IP65 High Bay Motion Sensor

HC503S
0-10V Dimming Control

HYTRONIK ®

Applications

Occupancy detector with 0-10V dimming control.

Suitable for building into the fixture:

- ■ Office / Commercial Lighting
- ■ Industrial Lighting

Ideal for new luminaire designs and project installations

Features

- Super mini compact size
- 1-10V dimming control method
- IP65 design
- 5-Year Warranty

Back Entry   Side Entry

Technical Data

Input & Output Characteristics	
Mains voltage	12VDC
Stand-by power	<0.3W
Load ratings:	
Warming-up	20s

Environment	
Operation temperature	Ta: -20℃ ~ +60℃
IP rating	IP65

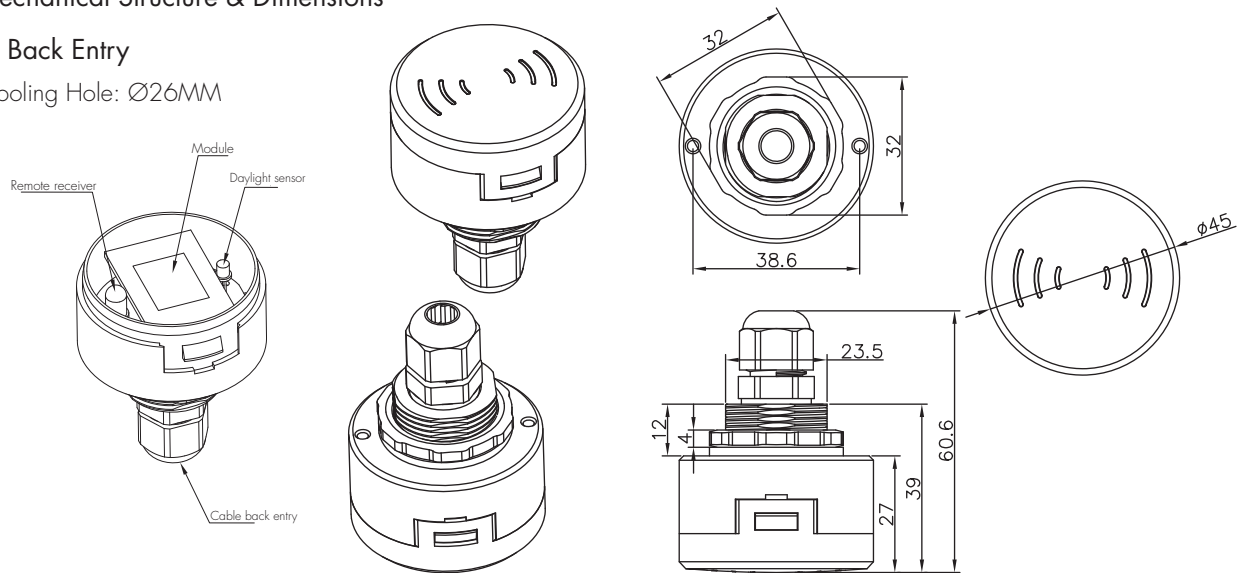| Sensor Data	
Sensor principle	High Frequency (microwave)
Operation frequency	5.8GHz +/- 75MHz
Transmission power	<1mW
Detection range (Max.)*	Installation height: 15m Detection range: Ø 20m @ 8m installation height
Detection angle	30°~ 150°
Setting adjustments:	
Sensitivity	10% / 50% / 100%
Hold-time	2s / 30s / 1min / 5min / 10min / 30min
Stand-by -time	0s / 10s / 1min / 10min / 30min /+∞
Stand-by dim level	10% / 20% / 30%
Daylight threshold	2lux ~ 50lux, disable

