

HIR63/R

PIR Midbay Sensor Head | RJ12 connector | Conduit Screws

HYTRONIK®
SENSORS & LIGHTING CONTROL



Benefits

Flexible: Easy upgrade or extension of sensing functions

Compatible: Compatible with Bluetooth control bases and drivers

Plug-and-play: Enabling fast installation and replacement

Applications

Conduit thread: M 22x1.5mm

Warehouse/ Logistic

Production/ Industry

Check Out the Complete System Solution on the Website:
<https://www.hytronik.com/product/HIR63-R>



Product Description

HIR63/R is a plug-and-play infrared sensor head designed for reinforced mid-bay applications with a typical mounting height of 6 m, working with Bluetooth control bases and drivers such as HCD038/BT, HC038V/BT, and HC438V/BT to provide a flexible solution for adding smart sensing capability to luminaires. When used with a Bluetooth control body, the non-Bluetooth sensor head is especially suitable for upgrading metal luminaires to wireless control, enabling functions such as dimming and daylight-based lighting control. The modular design allows easy upgrading or extension of sensing functions according to project requirements while maintaining system flexibility and simplifying installation.

Functions and Features

See additional details at the end of datasheet



Daylight Harvest



RJ12 Connection



Tri-level Dimming

HIR63/R

PIR Midbay Sensor Head | RJ12 connector | Conduit Screws

Specifications

Main Capabilities

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

Sensor Data

Detection angle	360°
Lux range	2 ~ 1000 lux
Max. Detection range (Diameter)	20.0 m
Maximum Mounting Height	12.0 m
Detection area	314 m²

Electrical Data

Input Voltage	4.75-5.25
Warming-up	20 s
Current Consumption	0.24mA

HIR63/R

PIR Midbay Sensor Head | RJ12 connector | Conduit Screws

Specifications

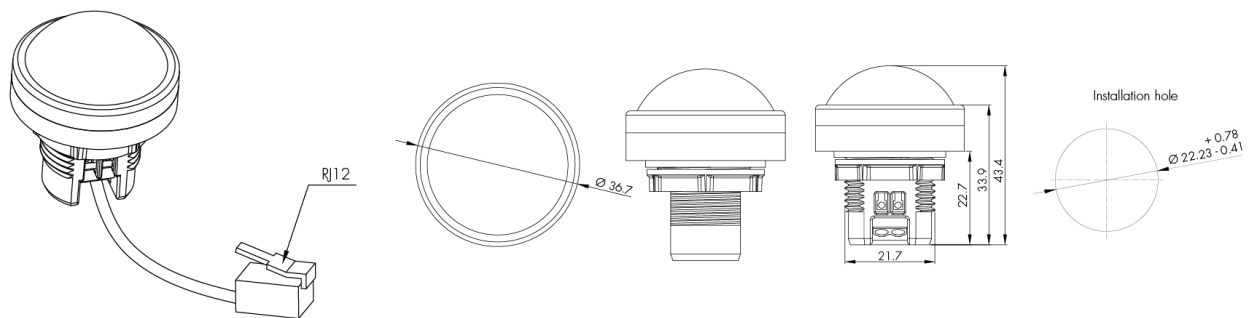
Technical	
Product weight	23.0 g
Product height	43.4 mm
Product length	36.0 mm
Product width	36.0 mm
Mounting hole	22.0 mm
Cable length	30.0 cm
Ambient temperature	-20 ~ +50 °C
Storage temperature	-40 ~ +70 °C
Humidity max	10 ~ 90%
IP Rate	IP20
IP Rate (facial part)	IP 65

