

## FLUSH MOUNT PIR MOTION SENSOR

### HIR28DCVFC

On/Off control with relay output

### 1. Technical Specifications

Input	12-36VDC
Stand-by power	<0.5W
Output (Loading)	24VDC≤5A 250VAC≤5A
Warming-up	10s
Sensor Model	PIR detection
Detection range (Max.)*	Installation Height : 6m HIR28DCVFC Detection Range(0) :9m
Sensitivity	10% / 50% / 75% / 100%
Detection angle	360°
Operation temperature	Ta: -20°C ~ +50°C
IP rating	IP20/IP54

\* For more details of detection range, please refer to "detection pattern" section.

### 2. Functions

#### 2.1 On/ Off Control

This sensor is a motion switch, which turns on the light upon detection of motion, and turns off after a pre-selected hold-time when there is no movement. A daylight sensor is also built in to prevent the light from switching on when there is sufficient natural light.

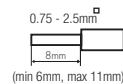
#### 2.2 Intelligent Photocell (daylight detection prior to motion detection)

The built-in photocell will also automatically turn off the light when the ambient natural light exceeds the programmed lux level for more than 5min, regardless of whether motion is detected or not.

#### Wire Preparation

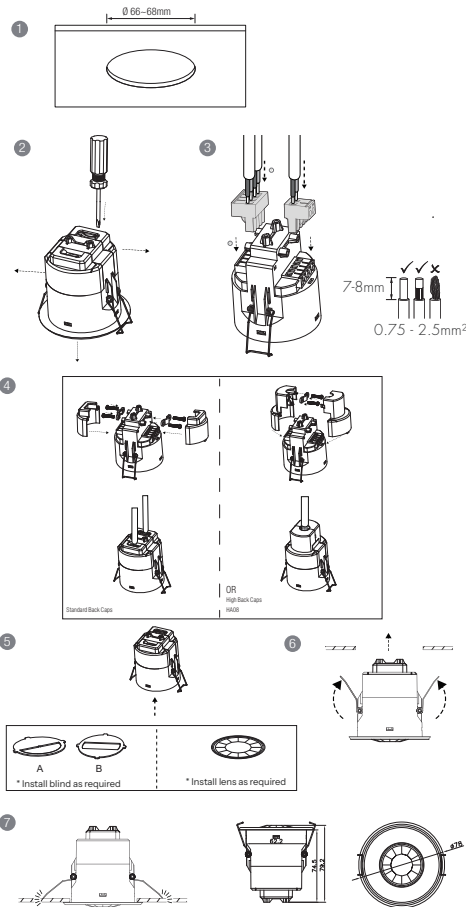


Pluggable screw terminal. It is recommended to make connections to the terminal before fitting to the sensor.



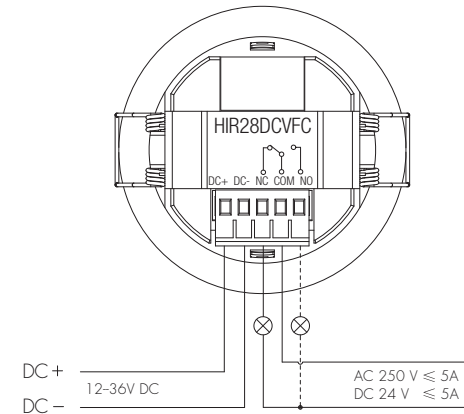
### 3. Installation

Mechanical Structure & Dimensions



1. Ceiling (drill hole  $\varnothing$  66-68mm).
2. Carefully prise off the Back Caps.
3. Make connections to the pluggable terminal blocks.
4. Secure the cables with screws for better stability (provide high back caps HA08 option)
5. Fit detection blind (if required) and desired lens.
6. Fit desired lens, clip fascia to body.
7. Bend back springs and Insert into ceiling.

### 4. Wiring Diagram



—This product should be installed by a qualified electrician.

### 5. Description of the Button Functions (remote control HRC-12)

#### Permanent ON/OFF function

Press button "ON/OFF" to select permanent ON or permanent OFF mode.  
\* Press button "AUTO", "RESET" or "Ambient" to quit this mode.  
The mode will change to AUTO Mode after power failure.

#### Reset Settings

Press button "RESET", all settings go back to default values as below:  
Detection range: 100%; Hold-time: 5min; Lux disabled

#### 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.

#### SEMI-AUTO mode

This button is disabled.

#### Daylight threshold

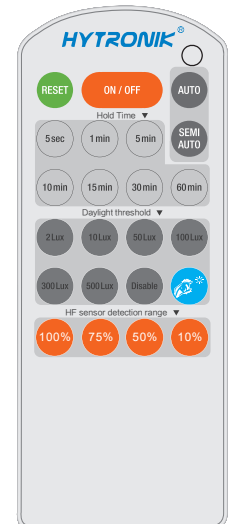
Press buttons in zone "Daylight threshold" to set daylight sensor at 2Lux/ 10Lux / 50Lux / 100Lux / 300Lux / 500Lux / Disable.

#### Ambient daylight threshold

Press button "Ambient", the surrounding lux level is sampled and set as the new daylight threshold.

#### Hold-time

Press buttons in zone "hold-time" to set the hold-time at 5sec / 1min / 5min / 10min / 15min / 30min / 60min.



HRC-12

## 6. Detection Pattern & Optional Accessories

**HIR28DCVFC (Low-bay)**

**HIR28DCVFC:** Low-bay flat lens detection pattern for **single person** @ Ta = 20°C  
(Recommended ceiling mount installation height **2.5m-6m**)

A: Tangential movement

B: Radial movement

Mount height	Tangential (A)	Radial (B)
2.5m	max 50m <sup>2</sup> (Ø = 8m)	max 13m <sup>2</sup> (Ø = 4m)
3m	max 64m <sup>2</sup> (Ø = 9m)	max 13m <sup>2</sup> (Ø = 4m)
4m	max 38m <sup>2</sup> (Ø = 7m)	max 13m <sup>2</sup> (Ø = 4m)
5m	max 38m <sup>2</sup> (Ø = 7m)	max 13m <sup>2</sup> (Ø = 4m)
6m	max 38m <sup>2</sup> (Ø = 7m)	max 13m <sup>2</sup> (Ø = 4m)

Optional Accessory --- Ceiling/Surface Metal Mount Box: HA09/W, HA09/B, HA09/G

Optional Accessory -- HA08

\*Note: Optional Accessory HA09 & HA08 can not be used together.

Optional Accessory --- Blind Insert for Blocking Certain Detection Angles

Blind Option 1 --- Aisle Detection

Blind Option 2 --- 180° Detection

Big and small silicon gasket used to make IP54 degree protection (mounted into HA09 housing for ceiling mount)

Small silicon water-proof gasket dimension(size:mm)

Big silicon water-proof gasket dimension(size:mm)

## 7. Additional Information / Documents

- Regarding precautions for PIR sensor installation and operation, please kindly refer to [www.hytronik.com/download](http://www.hytronik.com/download) ->knowledge ->PIR Sensors - Precautions for Product Installation and Operation
- Regarding Hytronik standard guarantee policy, please refer to [www.hytronik.com/download](http://www.hytronik.com/download) ->knowledge ->Hytronik Standard Guarantee Policy