* The detection range is heavily influenced by sensor placement (angle) and different walking paces. It may be reduced under certain conditions.
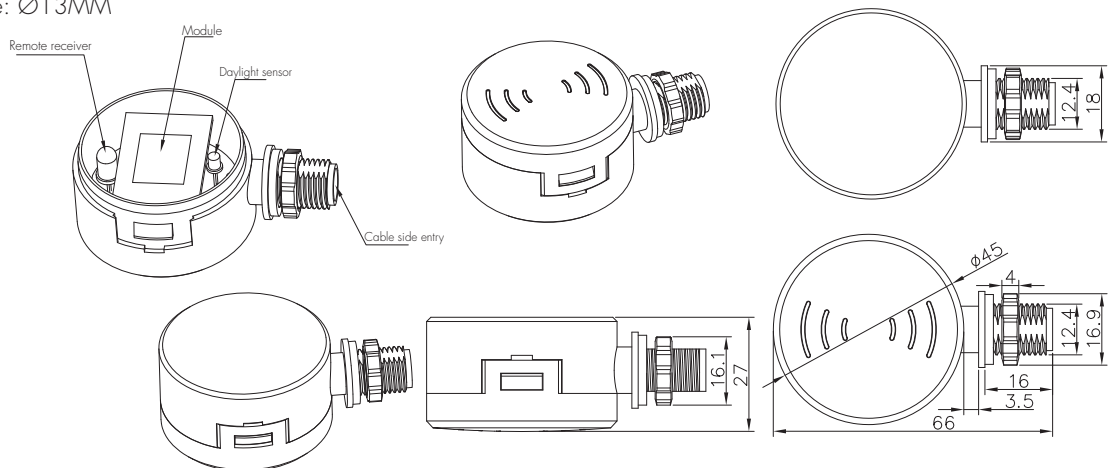
Mechanical Structure & Dimensions

Back Entry
Tooling Hole: Ø26MM

- Remote receiver
- Module
- Daylight sensor
- Cable back entry

32
32
38.6
Ø45
23.5
12
4
60.6
39
27

Side Entry
Tooling Hole: Ø13MM

- Remote receiver
- Module
- Daylight sensor
- Cable side entry

12.4
18
Ø45
4
12.4
16.9
16
3.5
16.1
27
66

Functions and Features

Step-dim function

The motion detector can turn on the light based on movement. With this detector built in, light is automatically on when needed and dimmed to preset level before it is totally off.
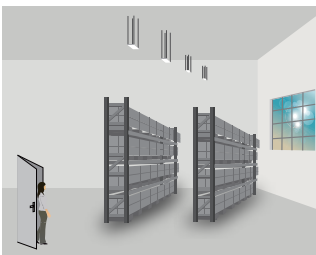
The light keeps off during daytime even when movement is detected. (Ambient lux level is above preset daylight threshold)

With movement and insufficient ambient lux level, the light is triggered on 100% by the detector.
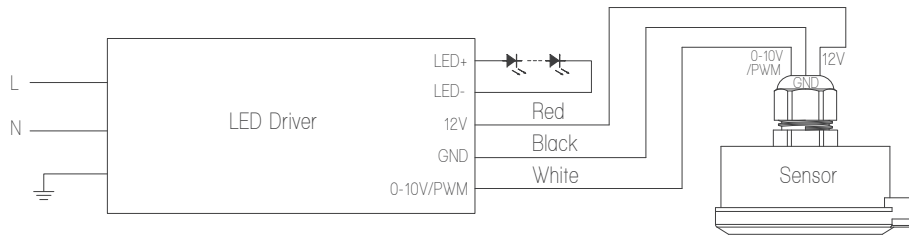
If there is no more movement, the light dims to stand-by dimming level after hold-time.
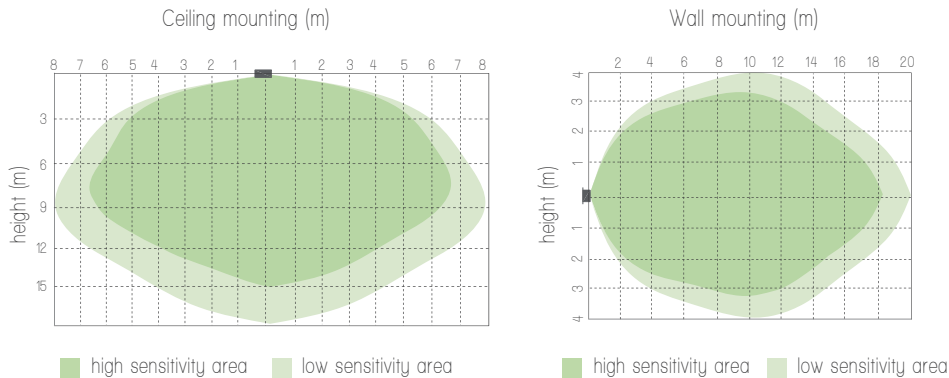
The light turns off automatically after stand-by time.

