

HIR05

PIR Lowbay | Circadian Rhythm | RJ12 connector to control body



Benefits

Compact: Standard rectangular Plug&Play sensor design

Versatile: Tri-level dimming + Daylight harvest + Circadian Rhythm

Easy configuration: Wireless Bluetooth 5.0 SIG-Mesh

Applications

For luminaires with a height of up to 3m

Classrooms

Offices

Check Out the Complete System Solution on the Website:
<https://www.hytronik.com/product/HIR05>

Product Description

This PIR sensor features three-level adjustment and natural light harvesting functions. It is compatible with Human Centric Lighting/Circadian Rhythm with DT8 controllers for tunable white control, includes a photocell for light detection, and offers active lux switching. Suitable for installations up to 3 m in height with a detection range of up to Ø = 6 m.

Functions and Features

See additional details at the end of datasheet



Daylight Harvest



Human Centric
Lighting (HCL)



RJ12 Connection



Tri-level Dimming

HIR05

PIR Lowbay | Circadian Rhythm | RJ12 connector to control body

Specifications

Main Capabilities

Connector Type	RJ12
----------------	------

Sensor Data

Detection angle	360°
Max. Detection range (Diameter)	6.0 m
Maximum Mounting Height	3.0 m
Detection area	28 m ²

Electrical Data

Operating voltage range	5 VDC
Warming-up	20 s

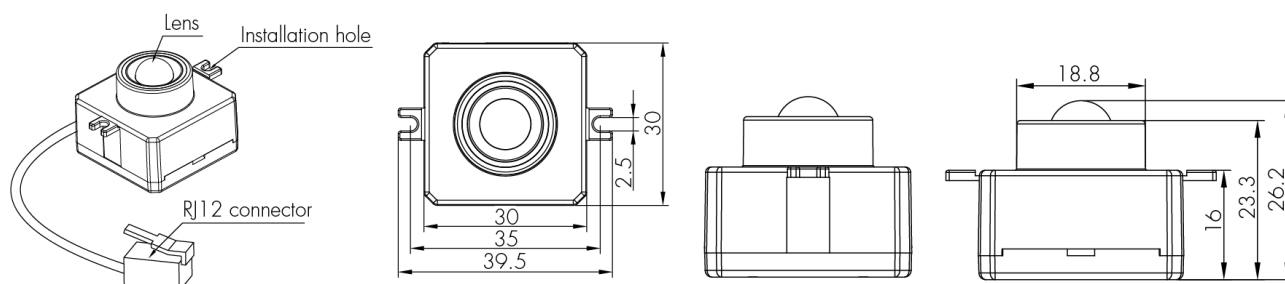
Specifications

Technical	
Product weight	30.0 g
Product height	26.2 mm
Product length	39.5 mm
Product width	30.0 mm
Mounting hole	2.5 mm
Ambient temperature	-20 ~ +55 °C
Humidity max	10 ~ 90%
IP Rate	IP20

HIR05

PIR Lowbay | Circadian Rhythm | RJ12 connector to control body

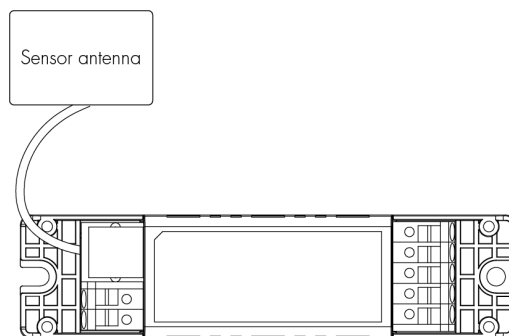
Technical Drawing



HIR05

PIR Lowbay | Circadian Rhythm | RJ12 connector to control body

Wiring Diagram

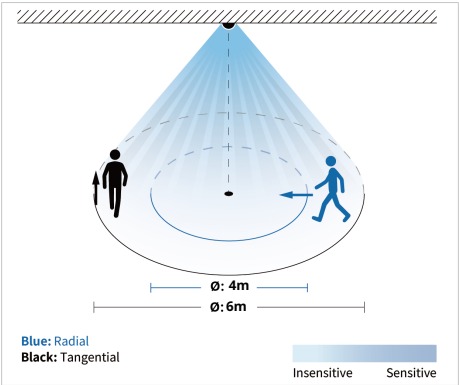


Detection Range

Single Person Walk (Ceiling mount)

- The data below is tested under following conditions:
- Single person walking
 - Sensor not connected to any driver that may have soft-on period
 - Testing temperature Ta = 20°C
 - The testing is conducted in an open and spacious indoor field, without noticeable obstacles or influences that may affect PIR performances.

Detection example 3m mounting height:



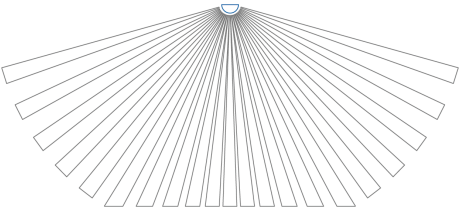
Tangential Movement

H[m]	3
Ø[m]	6

Radial Movement

H[m]	3
Ø[m]	4

Detection schematic diagram



Commissioning Instructions and Precautions

A. Installation Notes

1. This product should be installed by a qualified electrician.

B. Sensor Combination

1. This model of sensor head is a non-BLE model. Only when the sensor is connect to the Bluetooth control base can it realize bluetooth function.
2. Tri-level dimming and daylight harvesting functions depend on the capabilities of the connected sensor body and driver. Please ensure that both the body and driver support these features. On/off products do not provide these functions.

