

HIR15/RC05

PIR Highbay | 0-10V dimmable | Zhaga Book 18



Benefits

Standardized: Zhaga Book 18 interface with IP65 for reliable integration

Adjustable: Shielding cap for flexible detection area control

User-friendly: All sensor settings via IR controller

Applications

For highbay luminaire up to 15m height

Warehouse/ Logistic

Outdoor/Street lights

Check Out the Complete System Solution on the Website:
<https://www.hytronik.com/product/HIR15-RC05>



RoHS

UK
CA

Product Description

HIR15/RC05 is a 0-10V PIR motion sensor that complies with Zhaga Book 18 standards. With a built-in light sensor, it provides precise dimming control. The product features an IP65 rating, making it suitable for high-bay applications, with a typical installation height of up to 15 m, ideal for outdoor lighting such as streetlights. The removable shielding cap allows flexible adjustment of the detection range to meet different installation requirements. All parameters can be configured via remote control, enabling quick setup and one-key commissioning for multiple devices.

Functions and Features

See additional details at the end of datasheet



0-10V Dimming

IP65

IP65 Protection



One-key
Commissioning



Zhaga Book 18
Standard

HIR15/RC05

PIR Highbay | 0-10V dimmable | Zhaga Book 18

Specifications

Main Capabilities

Dimming (Output) Interface	0-10V
----------------------------	-------

Sensor Data

Detection angle	360°
Lux range	0~50 lux
Max. Detection range (Diameter)	20.0 m
Maximum Mounting Height	15.0 m
Detection area	314 m²
Sensitivity	10% / 50% / 100%

Electrical Data

Operating voltage range	12-18 VDC (10mA)
Output Voltage	0~10 V
Stand-by power (Psb)	<0.2W
Warming-up	30 s

HIR15/RC05

PIR Highbay | 0-10V dimmable | Zhaga Book 18

Specifications

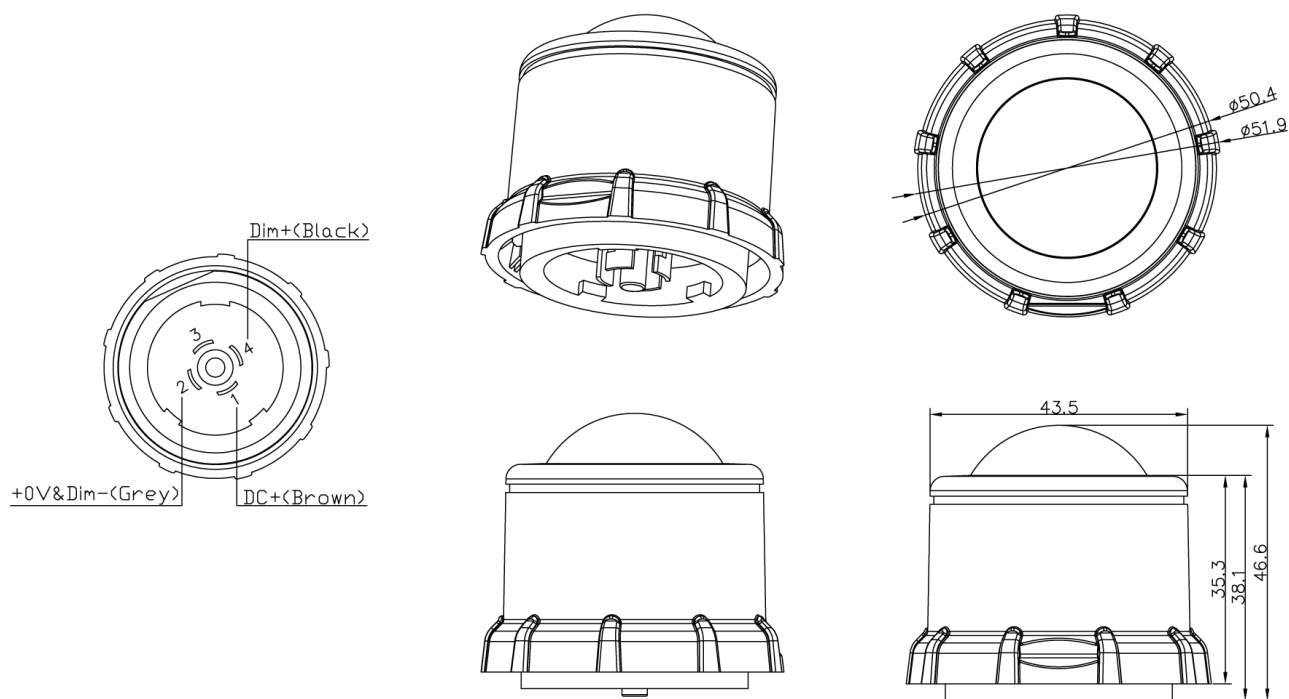
Technical	
Product height	47.8 mm
Product length	50.4 mm
Product width	50.4 mm
Ambient temperature	-25 ~ +50 °C
Storage temperature	-35 ~ +70 °C
Humidity max	0 ~ 90%
IP Rate	IP65

