IP65 PIR Zhaga book 18 Standard Motion Sensor

HIR15/RC05 (High-Bay)

Dimming Control

HYTRONIK®

CE IP65 UKCA

Product Description

HIR15/RC05 is an PIR motion sensor and compatible with the Zhaga book 18 standard. With daylight sensor instance, it achieves dimming control. HIR15/RC05 is also designed with a robust IP65 structure and suitable for high-bay applications as the capacity can be up to 15m installation height, which is ideal for the typical outdoor lamp (such as a streetlight).

Hardware Features

- IP65 design
- Zhaga Book 18 standard
- High-bay (up to 15m height)
- Remote controllable
- 5-year warranty
- Photocell Advance

Technical Specifications

Input & Output Characteristics	
Operating voltage	12-18 VDC (≤10mA)
Stand-by power	<0.2W
Quiescent current	10mA
Output voltage	0-10V
Warming up	30s (Initial power-on)

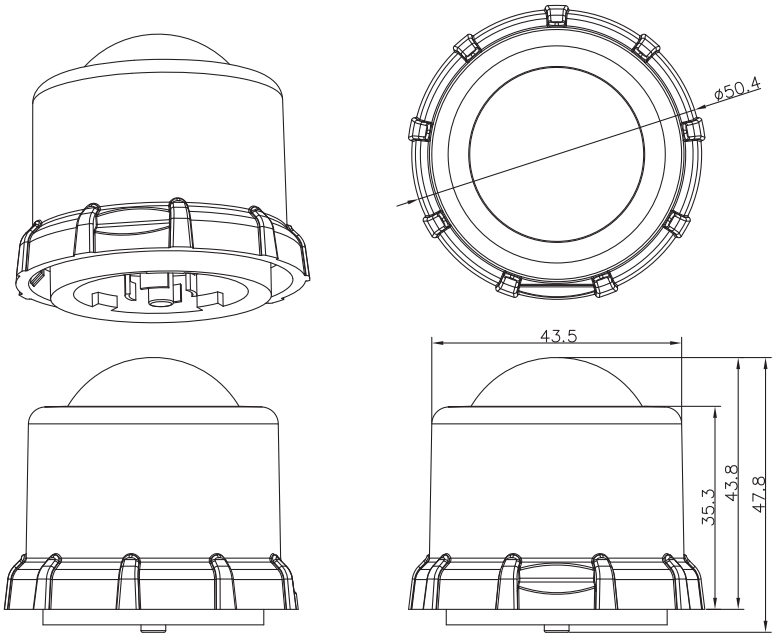
Environment	
Operation temperature	Ta: -25°C ~ +50°C
Storage temperature	-35°C ~ +70°C
Relative humidity	≤90
IP rating	IP65

Sensor Data	
Sensor principle	PIR
Detection range*	Max installation height: 15m Max diameter: 20m
Detection angle	360°

* The detection range is heavily influenced by sensor placement (angle) and different walking paces. It may be reduced under certain conditions.

Safety & EMC	
EMC standard (EMC)	EN61547
Safety standard (LVD)	EN61347-1, EN61347-2-11
Certification	CE , UKCA
Compliance	RoHS Reach

