

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

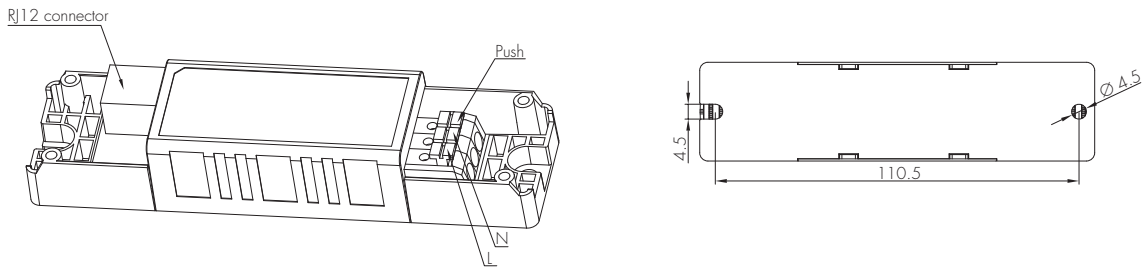
Bluetooth Transceiver	
Operation frequency	2.4 GHz - 2.483 GHz
Transmission power	Max 4dBm
Range (Typical )	10~30m

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

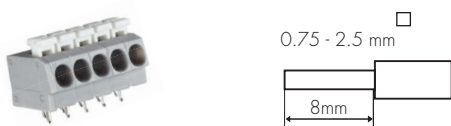
Environment	
Operation temperature	T <sub>a</sub> : -20°C ~ +55°C
Case temperature (Max.)	T <sub>c</sub> : +75°C
IP rating	IP20

## Mechanical Structure & Dimensions

HCD038/CA

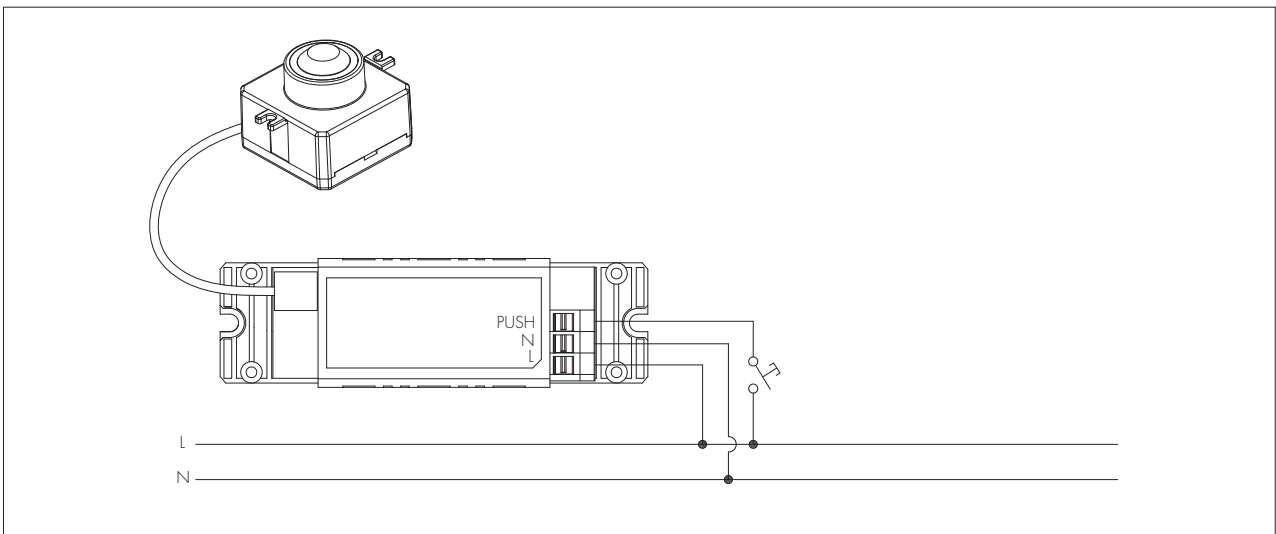


## Wire Preparation



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 *	HIRO5 / HIRO7 (Ø x H) : 6m x 3m HIR11 (Ø x H) : 16m x 12m HIR12 (L x W x H) : 18m x 6m x 15m

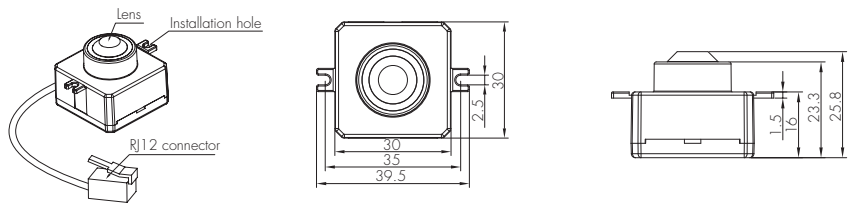
HF Sensor Properties	
Sensor principle	High Frequency (microwave)
Operation voltage	5VDC
Operation frequency	5.8GHz +/- 75MHz
Transmission power	<0.2mW
Detection range *	SAM20 / SAM21 / SAM22 (Ø x H) : 12m x 3m SAM23 (Ø x H) : 16m x 12m

\* 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.

