

Detached Motion Sensor with  Bluetooth® Mesh

HCD038/CA

Casambi Enabled

**HYTRONIK**®








## Product Description

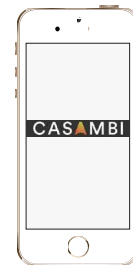
HCD038/CA can work with a wide range of microwave and PIR sensor heads. It is ideal for plastic luminaires as compared to metal luminaires because Bluetooth signal can transmit through plastic. It is suitable for any typical indoor applications such as office, classroom, car park, warehouse and other commercial/industrial areas. HCD038/CA works with CBU-ASD module for either 1-10V or DALI output. Meanwhile, all commissioning and settings can be done via **CASAMBI** app.



## Hardware Features

-  1 push input for flexible manual control
-  Detached linear design to suit luminaires with limited space inside
-  Use Casambi app for commissioning
-  Device firmware update over-the-air
-  5-year warranty

Free smartphone App for set-up and commissioning



## Technical Specifications

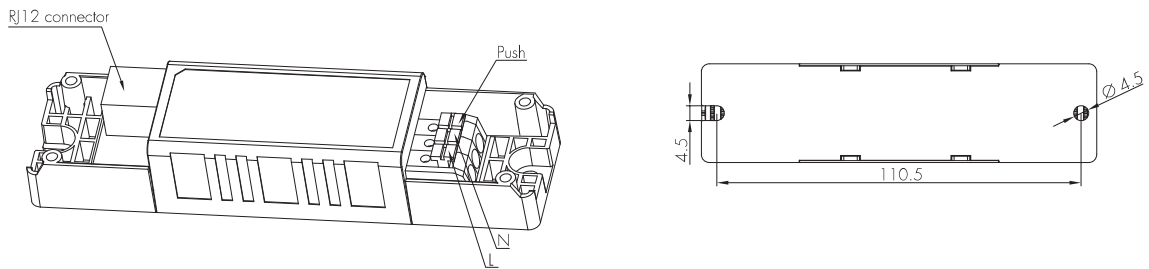
| Bluetooth Transceiver |                     |
|-----------------------|---------------------|
| Operation frequency   | 2.4 GHz - 2.483 GHz |
| Transmission power    | Max 4dBm            |
| Range (Typical)       | 10~30m              |

| Environment             |                                |
|-------------------------|--------------------------------|
| Operation temperature   | T <sub>a</sub> : -20°C ~ +55°C |
| Case temperature (Max.) | T <sub>c</sub> : +75°C         |
| IP rating               | IP20                           |

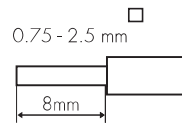
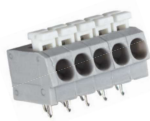
| Input Characteristics |                               |
|-----------------------|-------------------------------|
| Mains voltage         | HCD038/CA: 220~240VAC 50/60Hz |
| Stand-by power        | <0.5W                         |
| Warming-up            | 20s                           |

