

HIR11/AA

PIR Highbay | Adjustable Angle | RJ12 connector to control body

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POWERED BY **Koolmesh**[®]



Benefits

Compact: Flush mount plug&play sensor design

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

Compatible: Compatible with Bluetooth control bases and drivers

Applications

Corridors / Walkways application

Industry

Offices

Check Out the Complete System Solution on the Website:
<https://www.hytronik.com/product/HIR11-AA>



Product Description

The HIR11/AA is a high-bay PIR sensor head compatible with the Daylight Harvest system. It can work with linear control bases such as the HC038V/BT and HCD038/BT to enable Bluetooth control functions, including tri-level dimming and circadian rhythm adjustment — all through a plug-and-play design that lets you customize lighting without extra accessories. Perfect for warehouses, gyms, and open-plan offices where flexibility matters most.

Functions and Features

See additional details at the end of datasheet



Daylight Harvest



RJ12 Connection



Tri-level Dimming

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Specifications

Main Capabilities	
Connector Type	RJ12

Sensor Data	
Detection angle	360°
Max. Detection range (Diameter)	24.0 m
Maximum Mounting Height	15.0 m
Detection area	452 m²
Detection Methods	Passive Infrared (PIR)

Electrical Data	
Operating voltage range	5 VDC

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Specifications

Technical	
Product weight	117.0 g
Product height	75.5 mm
Product length	90.0 mm
Product width	90.0 mm
Ambient temperature	-20 ~ +50 °C
Storage temperature	-40 ~ +70 °C
Humidity max	10 ~ 90%
IP Rate	IP20

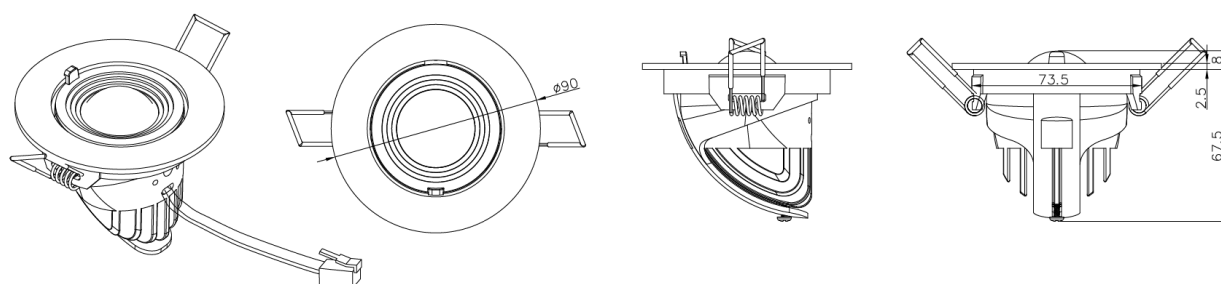
Standard	
EMC	EN 55015, EN 61000, EN 61547
LVD	AS/NZS 60669-1/-2-1

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Technical Drawing



HIR11/AA

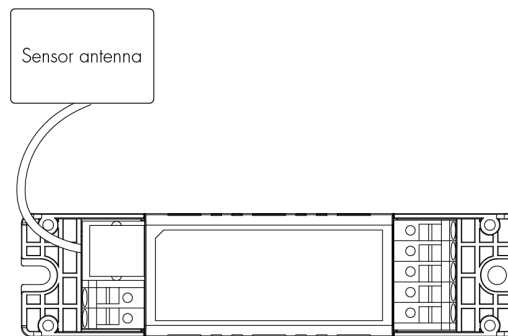
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Wiring Guidelines

1. Installation by a qualified electrician only and in accordance with local electrical regulations.
2. Disconnect mains power before installation, wiring, maintenance or replacement.
3. Failure to follow the wiring diagram may result in product damage and malfunction.

Wiring Diagram

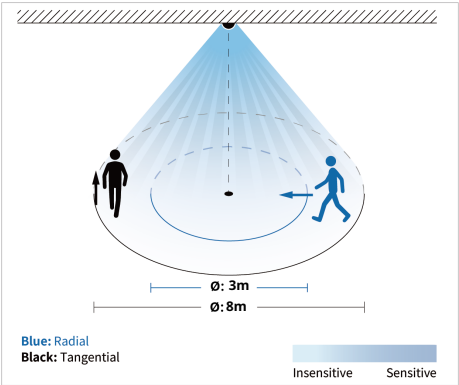


Detection Range

Single Person Walk (Ceiling mount)

- The data 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 2.5m mounting height:



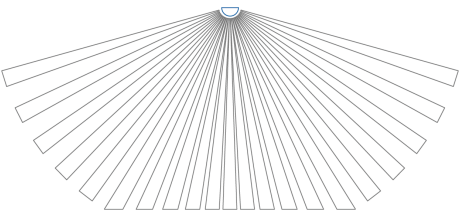
Tangential movement

H[m]	2.5	6	8	10	11	12
Ø[m]	8	11.5	14	17	18.5	20

Radial movement

H[m]	2.5	6	8	10	11	12
Ø[m]	3	3	3	3	3	3

Detection schematic diagram

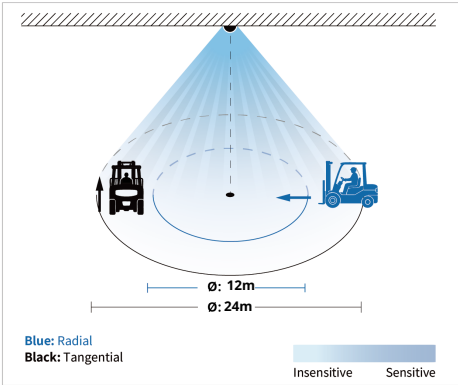


Detection Range

Forklift (Ceiling mount)

- The data 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 15m mounting height:



Tangential movement						
H[m]	10	11	12	13	14	15
Ø[m]	22	24	24	24	24	24

Radial movement						
H[m]	10	11	12	13	14	15
Ø[m]	16	16	16	15	13	12

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Commissioning Instructions and Precautions

A. Installation Notes

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

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

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

Switch Input Function Configuration

The Virtual Push interface provides a software-based dimming control method without the need for a physical wall switch. Push functions are simulated via the Koolmesh app, where detailed push behaviors and parameters can be flexibly configured.

Note: Single press, double press, and press-and-hold actions can each be independently assigned to one function via the app. Once configured, each action triggers only its assigned function. Multiple functions cannot be activated by a single press action.

Switch function	Action	Descriptions
Virtual-Normal PUSH (Retractive Switch)	Single press (>0.1s) Double press Press and hold (>=1s)	• ON/OFF • ON only • OFF only • Recall this scene • Sensor take over • Not in use

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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 | 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

Maintained Emergency Exit Sign Driver | Max. 4 W Output | 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



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



HED8045/BT

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



HED8060/BT

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

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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>