Standard	
EMC	EN 61547
LVD	EN 61347-1, EN 61347-2-11
Compliance	Reach

HIR15/RC05

PIR Highbay | 0-10V dimmable | Zhaga Book 18

Technical Drawing



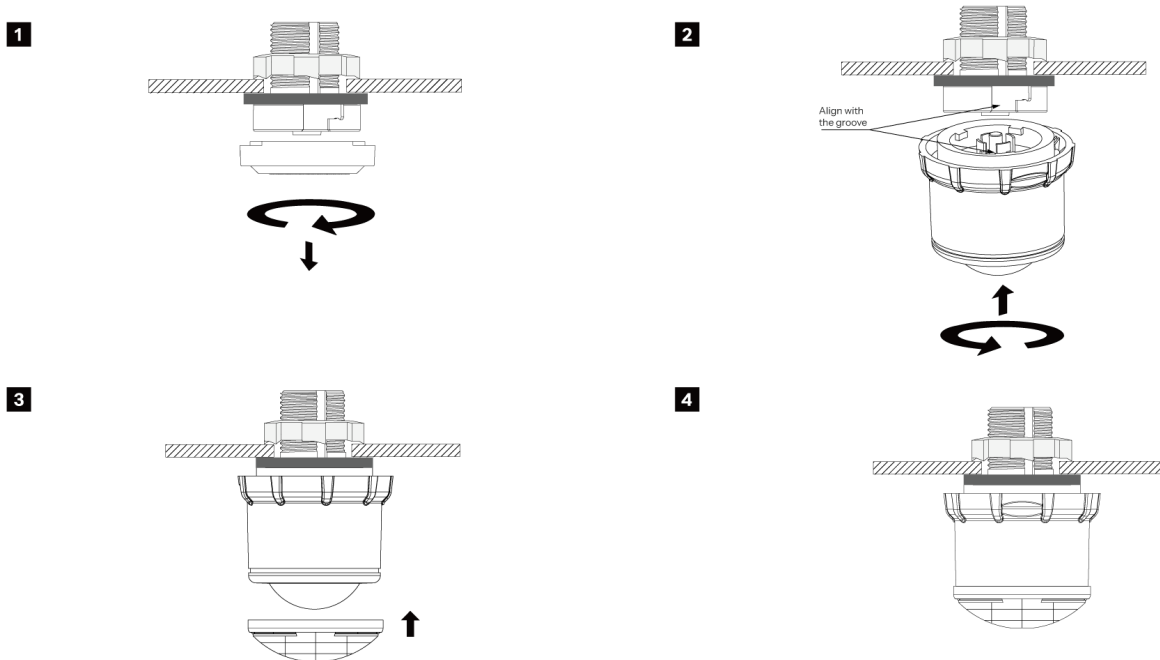
Application Example



HIR15/RC05

PIR Highbay | 0-10V dimmable | Zhaga Book 18

Installation Process



Detailed Installation Instructions

1. Remove the receptacle cap

Unscrew and remove the protective cap from the receptacle before installation.

2. Install the sensor

Align the large groove on the receptacle with the corresponding large protrusion on the sensor. Push the sensor upward firmly until fully seated, then rotate counterclockwise until a clear click is heard. Ensure the sensor cannot be pulled out to confirm it is securely locked.

3. Install the HAS15 cover

Cut the cover to the required shape before installation. Refer to the last page for cutting examples.

Align the HAS15 cover with the HIR15 series sensor. Press down evenly until a clear sound is heard, indicating the cover is securely fitted.