Standard	
EMC	EN 55015, EN 61547
LVD	EN 61347-1/-2-11

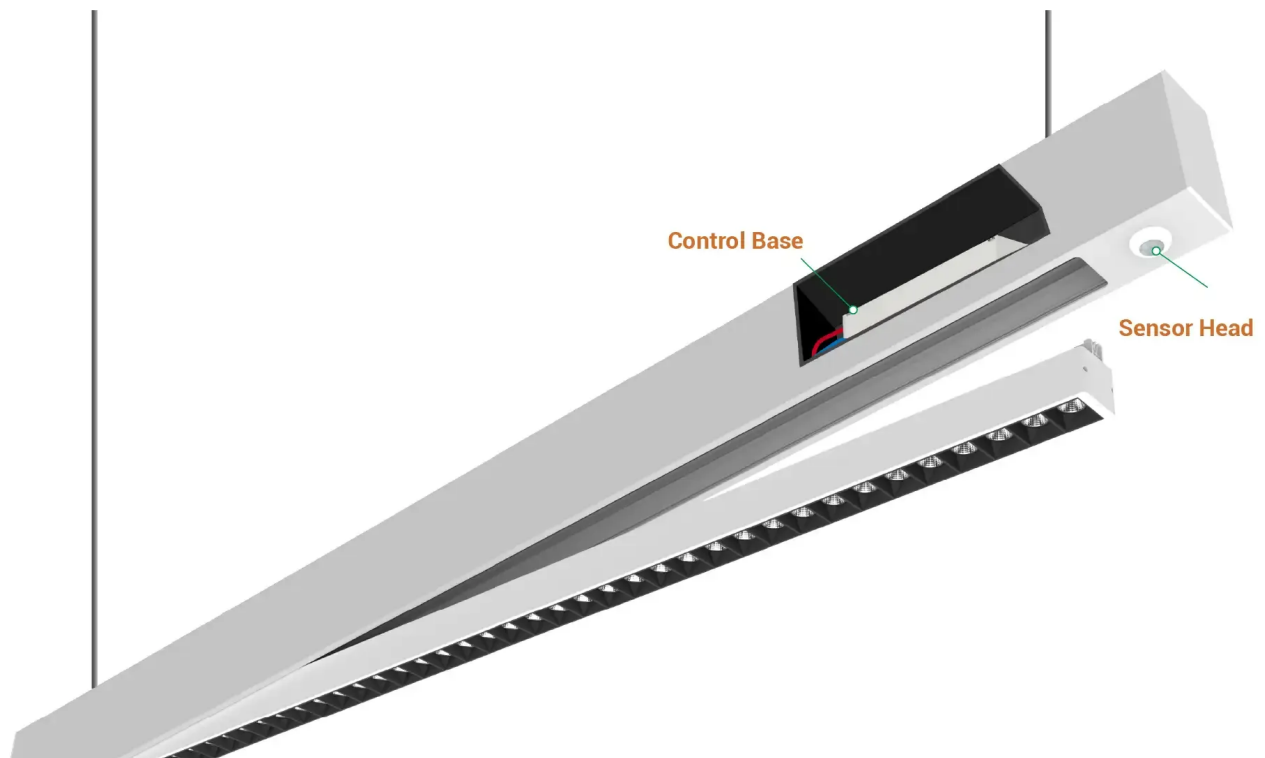
HIR63/R

PIR Midbay Sensor Head | RJ12 connector | Conduit Screws

Technical Drawing



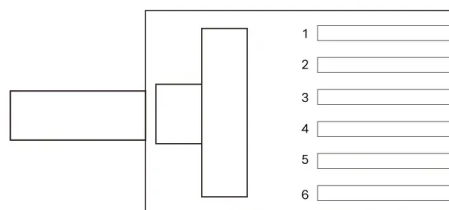
Application Example



HIR63/R

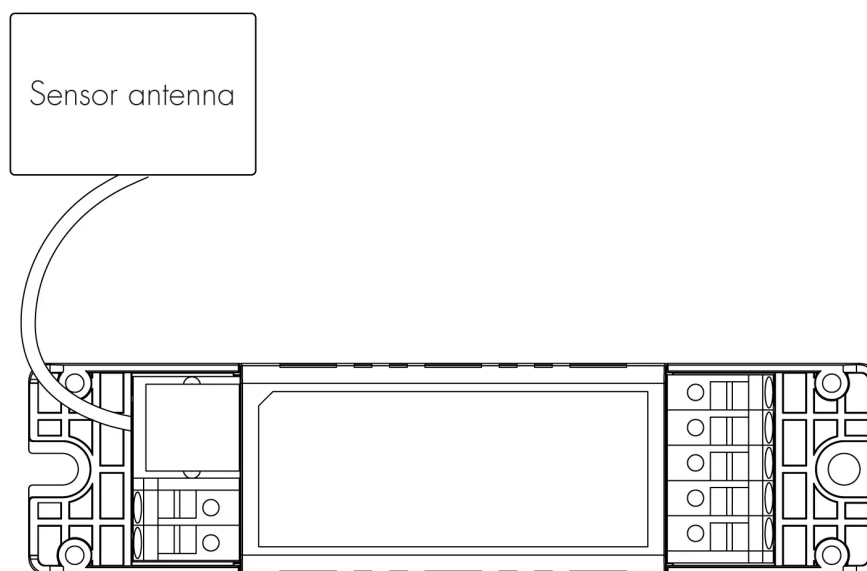
PIR Midbay Sensor Head | RJ12 connector | Conduit Screws

