

Installation and Instruction Manual

Flush Mount Occupancy Motion Sensor

On/off control & Low-bay

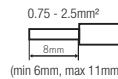
HYTRONIK®

HMW28/PRO

1. Technical Specifications

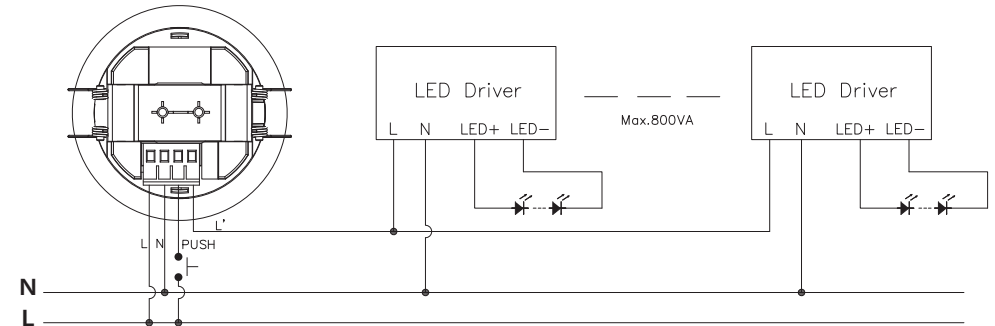
Mains voltage	220~240VAC 50/60Hz
Stand-by power	<0.3W
Load ratings	800VA (Capacitive) 800W (Resistive)
Max withstandable in-rush current	120A@160μs
Warming-up	20s
Sensor principle	Occupancy Motion detection
Ceiling-mounted	Installation Height : 3m
Detection range (Max.)*	Detection Range (Ø) : 8m
Wall-mounted	Installation Height : 3m
Detection range (Max.)*	Detection Range (Ø) : 5m
Sensitivity	10% / 50% / 75% / 100%
Detection angle	360°
Operation temperature	Ta: -20°C ~ +50°C
IP rating	IP20/IP54

2. Wire Preparation



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

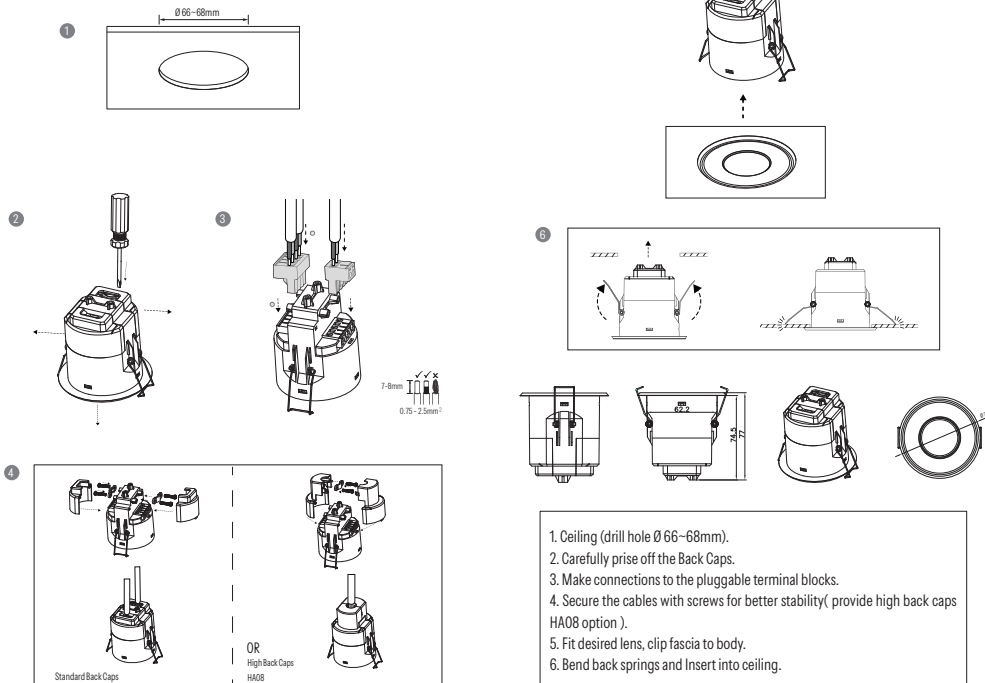
4. Wiring Diagram



--- This product should be installed by a qualified electrician.

3. Installation

Mechanical Structure & Dimensions



1. Ceiling (drill hole Ø 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 desired lens, clip fascia to body.
6. Bend back springs and Insert into ceiling.

5. Sensor Installation and Commissioning Guidelines

A. Installation Preparation

1. Make sure the room is empty with no moving people or machinery when first powered up for 1 minute.
2. There is a 20-second warm-up time for the sensor. Please do the commissioning after warm-up.
3. When the sensor is powered off, repeat the initial steps once it's re-powered.