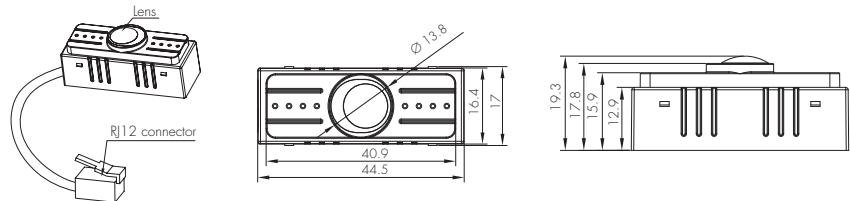
**A. HIR05**

PIR sensor head  
The cable length is around 65cm.



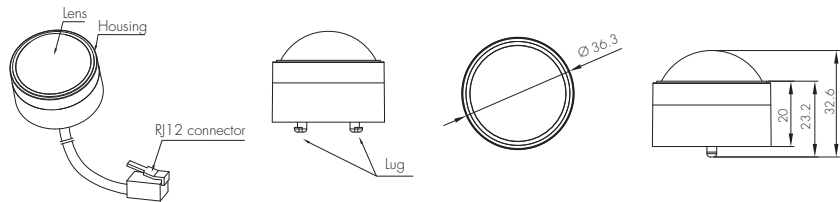
**B. HIR07**

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



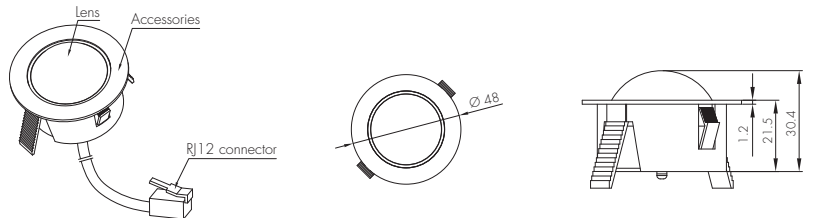
**C. HIR11/S**

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



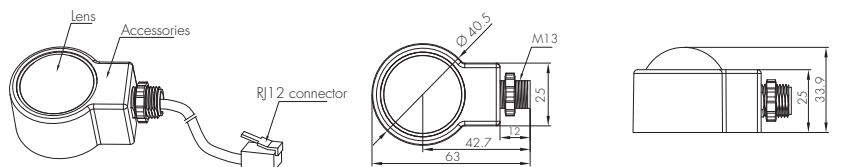
**D. HIR11/F**

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



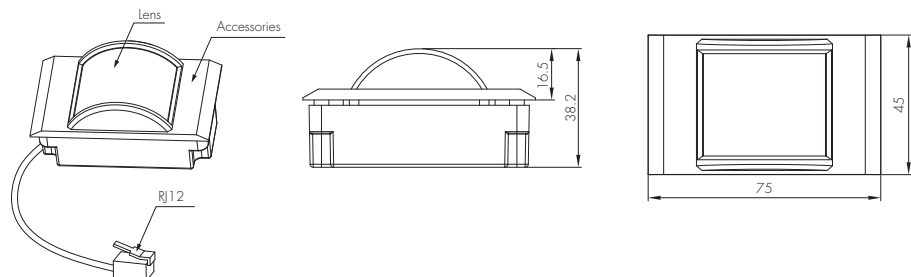
**E. HIR11/C**

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.