Wiring Diagram

Detection Pattern

Ceiling mounting (m)

Wall mounting (m)

■ high sensitivity area   ■ low sensitivity area

■ high sensitivity area   ■ low sensitivity area

Settings (Remote Control HRC-05)

ON/OFF Permanent ON/OFF function

Press the "ON/OFF" button, the light goes to permanent on or permanent off mode, and the sensor is disabled.
* Press "Auto Mode", "RESET" or "Scene mode" buttons to quit this mode.
The mode will change to AUTO Mode after power failure.

Auto Mode 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.

RESET Reset function

Press "RESET" button, all settings go back to default settings.
Detection range: 100%; Hold-time: 1min; Stand-by period: 10min;
Stand-by dinmming level:10%; Lux disabled

Dim +/−

Long press "Dim +" or "Dim −" to adjust the light brightness during hold-time. " + " means dimming up, " − " means dimming down.

TEST 2S Test mode

This button is for testing purpose only. The sensor goes to test mode (hold-time is 2s) after commissoning, meanwhile the stand-by period and daylight sensor are disabled.
* This mode can be ended by pressing "reset", or any button of "scene mode" and "hold-time". The sensor settings are changed accordingly.
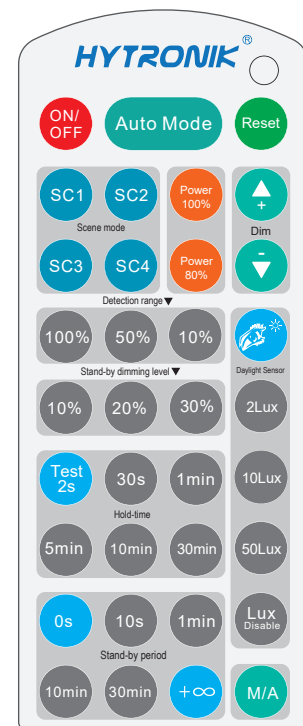
HRC-05

Note: the buzzer beeps one time when RC receives signal successfully.

Subject to change without notice.
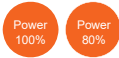
Power output

By pressing these two buttons, the output shifts between 80% (at initial 10,000 hours) and 100%, for energy saving purpose.

Lux disable

Press this button, the built-in daylight sensor stops working, and all motion detected could turn on the lighting fixture, no matter how bright the natural light is.

Scene mode

There are 4 scene modes fixed program built in the remote control to choose for different applications:

Scene options	Detection range	Hold-time	Stand-by period	Stand-by dimming level	Daylight sensor
SC1	100%	1min	10min	10%	2Lux
SC2	100%	5min	10min	10%	2Lux
SC3	100%	10min	30min	10%	10Lux
SC4	100%	10min	+∞	10%	50Lux

* End-user can adjust the settings by pressing buttons of detection range/hold-time/stand-by period/stand-by dimming level/daylight sensor. The last setting stays in validity.

Detection range

Press the buttons of "detection range" to set detection range at 10% /50% /100%.

Hold-time

Press the buttons of "hold-time" to set hold-time at 30s / 1min / 5min / 10min / 30min.

Daylight sensor

Press the buttons of "daylight sensor" to set daylight threshold at 2Lux / 10Lux / 50Lux.

Stand-by period (corridor function)

Press the buttons of "stand-by period" to set stand-by period at 0s / 10s / 1min / 10min / 30min / +∞.
* "0s" means on/off control; "+∞" means bi-level dimming control, light never switches off when daylight sensor is disabled.

Stand-by dimming level

Press the buttons of "stand-by dimming level" to set the stand-by dimming level at 10% / 20% / 30%.

Additional Information / Documents

1. Regarding precautions for microwave sensor installation and operation, please kindly refer to
   www.hytronik.com/download->knowledge ->Microwave Sensors - Precautions for Product Installation and Operation

2. Data sheet is subject to change without notice. Please always refer to the most recent release on
   www.hytronik.com/products/Motion Sensors ->Stand-alone Sensor

3. Regarding Hytronik standard guarantee policy, please refer to
   www.hytronik.com/download->knowledge ->Hytronik Standard Guarantee Policy