Wire Preparation



The connector is an RJ12 6P6C plug, with pin assignment as follows: Pin 1 is SBT, Pin 2 is PIR, Pin 3 is GND, Pin 4 is PD1, Pin 5 is +5V, and Pin 6 is not connected (NC).

Wiring Diagram

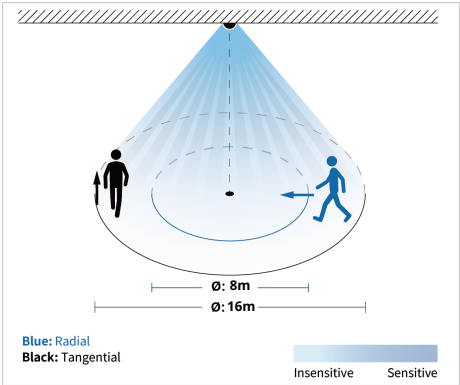


Detection Range

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 8m mounting height:



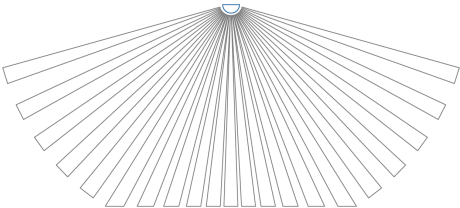
Tangential movement

H[m]	8	9	10	11	12
Ø[m]	16	17	18	20	20

Radial movement

H[m]	8	9	10	11	12
Ø[m]	8	8	9	10	10

Detection schematic diagram

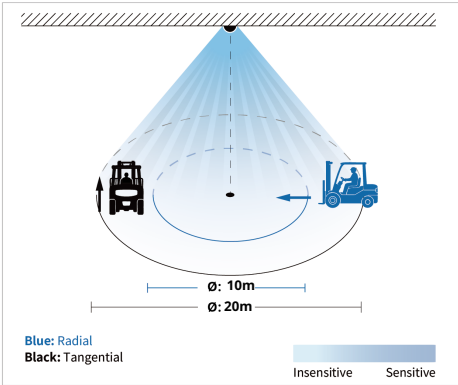


Detection Range

Forklift (Ceiling mount)

- The data below is tested under following conditions:
- Forklift driving at a speed of 5km/h
 - 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 12m mounting height:



Tangential movement					
H[m]	8	9	10	11	12
Ø[m]	16	17	18	20	20

Radial movement					
H[m]	8	9	10	11	12
Ø[m]	8	8	9	10	10

HIR63/R

PIR Midbay Sensor Head | RJ12 connector | Conduit Screws



Commissioning Instructions and Precautions

A. Installation Notes

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

B. Function Notes

1. This sensor head is non-Bluetooth. Wireless control can only be achieved when connected to a Bluetooth-enabled body and a Bluetooth driver.
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>

HIR63/R

PIR Midbay Sensor Head | RJ12 connector | Conduit Screws

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 | US Certified
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



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



HED8045/BT

Bluetooth LED Driver 45W (CC) Tunable white | Plug'n'Play | Built-in/Stand alone
www.hytronik.com/product/HED8045-BT

HIR63/R

PIR Midbay Sensor Head | RJ12 connector | Conduit Screws

Options

Compatible products (for full functionality)



HED8060/BT

Bluetooth LED Driver 60W (CC) | Tunable white | Built-in
www.hytronik.com/product/HED8060-BT



HED8080/BT

Bluetooth LED Driver 80W (CC) | Tunable white | Built-in
www.hytronik.com/product/HED8080-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.



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>