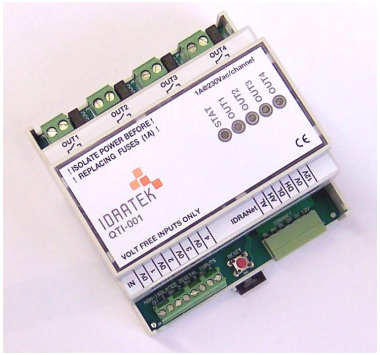
QTI-001

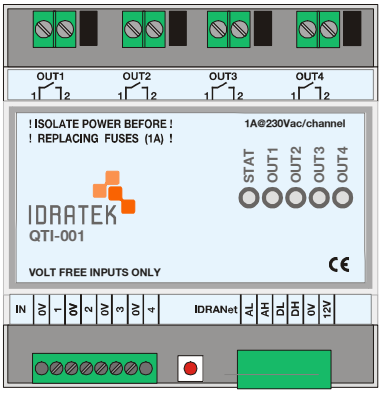
4x 1A Triac Relay/Digital Input

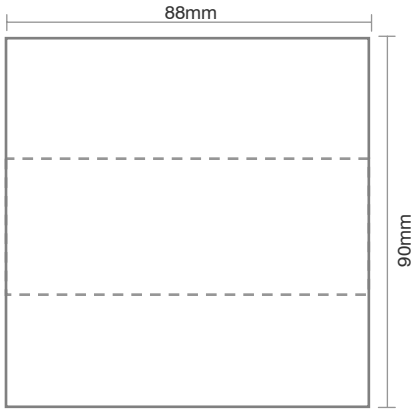
(5M DIN Enclosure)

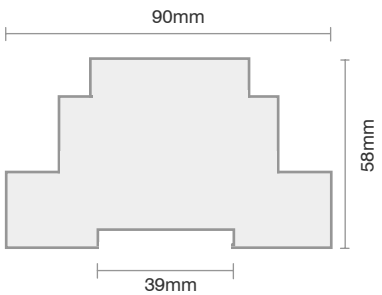
w: www.idratek.com

The QTI-001 module provides digital input/output elements suited to low power mains switching functions such as in LED lighting control and for general digital sensing such as off the shelf security system sensors or wall switches. Switching is accomplished using 'zero crossing' gated Triac technology – a form of non mechanical relay. Only AC loads can be switched but switch on and switch off occurs at a low voltage point in each AC cycle. This means reduced switching currents and makes the module suited to loads with potentially high inrush characteristics such as CFL and LED lighting but also good for small AC motors such as motorised valves, curtain/blind drives and fans. Output channels are protected by 1A fuses and the module as a whole by an over temperature cut out. Pulse counting features are available on digital inputs.









Features - Physical

- 4 x ZC Triac Outputs (SPNO 1A/230Vac with Fuse protection)
- 4 x Output state LED Indicators
- 4 x Non-Isolated Digital Inputs (Filtered)

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 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
- Module Initialise trigger
- Each event trigger can generate a pre-defined response and/or several user programmable responses
- Independent Pulse counting features on all inputs (eg. for connection to suitable utility meters)
- In-situ reprogrammable firmware
- Status indicator LED

Electrical

- Operating voltage 12-15V DC
- Current consumption 14mA (nom), 50mA (max)
- 0V Reference provided for digital inputs
- Switching output capacity 1A/230Vac per channel

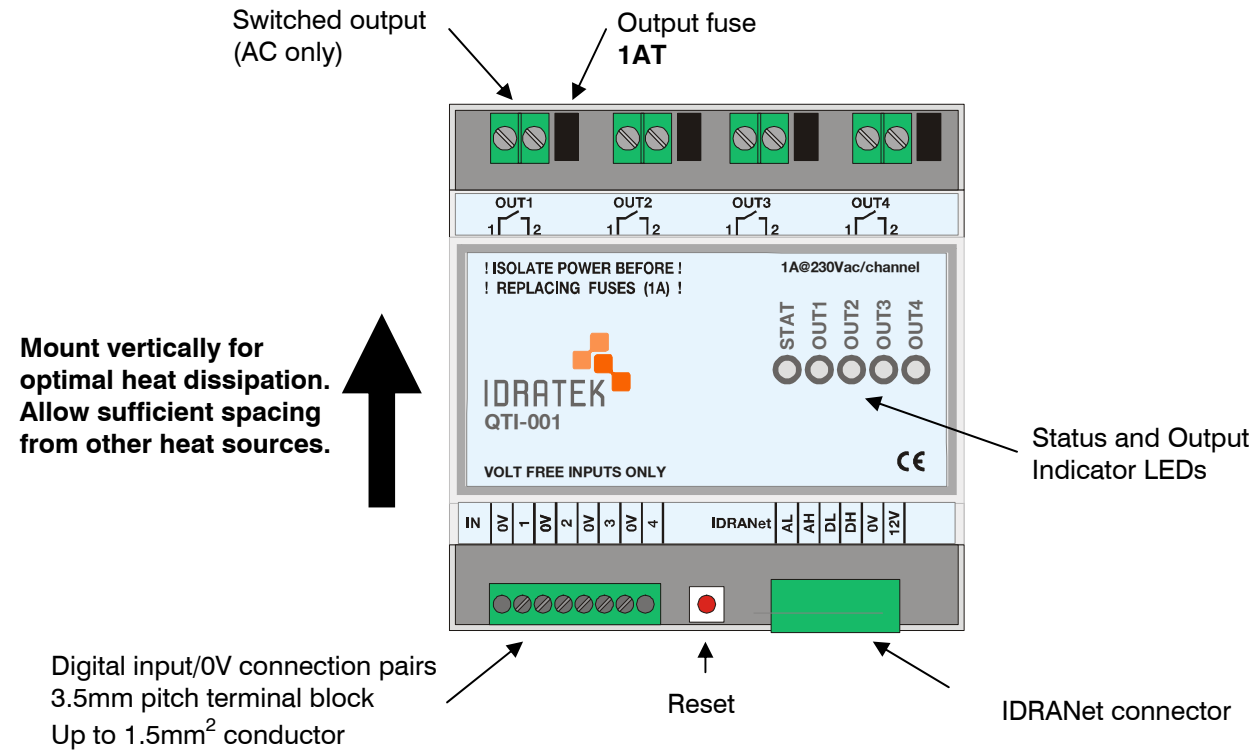
Environmental

- Operating temperature –10°C to +40°C
- Operating humidity 5% to 85% RH (non-condensing)

Mechanical

- Designed to fit standard 35mm DIN rail (5M wide)
- Switched connections via 5mm pitch terminal block, up to 4mm^2 conductor cross section.
- Digital input connections via 3.5mm pitch terminal block, up to 1.5mm^2 conductor cross section.

Module Connections



Example connectivity