Warning: For additional important documents, including installation precautions, product guidelines, and guarantee conditions, please refer to the official downloads.

<https://hytronik.com/service/downloads>

HIR05

PIR Lowbay | Circadian Rhythm | RJ12 connector to control body

Options

Compatible products (for full functionality)



HBEM01

Integrated Mains & Emergency Control | Max. (Main 25W / EM 3W) | Attachable sensor heads
www.hytronik.com/product/HBEM01



HBEM02

Emergency Inverter Max.4W | Bluetooth remote control | Attachable sensor heads
www.hytronik.com/product/HBEM02



HBEM03

Mains & EM Control | Max. EM 4W output | Attachable sensor heads
www.hytronik.com/product/HBEM03



HBEM038

DALI/Bluetooth Converter | 30mA DALI Broadcast Output | Attachable sensor heads
www.hytronik.com/product/HBEM038



HBEM04

Emergency Inverter Max.5W | DALI Dimmable | Attachable sensor heads
www.hytronik.com/product/HBEM04



HBEM05

Emergency Inverter Max.12W | DALI Dimmable | Attachable sensor heads
www.hytronik.com/product/HBEM05



HBEM06

Emergency Sign Maintained Max.4w | Bluetooth control | Attachable sensor heads
www.hytronik.com/product/HBEM06



HC038V/BT

Control body | Bluetooth with 0/1-10V | Attachable sensor heads
www.hytronik.com/product/HC038V-BT



HC438V/BT

Control body | Bluetooth & 0/1-10V | Attachable sensor heads
www.hytronik.com/product/HC438V-BT



HCD038/BT

Control unit | Bluetooth DALI with PSU | Attachable sensor heads
www.hytronik.com/product/HCD038-BT



HCD038/BT/RGBW

Bluetooth DALI RGBW Converter | Integrated 30 mA PSU | Attachable sensor heads
www.hytronik.com/product/HCD038-BT-RGBW



HCD438/BT

Control body | Bluetooth & DALI | Attachable sensor heads | US Certified
www.hytronik.com/product/HCD438-BT



HED1025/BT

Bluetooth LED Driver 25W (CC) | Dimmable | Built-in version
www.hytronik.com/product/HED1025-BT



HED6040/BT

Bluetooth LED Driver 40W (CC) Dimmable | Plug'n'Play | Built-in
www.hytronik.com/product/HED6040-BT



HED6045/BT

Bluetooth LED Driver 45W (CC) Dimmable | Plug&Play | Built-in/Stand-alone
www.hytronik.com/product/HED6045-BT



HED6060/BT

Bluetooth LED Driver 60W (CC) Dimmable | Plug'n'Play | Built-in
www.hytronik.com/product/HED6060-BT



HED7030/BT

Bluetooth LED Driver 30W (CC) Dimmable | Plug'n'Play | Built-in version
www.hytronik.com/product/HED7030-BT



HED8040/BT

Bluetooth LED Driver 40W (CC) Tunable white | Plug'n'Play | Built-in
www.hytronik.com/product/HED8040-BT

HIR05

PIR Lowbay | Circadian Rhythm | RJ12 connector to control body

Options

Compatible products (for full functionality)



HED8045/BT

Bluetooth LED Driver 45W (CC) Tunable white | Plug'n'Play |
Built-in/Stand alone

www.hytronik.com/product/HED8045-BT



HED8080/BT

Bluetooth LED Driver 80W (CC) | Tunable white | Built-in

www.hytronik.com/product/HED8080-BT



HED8060/BT

Bluetooth LED Driver 60W (CC) | Tunable white | Built-in

www.hytronik.com/product/HED8060-BT

Functions and Features



Daylight Harvest

Right time, right place and the right amount of light! Daylight harvest (Also known as daylight regulating or daylight interaction) is a must in the future lighting norms. It automatically measures available natural light and adjusts artificial lighting output to maintain the target illuminance level. Using daylight sensor feedback, control signals are transmitted to the LED drivers via DALI or 0–10V interfaces, ensuring the required light output is delivered only when needed, improving visual comfort and reducing energy consumption.



Human Centric Lighting (HCL)

Human Centric Lighting (HCL) helps reduce energy consumption while supporting human wellbeing and productivity in artificially lit environments. Through Hytronik's decentralised tunable white control with integrated time-based operation, HCL enables cost-effective circadian rhythm lighting without the complexity of centralised lighting systems. Designed as a simple and flexible solution, it is ideal for offices, schools, and healthcare applications requiring dynamic white light adjustment throughout the day.



RJ12 Sensor Connection

The product features an RJ12 plug-and-play connection interface, enabling quick, tool-free installation and easy maintenance. The standardized connector supports flexible integration between drivers, sensor bases and sensor heads, ensuring reliable communication and simplifying replacement or system expansion. This modular connection method enhances installation efficiency and reduces wiring complexity in both new and retrofit applications.



Tri-level Dimming

Hytronik's tri-level dimming products offer 3 levels of light control: 100% dimmed light off, with settable time periods between each phase, as well dimming level and daylight threshold.

*All Hytronik's tri-level dimming products can also be configured as bi-level control (by setting the stand-by period to infinity), so that the light always remains in the dimmed mode in absence for areas where there are safety, security or enhanced comfort requirements.

Check out for further explanation of features

<https://hytronik.com/solutions/lighting-control-features>