

1. Technical Specifications

Mains voltage	220-240VAC 50/60Hz
Stand-by power	<0.3W
Load ratings:	
Capacitive	800VA
Resistive	800W
Warming-up	20s
Sensor principle	Presence Motion detection
Detection range (Max.)*	Installation Height : 3m Detection Range (Ø) : 10m
Sensitivity	10% / 50% / 75% / 100%
Detection angle	360°
Operation temperature	Ta: -20°C – +50°C
IP rating	IP20

Note:

1. We recommend the mounting distance between sensor to sensor should be more than 2m to prevent sensors from false-triggering.

2. The face-to-face installation between sensors and sensors or other radio sources is not recommended, or false trigger issue will potentially behave. Make sure the installed environment is free of any obvious vibration, strong air blows, curtain swing, water flow in pipe The recommended mounting distance between sensor to sensor is >3m to prevent sensors from false-triggering and furtherly adjust per actual environment.

3. Functions

3.1 On/Off Control

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

3.2 Lux Off Function

The built-in photodiode 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.

3.3 Manual Override

With the help of push-switch, this sensor can be over-riden by the end-user to manually switch on/off the light, which makes the product more user-friendly and offers more options to fit some extra-ordinary demands:

* Short Push (<1s): on/off function;

On → Off: the light turns off immediately and cannot be triggered ON by motion until the expiration of pre-set hold-time. After this period, the sensor goes back to normal sensor mode.

Off → On: the light turns on and goes to sensor mode, no matter if ambient Lux level exceeds the daylight threshold or not.

Note: if end-user do not want this manual override function, just leave the "push" terminal unconnected to any wire.

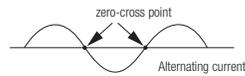
3.4 Semi-auto Mode (Absence Detection)

It is easy to forget to switch off the light, in office, corridor, even at home. And in many other cases, people do not want to have a sensor to switch on the light automatically, for example, when people just quickly pass-by, there is no need to have the light on. The solution is to apply this "absence detector": motion sensor is employed, but only activated on the manual press of the push-switch, the light keeps being ON in the presence, and switches off in the long absence.

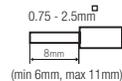
Note: end-user can choose either function 3.3 or function 3.4 for application. Default function is manual override.

3.5 Zero-cross Relay Operation

Designed in the software, sensor switches on/off the load right at the zero-cross point, to ensure that the in-rush current is minimised, enabling the maximum lifetime of the relay.

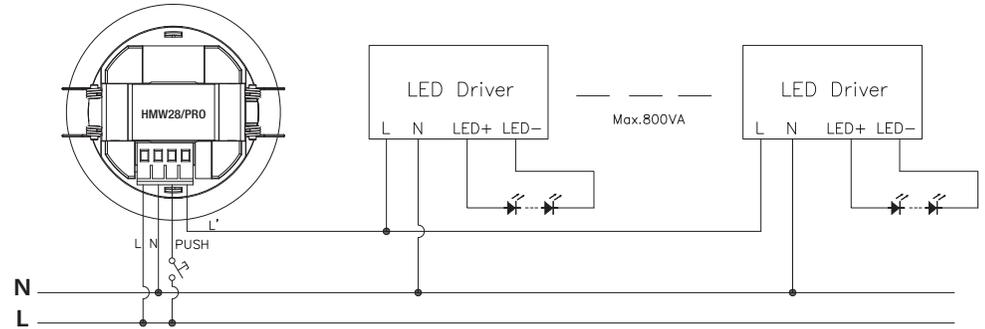


Wire Preparation



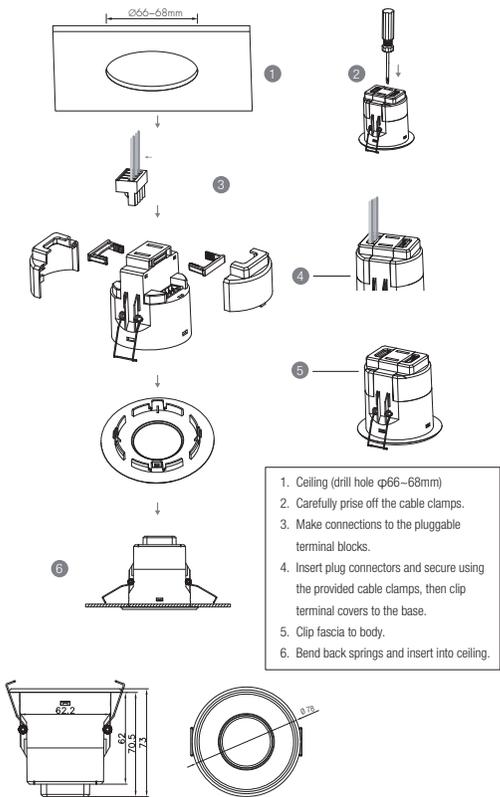
Pluggable screw terminal. It is recommended to make connections to the terminal before fitting to the sensor.