## Mechanical Structure & Dimensions

HCD038/CA

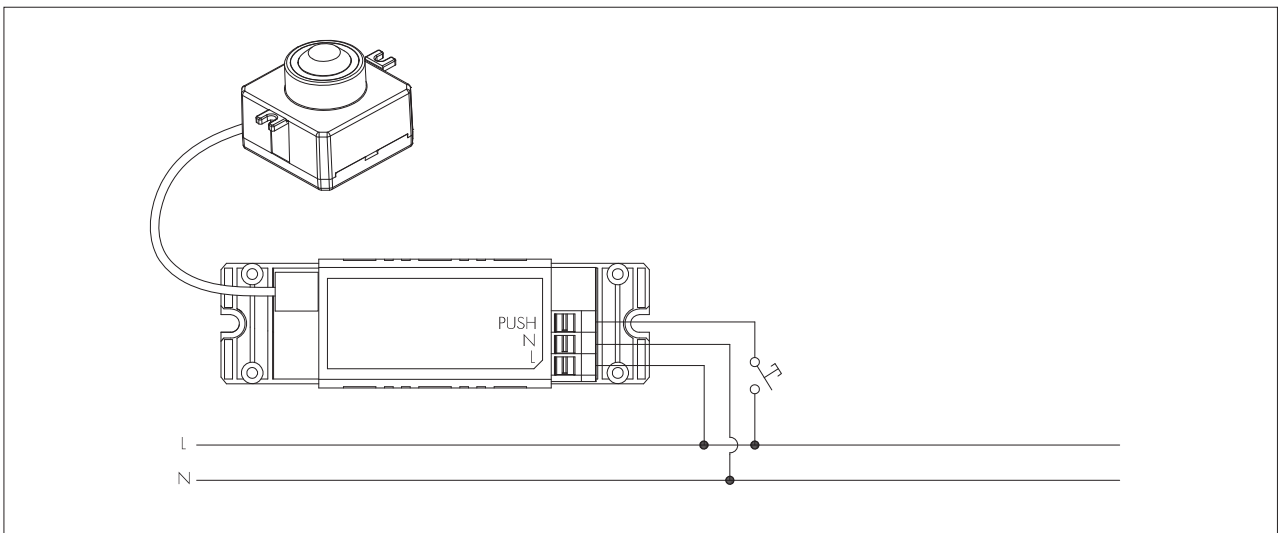


## Wire Preparation



To make or release the wire from the terminal, use a screwdriver to push down the button.

## Wiring Diagram



## Technical Specifications for Sensor Heads

| PIR Sensor Properties |  |
|-----------------------|--|
| Sensor principle      | PIR detection  |
| Operation voltage     | 5VDC   |
| Detection range *     | HIR05 / HIR07 (Ø x H) : 6m x 3m<br>HIR11 (Ø x H) : 16m x 12m<br>HIR12 (L x W x H) : 18m x 6m x 15m |

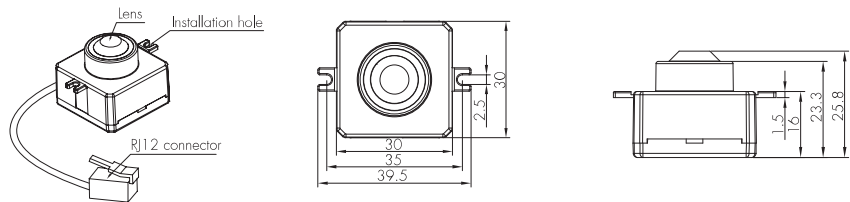
| HF Sensor Properties |  |
|----------------------|--|
| Sensor principle     | High Frequency (microwave)   |
| Operation voltage    | 5VDC   |
| Operation frequency  | 5.8GHz +/- 75MHz   |
| Transmission power   | <0.2mW   |
| Detection range *    | SAM20 / SAM21 / SAM22<br>(Ø x H) : 12m x 3m<br>SAM23 (Ø x H) : 16m x 12m |

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

The range of PIR and microwave sensor heads below offers powerful number of Plug 'n Play feature options to expand the flexibility of luminaire design. This approach to luminaire design reduces space requirements and component costs whilst simplifying production.

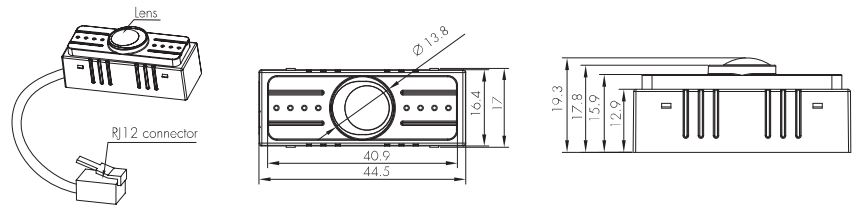
**A. HIR05**

PIR sensor head  
The cable length is around 65cm.



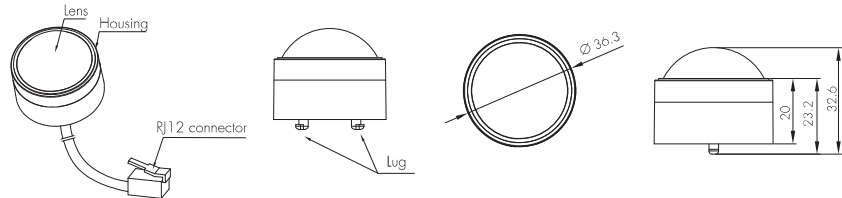
**B. HIR07**

PIR sensor head  
Photocell Advance™  
The cable length is around 30cm.



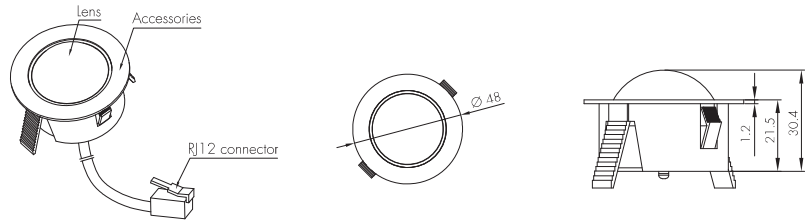
**C. HIR11/S**

PIR sensor head  
Surface mounting  
For highbay application  
Lens part IP42 (IP64 can be made upon request)  
The cable length is around 65cm.