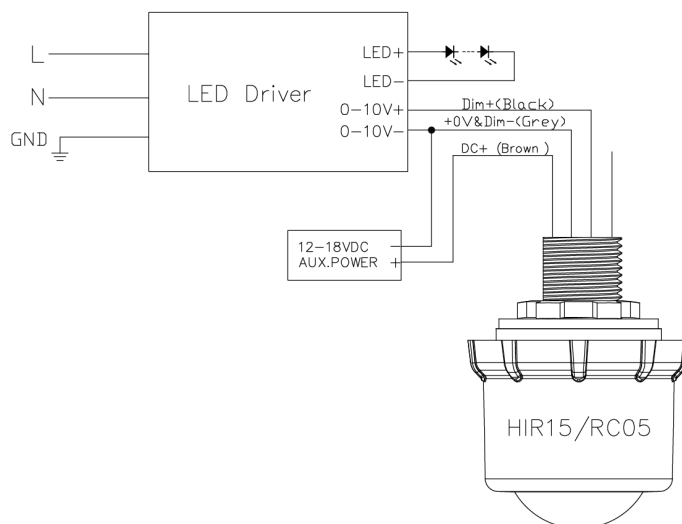
*If you want to remove the cover, locate the release notch on the edge of the cover. Lift gently from the notch to detach the cover.

4. Installation complete

HIR15/RC05

PIR Highbay | 0-10V dimmable | Zhaga Book 18

Wiring Diagram

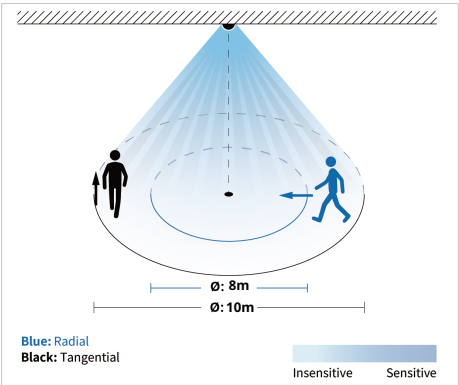


Detection Range

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
 - 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:



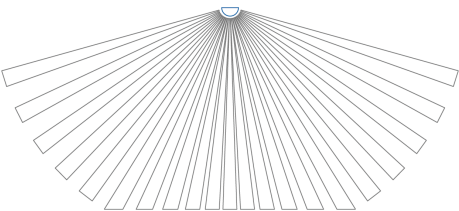
Tangential Movement

H[m]	3	5	8	15
Ø[m]	10	12	16	20

Radial Movement

H[m]	3	5	8	15
Ø[m]	8	8	8	8

Detection schematic diagram



Commissioning Instructions and Precautions

A. Installation Notes

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

B. PIR Application Note

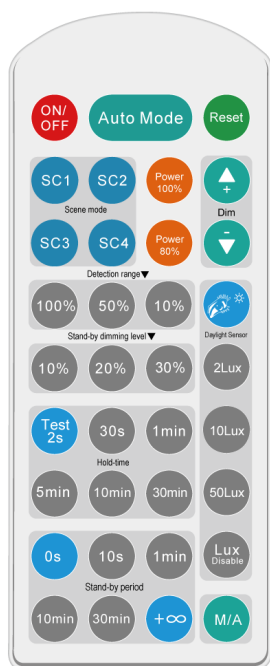
1. PIR sensors operate based on infrared detection and are sensitive to ambient temperature and surrounding heat sources. In outdoor or high-temperature environments (above 50°C), elevated ambient temperature and thermal interference may reduce detection sensitivity and accuracy. For applications exposed to strong sunlight or significant heat sources, it is recommended to evaluate the installation environment carefully and consider selecting a more suitable sensing technology, such as microwave sensors, to ensure stable and reliable operation.

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

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

Commissioning via Remote Control

Settings (Remote Control HRC-05)



