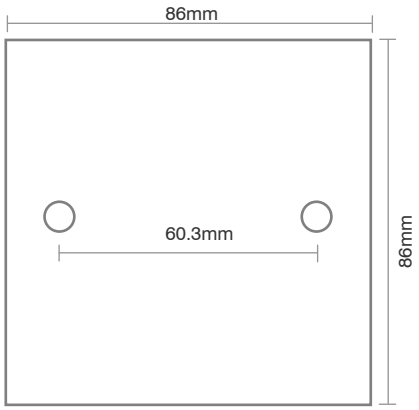
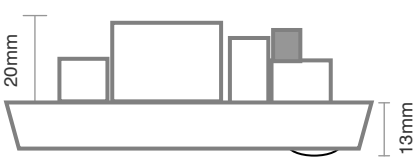
SRM-W01
Single 7A Fused Relay/LED/Button + 1x Digital Input + 1x Analogue Input

w: www.idratek.com

The SRM-W01 is a WiFi enabled module which communicates with Cortex and other IDRANet modules via the IDRANet Over The Air (IOTA) protocol. It integrates a number of basic input/output elements suited to general purpose medium power switching activities. The module has an onboard SMPS so is powered directly from the mains. Its SPNO switching relay output is separate from the mains input so can also be used to switch low voltage dc loads. A digital input is provided which can be used for 'volt free' binary sensors or switches. An analogue input is also provided which allows interfacing to resistive or other analogue signals. This module can be utilised for example to implement a one module wireless solution for electric UFH control, or it might be used for lighting or fan control in locations where both Live and Neutral mains connections are available The switched circuit is protected using an onboard fuse.





Radio

- WiFi IEEE 802.11 b/g/n 2412 - 2484MHz (2.4GHz band) FCC/CE
- Sensitivity: up to -90dBm
- Transmit power: up to 16dBm nom.
- WEP/WPA-PSK/WPA2-PSK
- Station and Access Point operating modes

Physical

- 1 x Positive Click Push Button Input
- 1 x Button LED Indicator Output
- 1 x Digital Input (for volt free contacts)
- 1 x Analogue input (0-3V3)
- 1 x Relay Output (SPNO fused to 7A/250Vac)

Functional

- Multiple WiFi communication methods:
  IOTA 0ver UDP (to Cortex), IOTA over MQTT, basic URL API
- All input and output states can be interrogated at any time
- Highly flexible static output state modification
- 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
- Each event trigger can generate a pre-defined response and/or several user programmable responses.
- Over the air reprogrammable firmware

Electrical

- On board SMPS connects directly to 100-240Vac
- Power consumption ~1W @ 240Vac
- 0V and 3V3 connections provided for input referencing
- ELV/LV isolation >3kV (8mm min creepage)
- Switching output capacity 7A/250Vac/30Vdc

Environmental

- Operating temperature –10°C to +40°C
- Operating humidity 5% to 95% (non-condensing)

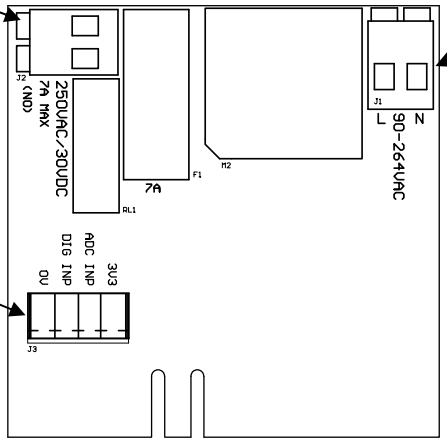
Mechanical

- Designed to fit UK standard 35mm deep electrical pattress
- 60.3mm fixing centres using standard M3.5 screws
- Switched connection via 5mm pitch terminal block, conductors up to 4mm^2
- Input connections via 3.5mm pitch terminal block, conductors up to 1.5mm^2

Module Connections

Switched Output connector
5mm pitch term. Blk.,
Up to 4mm^2 conductor

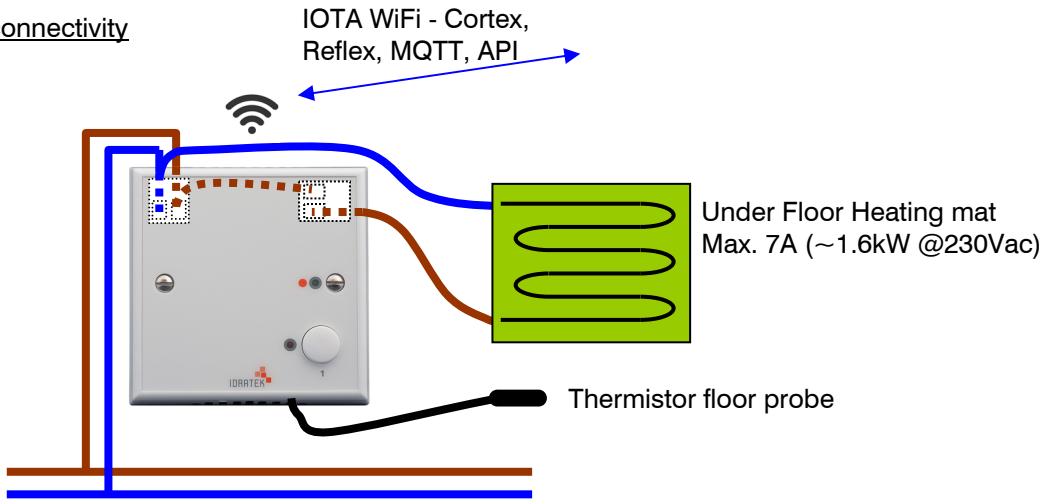
Mains power input connector
5mm pitch term. Blk.,
Up to 4mm^2 conductor

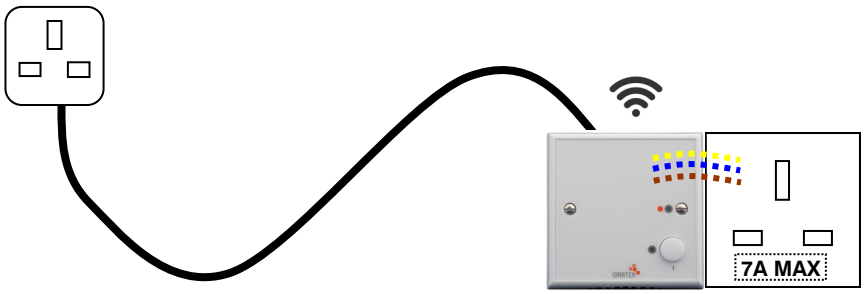


Digital & Analogue inputs with 0V and 3v3 reference connections
3.5mm pitch term. Blk.,
Up to 1.6mm^2 conductor

Note: Input connections are isolated from the mains supply but precautions should be taken to enforce separation between input wiring and mains wiring within the module enclosure if input wiring or signals will be exposed externally to human touch

Example connectivity





Example of switched socket using twin gang (1+1) pattress box. Note that the SRM-W01 switching capacity is limited to 7A