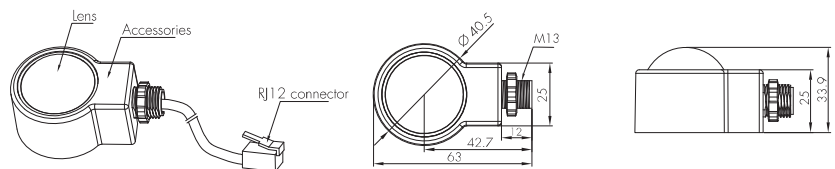
**D. HIR11/F**

PIR sensor head  
Flush mounting  
For highbay application  
Lens part IP42 (IP64 can be made upon request)  
The cable length is around 65cm.



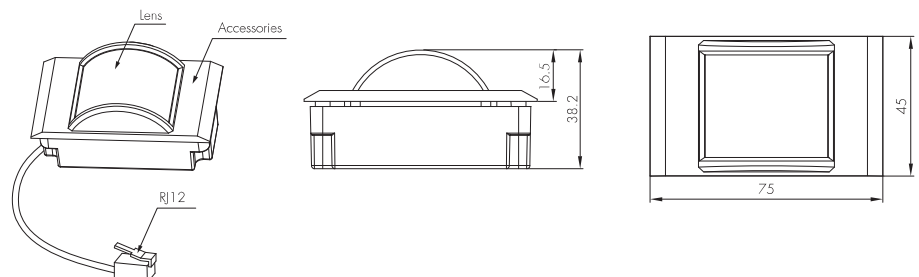
**E. HIR11/C**

PIR sensor head  
Screw to the luminaire by conduit  
For highbay application  
Lens part IP42 (IP64 can be made upon request)  
The cable length is around 65cm.



**F. HIR12**

PIR sensor head  
For highbay application  
IP65(lens part)  
The cable length is around 65cm.



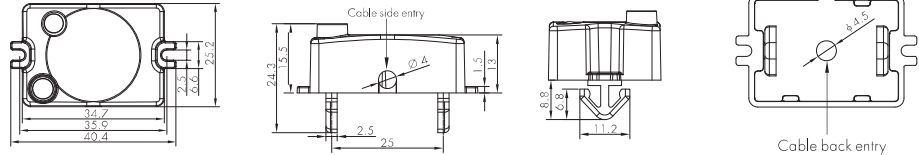
## Installation for HIR12



We suggest that the metal plate thickness to be 0.8mm~1.6mm to ensure perfect focal length for the PIR lens.

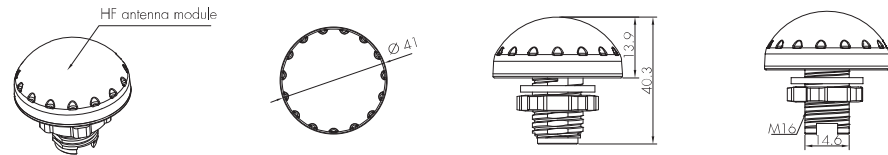
### H. SAM20

HF sensor head  
Photocell Advance™  
The cable length is around 30cm.



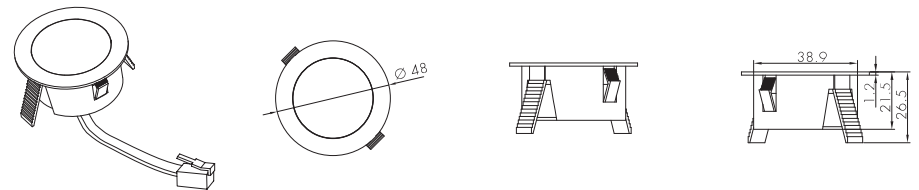
### I. SAM21

HF sensor head  
Photocell Advance™  
IP65  
The cable length is around 65cm.