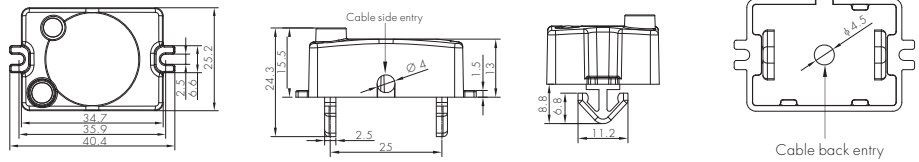
## Installation for HIR12



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

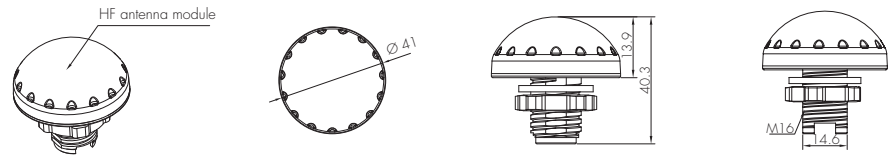
### H. SAM20

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



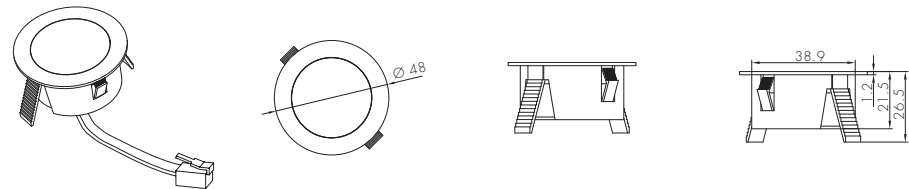
### I. SAM21

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



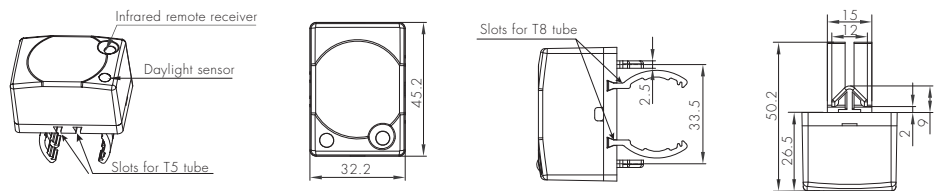
### J. SAM22

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



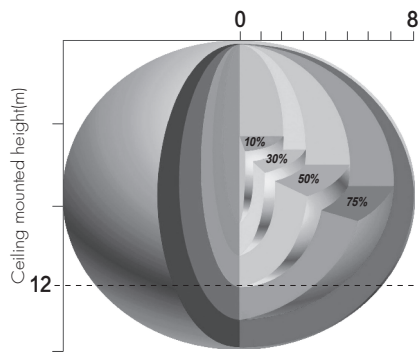
### K. SAM23

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



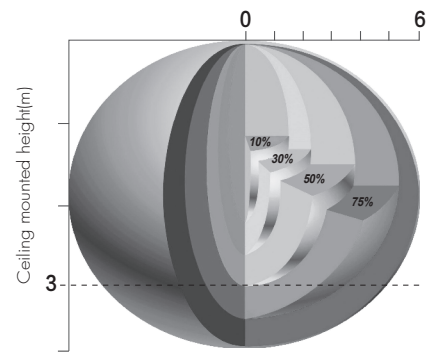
## Detection Pattern

SAM23



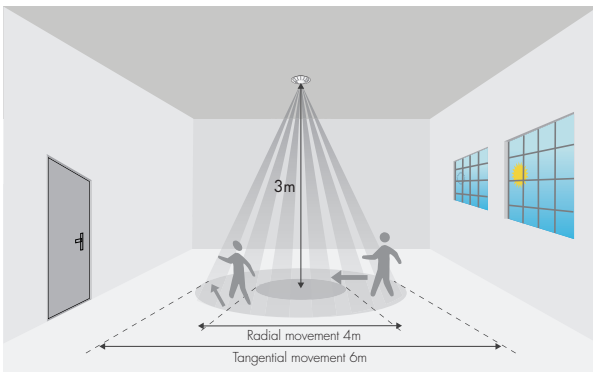
Ceiling mounted detection pattern (m)

SAM20 / SAM21 / SAM22

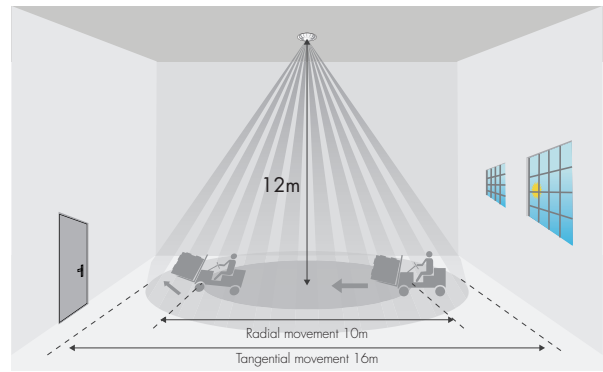


Ceiling mounted detection pattern (m)

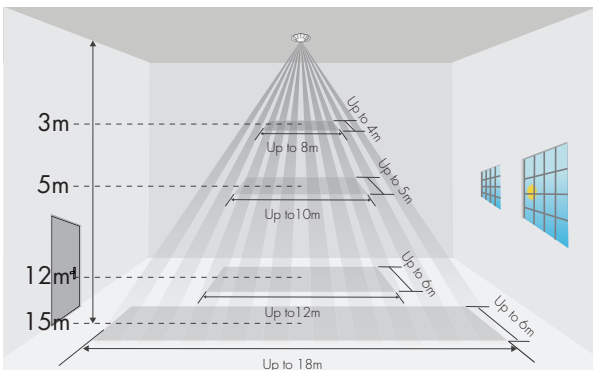
HIRO5 / HIRO7



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