputs

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The DRB-002 module integrates a number of basic digital input/output elements suited to functions such as lighting control, security system sensors/alarms interfacing, and general purpose medium 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. Relay outputs are protected using onboard replaceable fuses.

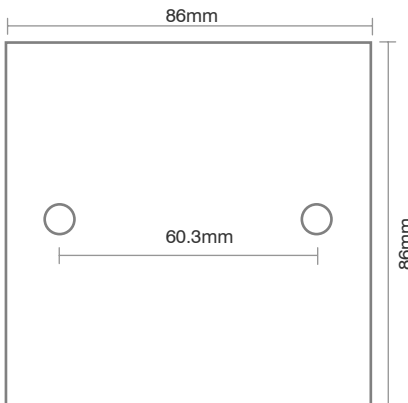


Features - Physical

- 2 * Positive Click Push Button Inputs
- 2 * Non-Isolated Digital Inputs with pulse counting capability
- 2 * General Purpose LED Indicator Outputs
- 2 * Relay Outputs (Fused SPNO 4A/230Vac/30Vdc)

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
- Fully IDRANet Compatible
- Status indicator LED
- Module Initialise trigger
- In-situ reprogrammable firmware



Electrical

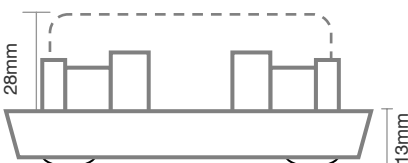
- Operating voltage 12-15V DC
- Current consumption 10mA (nom), 57mA (max)
- 0V Reference provided for digital inputs
- Switching output capacity 4A/230Vac/30Vdc per channel

Environmental

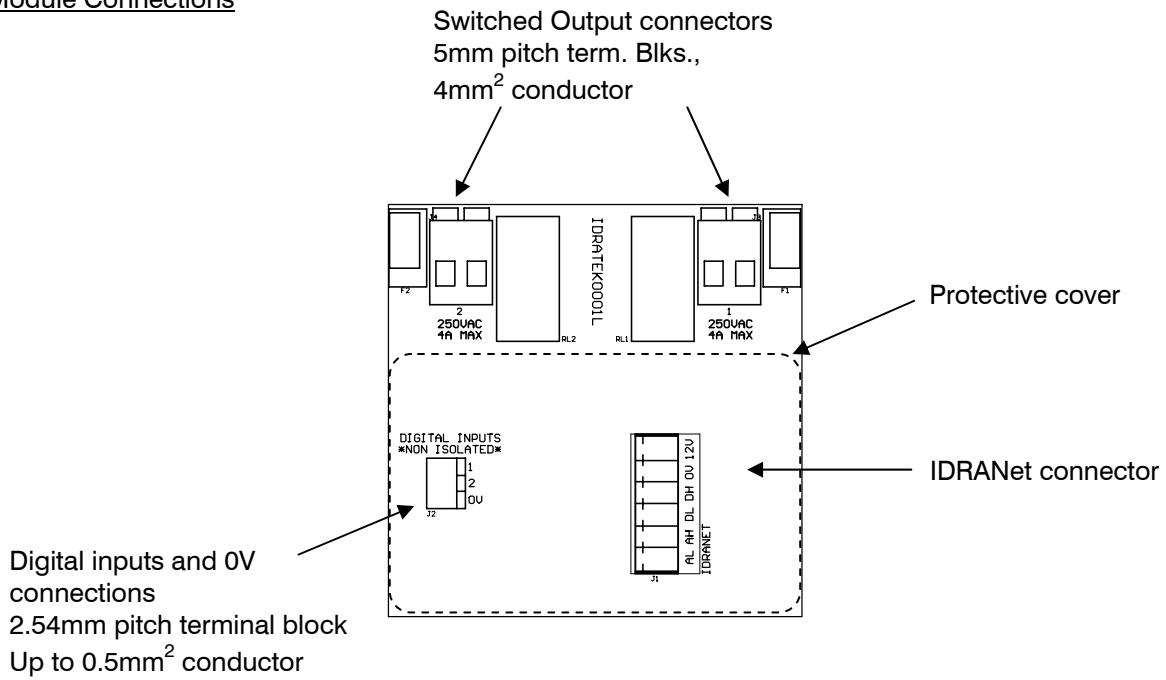
- Operating temperature -10°C to +45°C
- Operating humidity 5% to 95% RH (non-condensing)

Mechanical

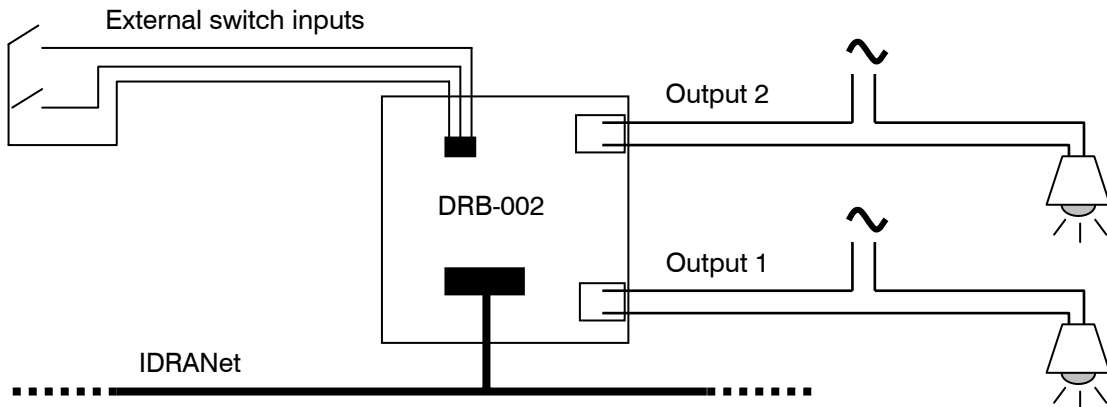
- Designed to fit UK standard 35mm deep electrical pattress box
- 60.3mm fixing centres using standard M3.5 screws
- Protective cover provided for low voltage cables
- Switched connections via 5mm pitch terminal block, up to 4mm² conductor cross section.
- Digital input connections via 2.54mm pitch terminal block, up to 0.5mm² 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).

Relay contact suppression

In some situations, eg. for highly inductive loads, it may be advantageous to connect suppression components across the load or, if not possible, across the relay terminals. Appropriately rated suppressors must be used eg 250Vac X2 type for mains switching.