



# IDRATEK

INTELLIGENT AUTOMATION

## **THS-001**

### **Temperature and Humidity Sensor**

IDRATEK LTD  
8 Clanfield Court  
Newcastle Upon Tyne  
NE3 1TZ  
UK

t: +44 191 2840686  
w: [www.idratek.com](http://www.idratek.com)

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The High Resolution Temperature and Humidity Sensing module provides a means of accurately measuring ambient air temperatures and local relative humidity (RH) either for monitoring or control purposes. As with other IDRATEK modules a range of 'Reflex' functions is provided to allow control of other network devices based on temperature and relative humidity conditions. Accurate dewpoint calculation is possible due to co-location of humidity and temperature sensing elements.



#### Temperature Sensor Specifications<sup>1</sup>

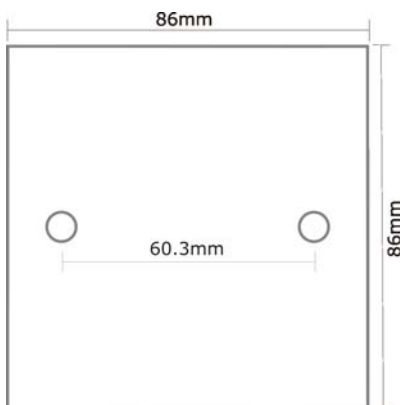
- Range: Beyond module operating limits (of -10°C to +45°C)
- Resolution: 0.03125°C
- Accuracy: +/- 0.5°C over module range
- Internal sensor sampling period: ~4 seconds

#### Relative Humidity (RH) Sensor Specifications<sup>1</sup>

- Range: Beyond module operating limits (of 5% to +95%)
- Raw data resolution: 12bit
- Accuracy: +/- 2% over module range (after linearisation)
- Internal sensor sampling period: ~4 seconds

#### Functional

- Temperature and RH values can be interrogated at any time
- 8 independent event triggers:
  - Temperature equals or exceeds user defined 'High' limit
  - Temperature equals or falls below user defined 'Low' limit
  - Temperature difference exceeds user defined 'Delta' limit (auto-datuming)
  - RH equals or exceeds user defined 'High' limit
  - RH equals or falls below user defined 'Low' limit
  - RH difference exceeds user defined 'Delta' limit (auto-datuming)
  - 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.
- Status indicator LED
- Fully IDRANet Compatible



#### Electrical

- Operating voltage 12-15V DC
- Current consumption 19mA (nominal)

#### Environmental

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

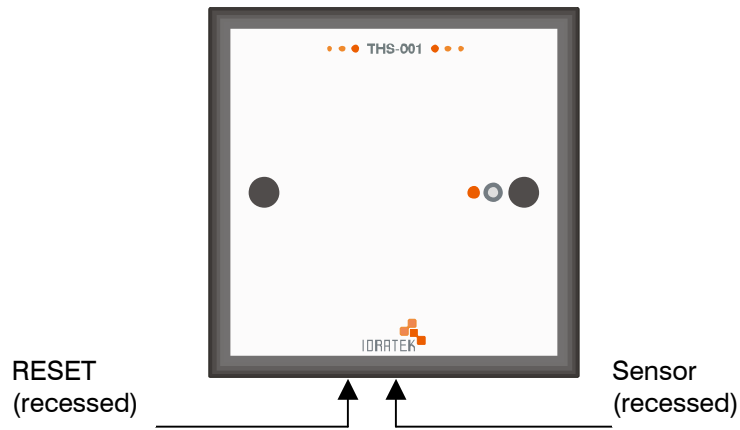


#### Mechanical

- Designed to fit UK standard 35mm deep electrical pattress
- 60.3mm fixing centres using standard M3.5 screws

<sup>1</sup> Manufacturers Data Sheet

Interfaces (front)



Interfaces (rear)