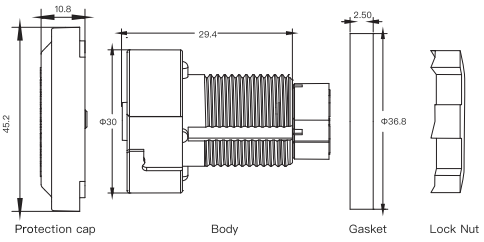
Mechanical Structure & Dimensions



Receptacle Accessory

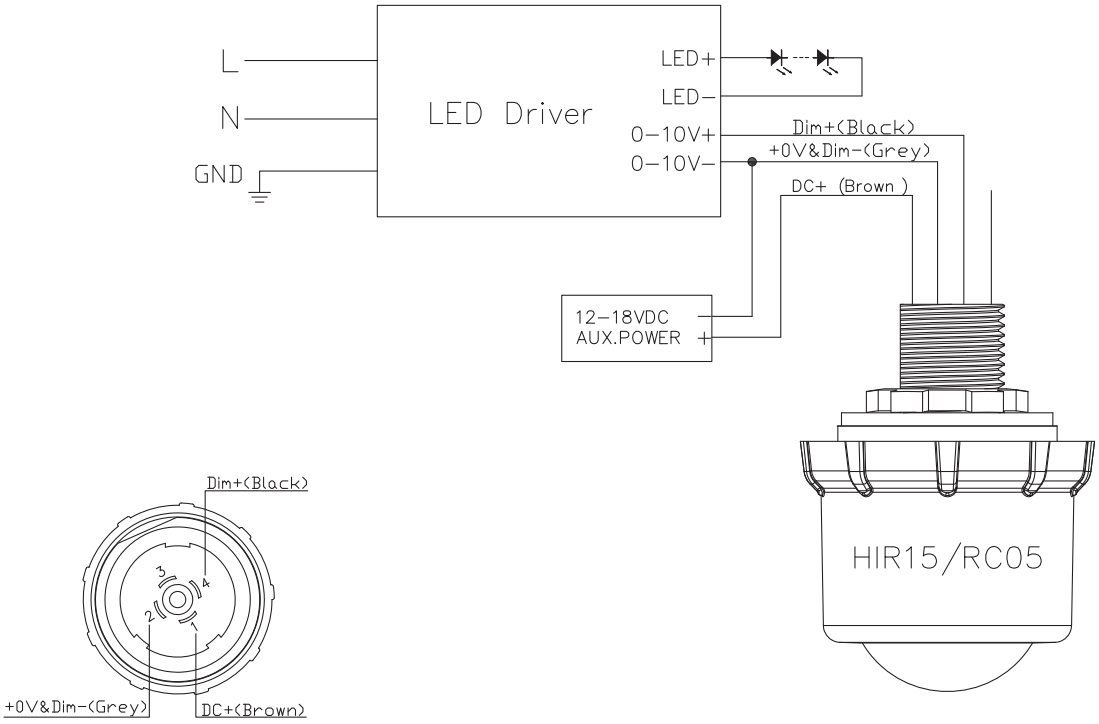
The HA18SKT receptacle is designed to be compatible with the SAM15 and HIR15 series products. It provides a Zhaga Book 18 standard interface, suitable for roadway lighting, area lighting, and occupancy lighting applications.

Mechanical Structure & Dimensions



For more details, please refer to https://hytronik.com/product/ha18skt
Note: HA18SKT not included in the package.

Wiring Diagram

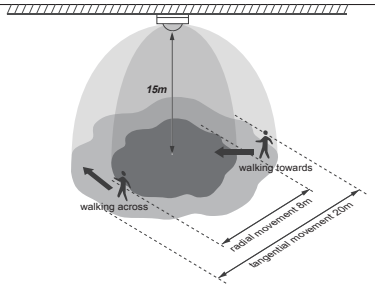


*Terminal block 3 is left unpopulated by default. No wiring required.

Detection Range

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 = 30°C;
- The testing is conducted in an open and spacious indoor field, without noticeable obstacles or influences that may affect PIR performances.



Mount height	Tangential Movement (A)	Radial Movement (B)
3m	max 50m² (Ø = 10m)	max 13m² (Ø = 8m)
5m	max 79m² (Ø = 12m)	max 13m² (Ø = 8m)
8m	max 154m² (Ø = 16m)	max 13m² (Ø = 8m)
15m	max 314m² (Ø = 20m)	max 13m² (Ø = 8m)