B. Sensor Placement

1. The distance between sensors should be at least 3 meters.
2. Sensors should not directly face sources of microwave interference, such as other microwave sensors, microwave ovens, or wireless routers. Maintain a distance of at least 3 meters.
3. The installation environment should avoid object vibrations, strong airflows, curtain movements, water flow in pipes, window glass vibrations, and wind-induced movements of metal roofs. Aim for a stable environment with minimal variables.
4. The sensor is highly sensitive and suitable for stable and quiet environments like offices and hotels, but not for industrial settings.

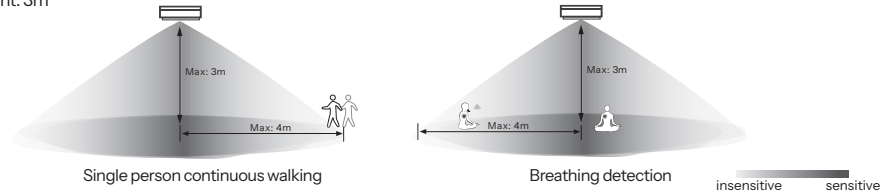
C. Sensor Operation

1. Movements within 0.3 meters of the sensor, such as waving an arm, might not trigger the sensor, as it will identify and filter out such large movements.
2. In test mode, a red LED will flash when the sensor is triggered. There are no visual indications in normal mode.
3. Avoid accidentally entering semi-auto mode.
4. Pay attention to the daylight sensor threshold value, which needs to be adjusted according to the installation environment.

6. Detection Pattern & Optional Accessories

Ceiling-mounted application

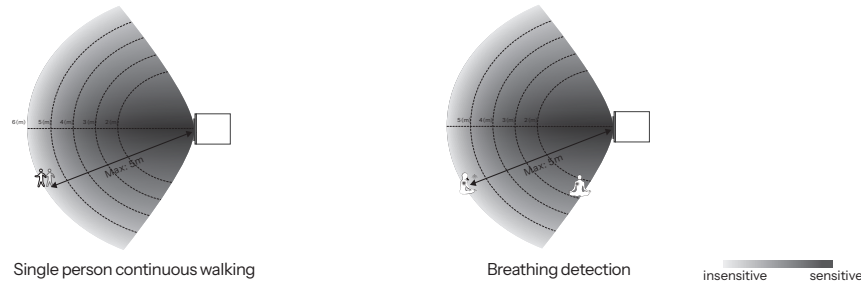
Installation height: 3m



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

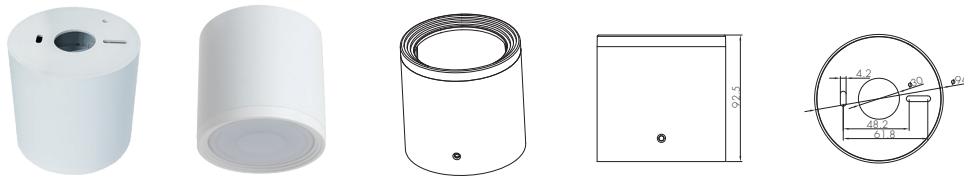
Wall-mounted application

Installation height: max.3m

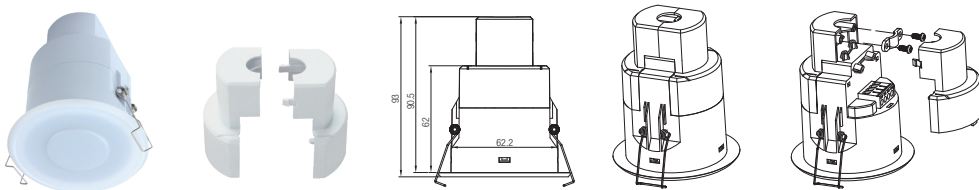


*When it's in breathing & true occupancy detection mode and in sitting situation, facing to sensor directly will have a better detection range than 90 degrees side facing to sensor.

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



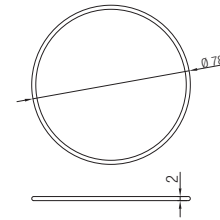
Optional Accessory --- HA08



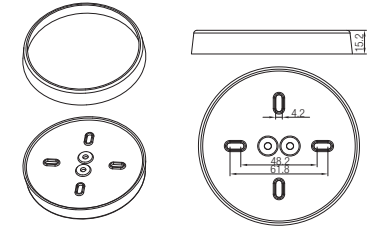
*Note: Optional accessory HA09 & HA08 can not be used together.

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. Description of the Button Functions (remote control 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. To exit this mode, simply press button ④. Semi-auto Mode [button ④] Press ④ button, to enter semi-auto mode, the fixture is manually on by push-switch. To exit this mode, simply press button ③. * "SEMI-AUTO" again.	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.
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HRC-12

8. Additional Information / Documents

- To learn more about detailed product features/functions, please kindly refer to <https://hytronik.com/product/hmw28-pro>
- Regarding precautions for Microwave sensor installation and operation, please kindly refer to <https://hytronik.com/service/downloads> (Microwave Sensors Precautions for Product Installation and Operation)
- Data sheet is subject to change without notice. Please always refer to the most recent release on <https://hytronik.com/products/motion-daylight-sensors>
- Regarding Hytronik standard guarantee policy, please kindly refer to <https://hytronik.com/service/downloads> (Guarantee Conditions document)