4. Wiring Diagram



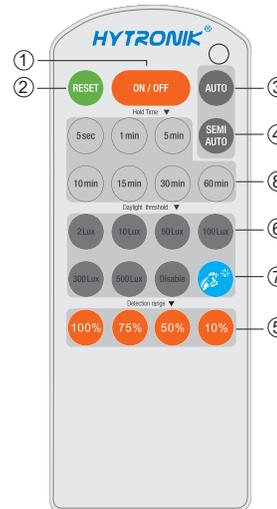
2. Installation

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. Clip fascia to body.
6. Bend back springs and insert into ceiling.

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



HRC-12

Permanent ON/OFF [button ①]

Press button ①, to select permanent ON or permanent OFF mode.
* Press button ②/③ to quit this mode.
The mode will change to AUTO Mode after power failure.

RESET [button ②]

Press button ②, all settings go back to default values as below:
Detection range: 100%; Hold-time: 5min; Lux disabled

Auto Mode [button ③]

Press ③ 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 [button ④]

Press ④ button, to enter semi-auto mode. The fixture is manually on by push-switch and automatically off in this mode.

Detection range [zone ⑤]

Press buttons in zone ⑤ to set detection range at 100% / 75% / 50% / 10%.

Daylight threshold [zone ⑥]

Press buttons in zone ⑥ to set daylight sensor at 2Lux/ 10Lux / 50Lux / 100Lux / 300Lux / 500Lux / Disable.

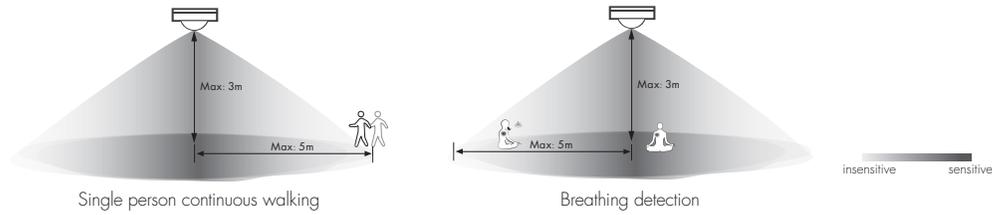
Ambient daylight threshold [button ⑦]

Press ⑦ button, the surrounding lux level is sampled and set as the new daylight threshold.

Hold time [zone ⑧]

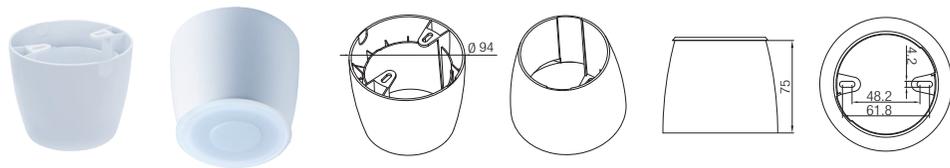
Press buttons in zone ⑧ to set the hold-time at 5sec / 1min / 5min / 10min / 15min / 30min / 60min.
* Press button 30min / 60min, hold time is actually 25min.

6. Detection Pattern & Optional Accessories



When it's in breathing & true presence detection mode and in sitting situation, facing to sensor directly will have a better detection range than 90 degrees side facing to sensor.

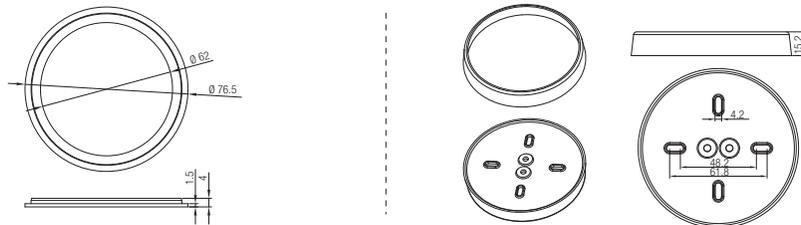
Optional Accessory --- Ceiling/Surface Mount Box: HA03



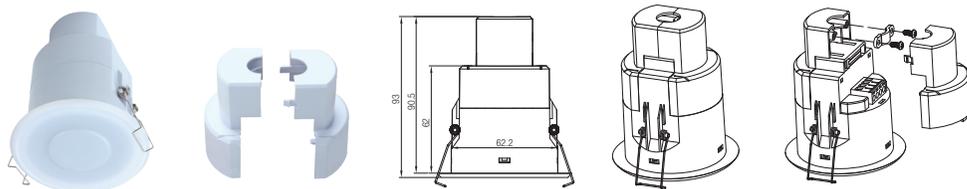
Big and small silicon gasket used to make IP54 degree protection when HMW28/PRO device mounted into HA03 housing for ceiling mount

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

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



Optional Accessory --- HA08



*Note: Optional Accessory HA03 & HA08 can not be used together.

7. Additional Information / Documents

1. Regarding precautions for PIR sensor installation and operation, please kindly refer to www.hytronik.com/download ->knowledge ->Microwave Sensors - Precautions for Product Installation and Operation
2. Regarding Hytronik standard guarantee policy, please refer to www.hytronik.com/download ->knowledge ->Hytronik Standard Guarantee Policy