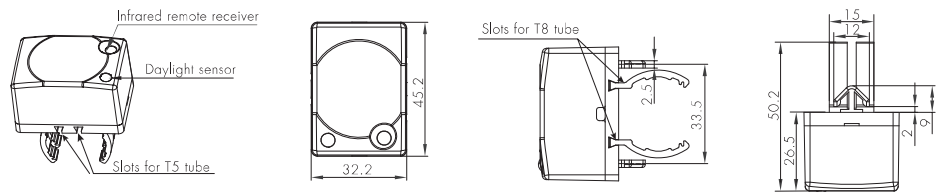
### J. SAM22

HF sensor head  
Flush mount  
The cable length is around 65cm.



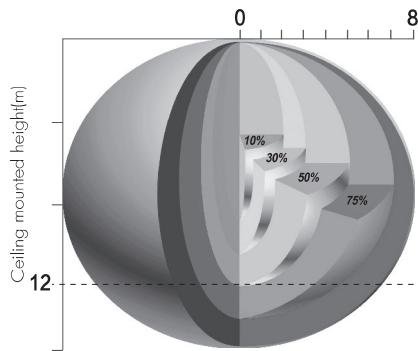
### K. SAM23

HF sensor head  
Photocell advance™  
For highbay application  
The cable length is around 30cm.



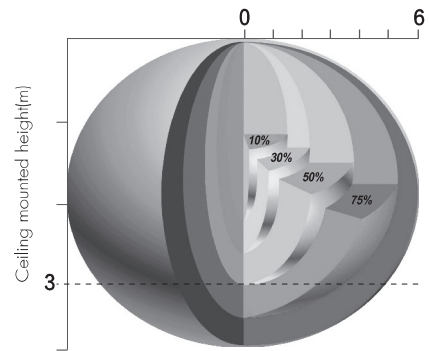
## Detection Pattern

SAM23



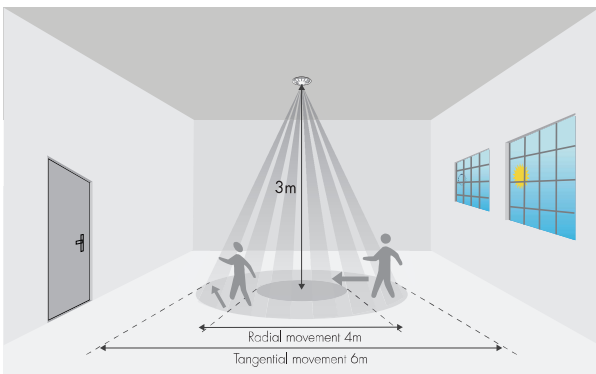
Ceiling mounted detection pattern (m)

SAM20 / SAM21 / SAM22

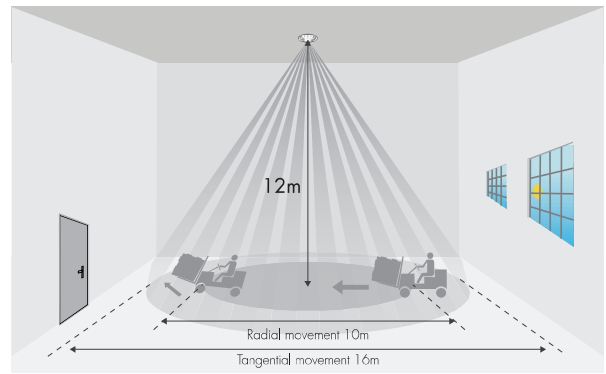


Ceiling mounted detection pattern (m)

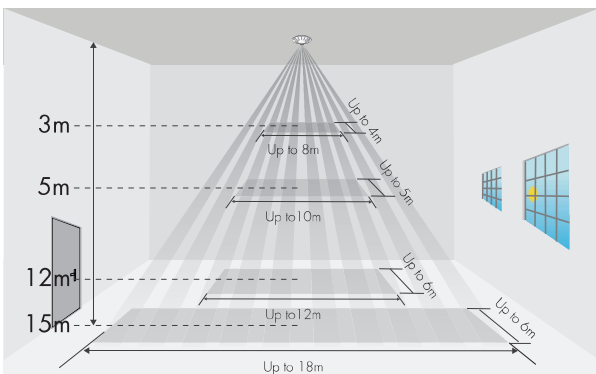
HIRO5 / HIRO7



HIR11



HIR12



## Additional Information / Documents

1. Data sheet is subject to change without notice. Please always refer to the most recent release on [www.hytronik.com/products/bluetooth-technology](http://www.hytronik.com/products/bluetooth-technology) ->Partnership

3. Regarding Hytronik standard guarantee policy, please refer to [www.hytronik.com/download/knowledge](http://www.hytronik.com/download/knowledge) ->Hytronik Standard Guarantee Policy