



IDRATEK

INTELLIGENT AUTOMATION

PLH-001

**PIR + Light Level + Temperature +
Relative Humidity + 2x Digital inputs**

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This module combines PIR sensing, light level sensing, high resolution temperature and relative humidity sensing and 2 digital inputs in one package. It represents a very cost effective and space saving combination of occupancy, lighting, security and climate control sensors in one package. As with other IDRATEK modules a range of 'Reflex' functions is provided to allow control of other network devices based on motion, light level, temperature, humidity, and digital input conditions.



PIR Sensor Characteristics¹

- Detection cone: 82°V x100°H
- Detection zones: 64
- Range: 5m

Light Sensor Characteristics

- Module output range: 0 (dark) - 255 (bright)
- Resolution over range: 8 bits monotonic
- Spectral response of sensor: similar to human eye (~480-650nm)
- Measurement characteristics: Logarithmic with additional internal time response damping

Temperature Sensor Specifications¹

- 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 Specifications¹

- 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

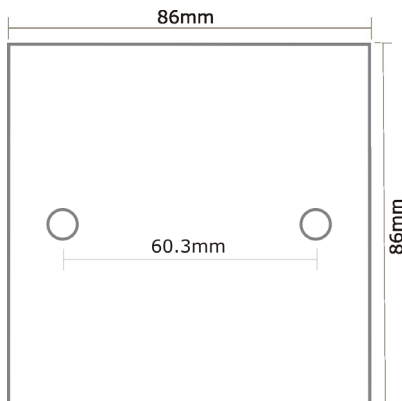


Digital Inputs

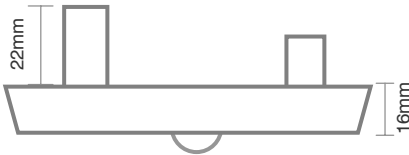
- 2 General purpose non isolated (internally pulled high to 3.3V)

Functional

- PIR state can be interrogated at any time
- Mode programmable trigger gating:
Eg: trigger on PIR->Low, trigger on PIR->High, trigger on either transition, trigger and latch
- User definable 'ON' dwell period
- PIR trigger can generate a pre-defined response and/or several user programmable responses
- Temperature, RH, Light level and digital input values can be interrogated at any time
- 16 independent event triggers:
 - PIR state change trigger
 - 2 x Digital Inputs state change trigger
 - 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)
 - Temperature time interval trigger (ranges: 1-127 seconds/1-127 minutes)
 - 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)
 - RH Time interval trigger (ranges: 1-127 seconds/1-127 minutes)



- Light level equals or exceeds user defined 'High' limit
- Light level or falls below user defined 'Low' limit
- Light level difference exceeds user defined 'Delta' limit (auto-datuming)
- Light level 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/PIR indicator LED
- In-situ reprogrammable firmware



Electrical

- Operating voltage 12-15V DC
- Current consumption 9mA (nominal)

Environmental

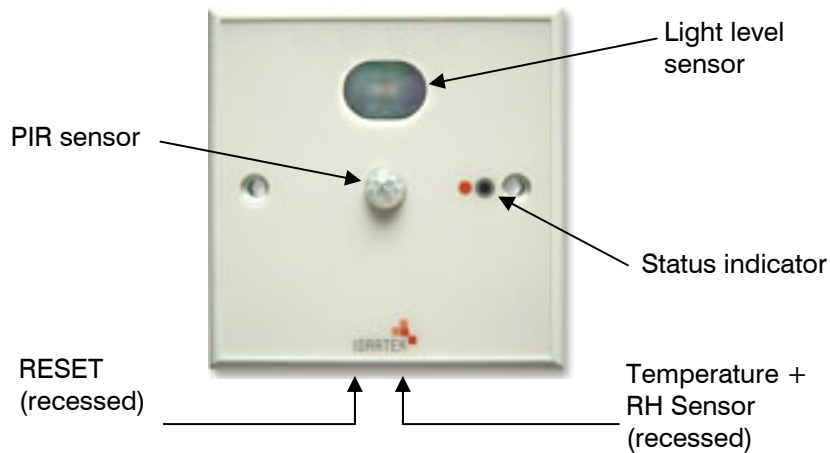
- Operating temperature -10°C to +45°C
- Operating humidity 5% to 95% (non-condensing)

Mechanical

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

¹ Manufacturers Data Sheet

Interfaces (front)



Interfaces (rear)

Digital inputs and 0V connection
2.54mm pitch terminal block
Up to 0.5mm² conductor

