



IDRATEK
INTELLIGENT AUTOMATION

QAI-002

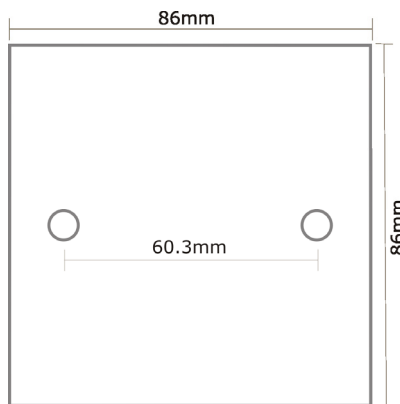
4 Way Analogue Input



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The 4 Way Analogue Input module provides a means of sampling signals from analogue signal output devices (eg. thermistor, humidity sensor, pressure sensor, potentiometer) either for monitoring or control purposes. The unit is only intended for conversion of relatively slow varying signals.



ADC Characteristics

- Number of channels: 4 (multiplexed, NON-ISOLATED)
- Input voltage range: 0V to +3.3V (0-5V and 0-10V options)
- Resolution over range: 8 bits monotonic
- Channel input impedance ~100K (~30K for 5V/10V options)
- Internal update rate ~30Hz

Functional

- Signal levels on all channels can be interrogated at any time
- All channel values are returned within one packet
- Any one of the four channels can be selected for Reflex functions
- Three independent event triggers for selected Reflex channel:
 - Signal level equals or exceeds user defined 'High' limit
 - Signal level equals or falls below user defined 'Low' limit
 - Signal level difference exceeds user defined 'Delta' limit (auto-datuming)
- Module wide Reflex functions:
 - Time interval trigger (ranges: 1-127 seconds/1- 127 minutes)
 - Module Initialise trigger
- User defined trigger enabling pattern
- Each event trigger can generate a pre-defined response and/or several user programmable responses
- Green status indicator LED
- In-situ reprogrammable firmware

Electrical

- Operating voltage 12-15V DC
- Current consumption 10mA (max)
- 0V,3.3V/5V (current limited) references provided for analogue inputs (e.g. for potentiometric sensors)

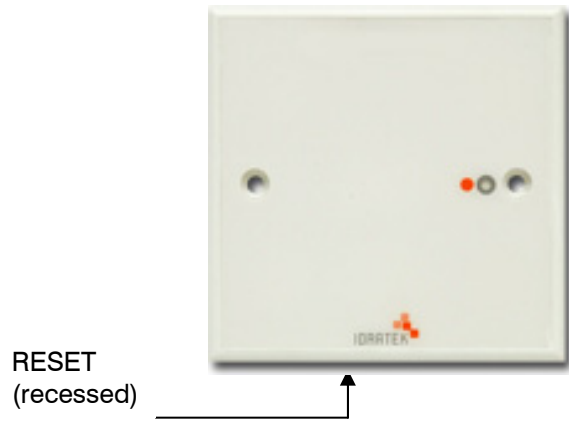
Environmental

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

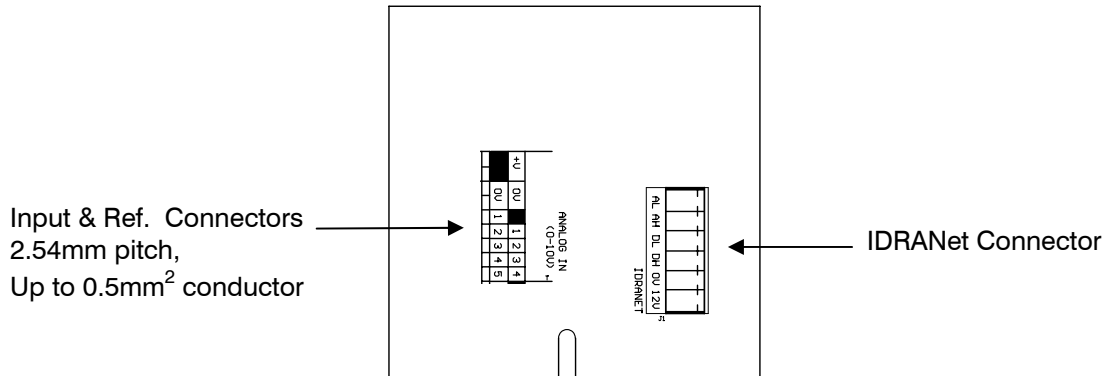
Mechanical

- Designed to fit UK standard 35mm deep electrical pattress
- 60.3mm fixing centres using standard M3.5 screws
- Input connections via 2.54mm pitch terminal block, up to 0.5mm² conductor cross section. Two 0V and two +5V connection points.

Interfaces (front)



Interfaces (rear)



Example NTC thermistor connectivity

For optimal performance use short cables for input connections - shielded if necessary.

Unused channel inputs should be connected to 0V