Shielding Accessory

HAS15

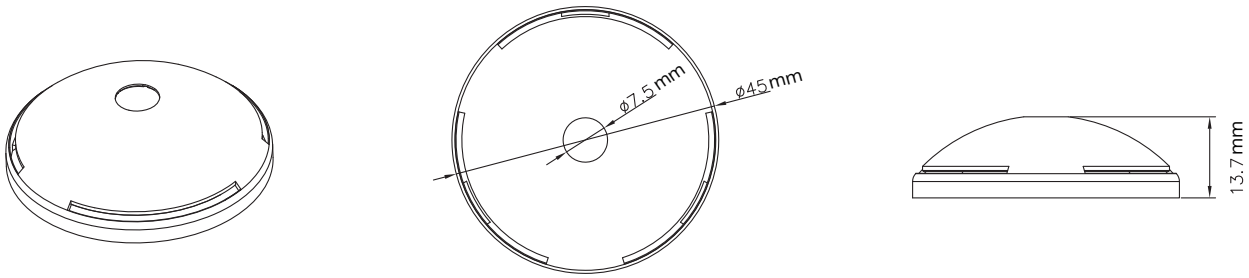
Specifications	
Product weight	1.0 g
Product height	13.7 mm
Product length	45 mm
Product width	45 mm

*Note: HAS15 included in the package.

Product Description

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.

Mechanical Structure & Dimensions



Installation Instruction

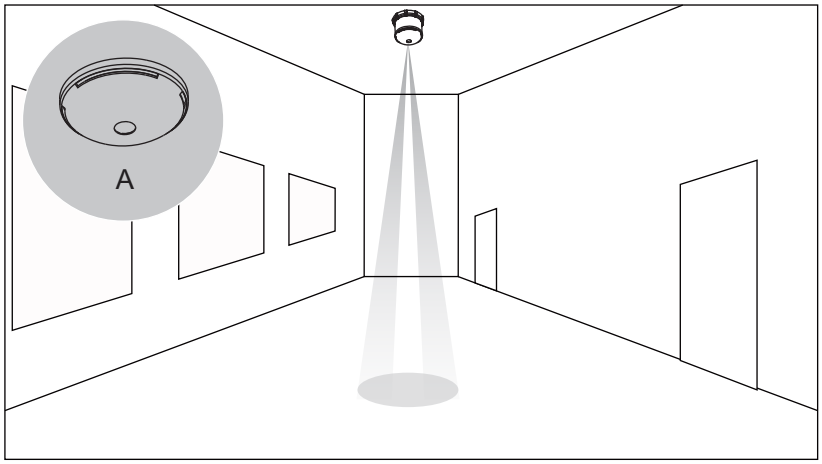
Step 1: Installation

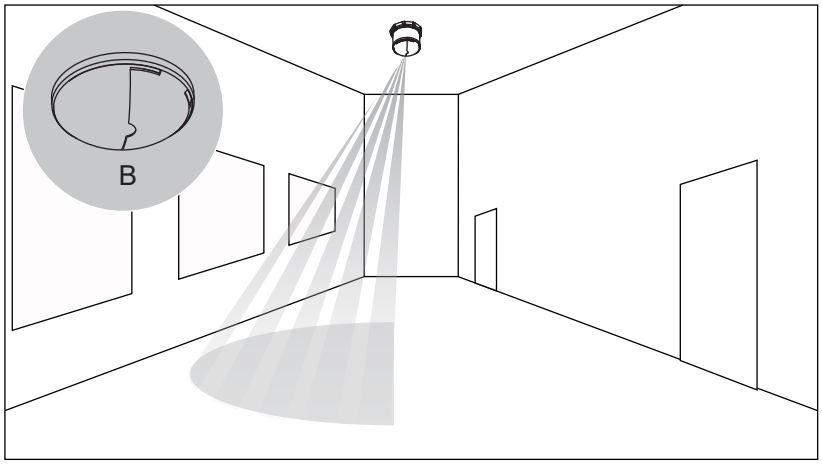
Align the HAS15 cover with the HIR15 series sensor and press down evenly with two fingers. Once an audible sound is heard, the cover is securely installed.

