

FLUSH MOUNT PIR MOTION SENSOR

On/Off control with relay output

HIR28DCVFC

1. Technical Specifications

Input	12-48VDC
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

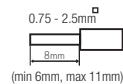
2.1 On/ Off Control

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.

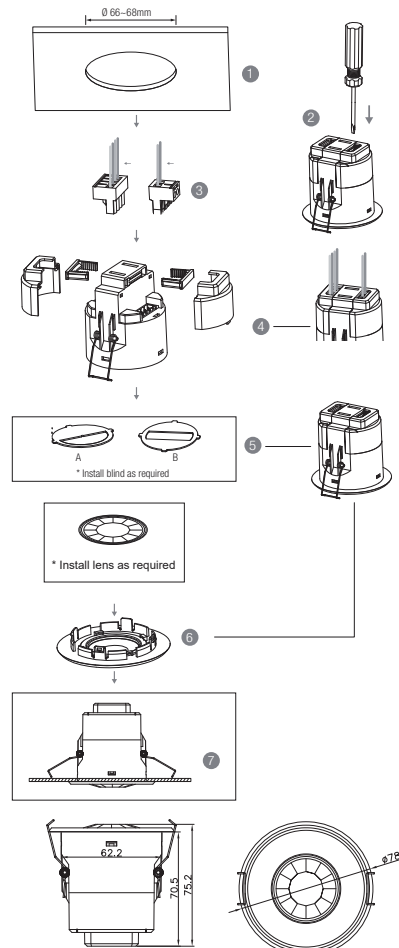
Wire Preparation



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

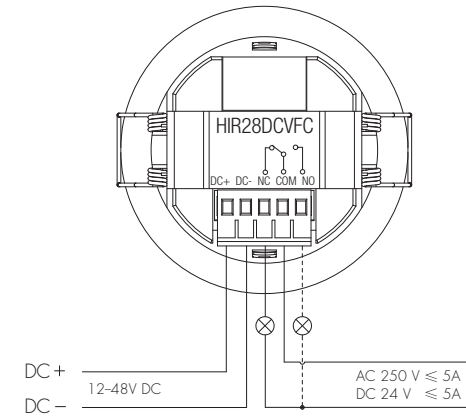
3. Installation

Mechanical Structure & Dimensions



1. Ceiling (drill hole $\phi 66-68\text{mm}$)
2. Carefully prise off the cable clamps.
3. Make connections to the pluggable terminal blocks.
4. Insert plug connectors and secure using the provided cable clamps, then clip terminal covers to the base.
5. Fit detection blind (if required) and desired lens.
6. 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.



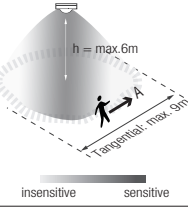
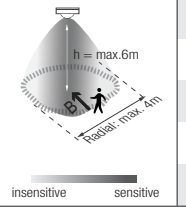
HRC-12

6. Detection Pattern & Optional Accessories

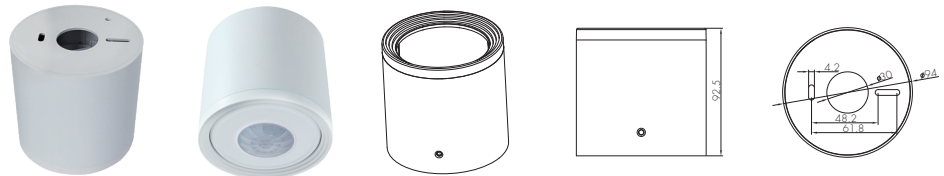
HIR28DCVFC (Low-bay)



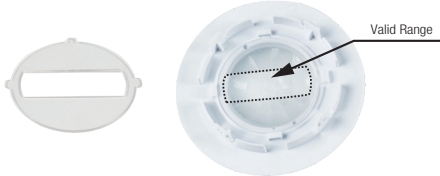
HIR28DCVFC: Low-bay flat lens detection pattern for **single person** @ Ta = 20°C
(Recommended ceiling mount installation height **2.5m-6m**)

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


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



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



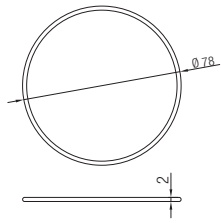
Blind Option 1 --- Aisle Detection



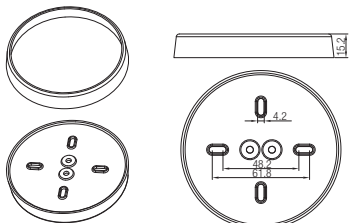
Blind Option 2 --- 180° Detection

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 ->knowledge ->PIR Sensors - Precautions for Product Installation and Operation
- Regarding Hytronik standard guarantee policy, please refer to www.hytronik.com/download ->knowledge ->Hytronik Standard Guarantee Policy