	Press the "ON/OFF" button to set the luminaire to permanent ON mode or permanent OFF mode. Press the "AUTO" or "RESET" button to exit this mode and return to normal sensor operation.
	Press the "AUTO" button to enter automatic sensing mode. The sensor will exit ON/OFF mode and resume automatic operation. All parameters will remain as previously set.
	Press the "RESET" button in any operating state to clear all settings and restore the sensor to factory default settings. The sensor will exit ON/OFF mode. *Factory default settings: Detection range-100%, Hold time-10min, Standby period-10min, Standby dimming level-10%, Daylight sensor-disable.
Scene mode	There are 4 scene modes fixed program built-in the remote control to choose for different applications, • SC1: Detection range:100%, Hold-time:1min, Stand-by period:10min, Stand-by dimming level:10%, Daylight sensor: 2Lux • SC2: Detection range:100%, Hold-time:5min, Stand-by period:10min, Stand-by dimming level:10%, Daylight sensor: 2Lux • SC3: Detection range:100%, Hold-time:10min, Stand-by period:30min, Stand-by dimming level:10%, Daylight sensor: 10Lux • SC4: Detection range:100%, Hold-time:10min, Stand-by period:+∞, Stand-by dimming level:10%, Daylight sensor: 50Lux press buttons of detection range/hold-time/stand-by period/stand-by dimming level/daylight sensor to adjust the settings. The last setting stays in validity.
	Press the buttons in the "Power" area to set the maximum brightness to 80% or 100%. The selected maximum brightness will be stored by the sensor. In OFF mode, pressing this button will immediately turn on the luminaire and set the maximum brightness at the same time.
	press "Dim +" or "Dim -" to adjust the light brightness during hold-time.
Detection range	In AUTO / SEMI-AUTO mode, allows the detection range to be set to 100%, 50%, 10%.
Stand-by Dimming Level	Press the buttons of "stand-by dimming level" to set the stand-by dimming level at 10% / 20% / 30%.
	Press this button, and the sensor will study the surrounding lux level and save it as the new daylight threshold / target lux level for daylight harvesting.
Daylight threshold	Press the buttons of "daylight sensor" to set daylight threshold at 2 lux / 10 lux / 50 lux/ Lux disable. Press the Lux disable, the built-in daylight sensor stops working, and all motion detected could trigger on the lighting fixture, no matter how bright the natural light is.
Hold-time	In AUTO / SEMI-AUTO mode, pressing the buttons in the "Hold-time" area allows the T1 delay time to be set to 2s / 30s / 1min / 5min / 10min / 15min / 20min / 30min. *The 2s setting is only used for test mode. In this mode, the stand-by time and daylight control functions will be disabled. Press RESET or any Hold-time button to exit test mode.
Stand-by time settings	Press the buttons of "stand-by period" to set stand-by period at 0s / 10s / 1min / 10min / 30min / +∞. * "0s" means on/off control; "+∞" means bi-level dimming control, light never switches off when daylight sensor is disabled.
	This product does not have this function.

HIR15/RC05

PIR Highbay | 0-10V dimmable | Zhaga Book 18

Options

Included Accessories



Shielding Accessory-HAS15

Compatible products (for full functionality)



HA18SKT

Receptacle | Zhaga Book 18 Standard | Black Color
www.hytronik.com/product/HA18SKT



HRC-05

Sensor remote controller | Dimming control | White color
www.hytronik.com/product/HRC-05

Functions and Features



0-10V Dimming

0-10V dimming provides an analog control interface that allows luminaires to dim smoothly down to their minimum rated light level. At 0 V, the luminaire remains on at its lowest brightness, as the 0-10V interface does not support switching off via the control signal and requires mains power switching for on/off control. This widely adopted standard ensures stable and consistent dimming performance when used with compatible LED drivers.



IP65 Protection

This product features an IP65-rated enclosure, providing complete protection against dust ingress and low-pressure water jets to ensure reliable operation in demanding indoor and outdoor environments. The robust environmental sealing supports long-term stability and consistent performance in applications such as warehouses, parking areas and industrial facilities.



One-key Commissioning

This feature allows commissioning to be completed with a single key operation on the remote controller. A predefined configuration sequence is executed automatically, enabling quick setup and reducing the time and effort required for on-site adjustments. One-key commissioning simplifies complex procedures and supports efficient, reliable deployment of lighting control systems.



Zhaga Book 18 Standard

This product complies with the Zhaga Book 18 standard, providing a standardised mechanical, electrical and digital interface for indoor and outdoor luminaires, including high-bay and exterior applications. It enables plug-and-play interchangeability of sensor and connectivity modules, ensuring interoperability, future-ready upgrades and reliable operation in demanding installation environments.

Check out for further explanation of features

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

Additional Notes

Shielding accessory (HAS15) detail expiation

Achieve precise adjustment of the detection range, block interference sources (such as moving machines and elevators) to prevent triggering the sensor. the line pattern of the shielding accessory can be freely removed by cutting to achieve a different range of shielding induction, for example, rectangular detection and semi-sphere detection. The portable design also provides an easy installation, which only needs to buckle the shielding accessory onto the lens.

For reference, the next page includes detection pattern and dimensional drawings to support actual installation and application. The detection diagram is based on the following test conditions:

Detection Range Test Conditions:

Single person walking or forklift driving at 5 km/h

Sensor not connected to a driver with soft-on period

Ambient temperature (Ta): 20 °C

Test conducted in a large open indoor area without obstacles affecting PIR performance

Note: Detection range may vary depending on installation angle, temperature, and humidity conditions.

HIR15/RC05

PIR Highbay | 0-10V dimmable | Zhaga Book 18

Additional Diagram