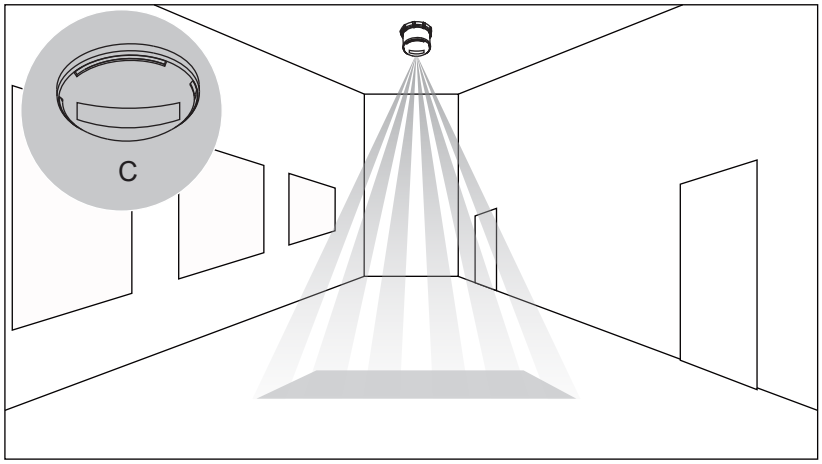
Step 2: Removal

To detach the HAS15 cover, locate the release notch on the edge. Gently lift the cover upward from the notch to remove it.

Picture Application Example







Settings (Remote Control HRC-05)

Permanent ON/OFF function

Press the "ON/OFF" button, the light goes to permanent on or permanent off mode, and the sensor is disabled.
* Press "Auto Mode", "RESET" or "Scene mode" buttons to quit this mode.
The mode will change to AUTO Mode after power failure.

HRC-05

Note: the buzzer beeps one time when RC receives signal successfully.

Sensor mode

Press "Auto Mode" button, the sensor starts to function and all settings remain the same as the latest status before the light is switched on/off.

Reset function

Press "RESET" button, all settings go back to default settings.
Detection range: 100%; Hold-time: 5 min; Stand-by period: 10min;
Stand-by dimming level:20%; Lux disabled.

Dim +/–

Long press "Dim +" or "Dim –" to adjust the light brightness during hold-time. " + " means dimming up, " – " means dimming down.

Test mode

Press "Test 2s" button, the sensor goes to test mode (hold-time is 2s, daylight sensor and dimming control are disabled) . Pressing "Reset" and "Hold-time", or any button of "Scene mode" to end this mode and chang the pertinent sensor settings.

* Press the buttons of "detection range" to set detection range.

Power output

By pressing these two buttons, the output shifts between 80% (at initial 10,000 hours) and 100%, for energy saving purpose.

Lux disable

Press this button, the built-in daylight sensor stops working, and all motion detected could turn on the lighting fixture, no matter how bright the natural light is.

Scene mode

There are 4 scene modes fixed program built in the remote control to choose for different applications:

Scene options	Detection range	Hold-time	Stand-by period	Stand-by dimming level	Daylight sensor
SC1	100%	1min	10min	10%	2Lux
SC2	100%	5min	10min	10%	2Lux
SC3	100%	10min	30min	10%	10Lux
SC4	100%	10min	+∞	10%	50Lux

* End-user can adjust the settings by pressing buttons of detection range/hold-time/stand-by period/stand-by dimming level/daylight sensor. The last setting stays in validity.

Detection range

Press the buttons of "detection range" to set detection range at 10% /50% /100%.

Hold-time

Press the buttons of "hold-time" to set hold-time at 30s / 1min / 5min / 10min / 30min.

Daylight sensor

Press the buttons of "daylight sensor" to set daylight threshold at 2Lux / 10Lux / 50Lux.

Stand-by period (corridor function)

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.

Stand-by dimming level

Press the buttons of "stand-by dimming level" to set the stand-by dimming level at 10% / 20% / 30%.

Additional Information / Documents

1. To learn more about detailed product features/functions, please kindly refer to
   https://hytronik.com/product/hir15-rc05

2. Regarding precautions for PIR Sensors installation and operation, please kindly refer to
   https://hytronik.com/service/downloads (PIR Sensors Precautions for Product Installation and Operation)

3. Data sheet is subject to change without notice. Please always refer to the most recent release on
   https://hytronik.com/products/motion-daylight-sensors

4. Regarding Hytronik standard guarantee policy, please kindly refer to
   https://hytronik.com/service/downloads (Guarantee Conditions document)