IP65 High Bay Dual Sense Sensor

624612 Sensor DUAL RC HYT ON/OFF IP65 HIM30 A-L2 IoT HIM30

Technical Data

Input Characteristics

Model No.	HIM30
Mains voltage	220-240VAC 50/60Hz
Stand-by power	<1W
Load ratings:	800VA (Capacitive) 1000W (Resistive)
Max withstandable in-rush current	120A@160µs
Warming-up	30s

Sensor Data

Model No.	HIM30
Sensor principle	High Frequency (microwave), PIR
Operation frequency	5.8GHz +/- 75MHz (HF)
Transmission power	<0.2mW (HF)
Sensor mode	4 modes: PIR, HF, PIR+HF, PIR/HF
Detection range	Max. (Ø x H) 10m x12m
Detection angle	360°

Safety and EMC

EMC standard (EMC)	EN55015, EN61000
Safety standard (LVD)	EN60669, AS/NZS60669
Radio Equipment (RED)	EN300440, EN301489-1, EN62479
Certification	Semko, CB, CE , EMC, RED

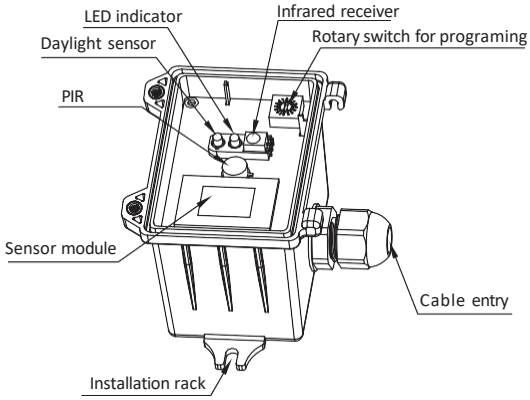
Environment

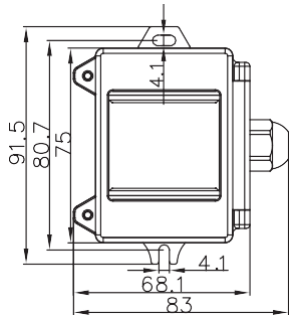
Operation temperature	Ta: -20°C ~ +50°C
IP rating	IP65

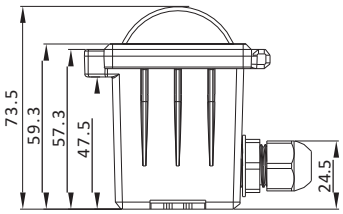
Mechanical Structures and Installations

For more details, please refer to user manual.

A. Ceiling mount (HIM30A)







Dual Sense Introduction

It's commonly known Microwave and Infrared are main detecting technologies in lighting controls. Both have the advantage and disadvantage for industrial applications.

Advantage

* sensitive to minor motion.
* sensitive to radial movement.
* can be reflected by objects hence covering big detection area
* resilient to heat source, smoke and and air conditioner.

Disadvantage

* penetrates walls, picks up motions outside of the office area;
* back wave detection, false trigger by motions at the back.
* can be false triggered by ventilation fans, water pipe, elevators etc. in industrial application.

Advantage

* no penetration, confined detection area.
* sensitive to tangential movement.
* resilient to motion object which has no heat radiation.

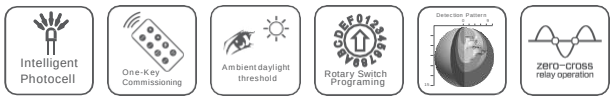
Disadvantage

* can be false triggered by air conditioner, smoke and other heat sources.

The remedy is to create Dual Sense by combining both technologies to make use of the advantage and bypass the disadvantage.

4 optional detection modes via remote control:

* HF: Microwave only
* PIR: PIR mode only
* HF+PIR: both PIR and microwave mode, to decrease the detection capability and detection area. Only when both detections are activated, the motion is considered valid. This is to prevent the sensor from false trigger by heat source, air conditioner, ventilation fans, water pipe and elevators etc...
* HF/PIR: either PIR or microwave mode, to increase the detection capability and detection area;

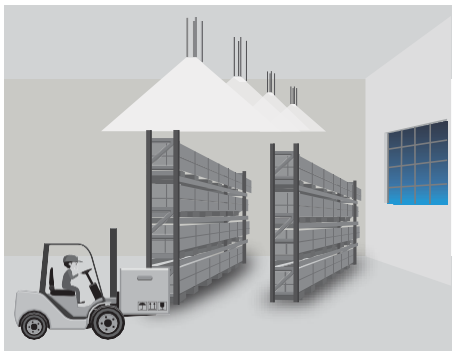


Functions and Features

1 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.

With sufficient natural light, the light does not switch on when presence is detected.



With insufficient natural light, the sensor switches on the light automatically when presence is detected.

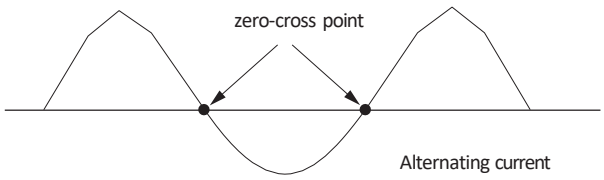
The sensor switches off the light when natural light is sufficient, even with presence.

2 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.

3 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.



Rotary Switch Preset

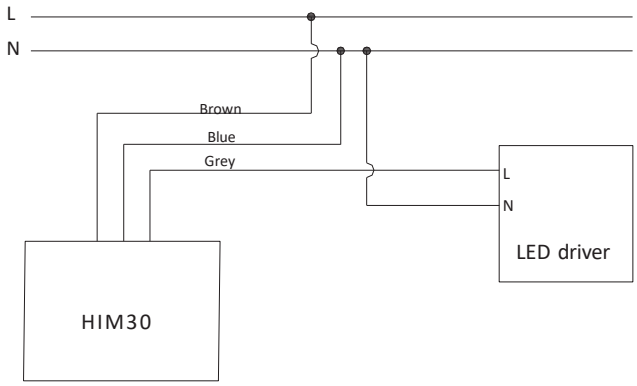
A rotary switch is built inside the sensor for scene selection / fast programming. Total 16 channels are available:

Rotary switch preset

Note: settings can also be changed by remote control HRC-11. The last action controls.

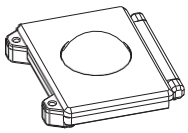
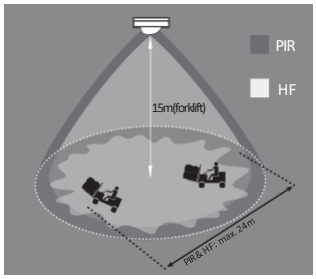
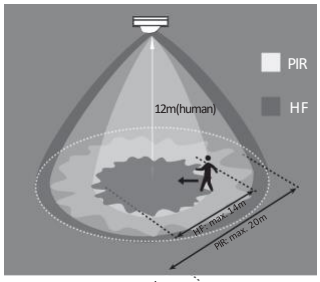
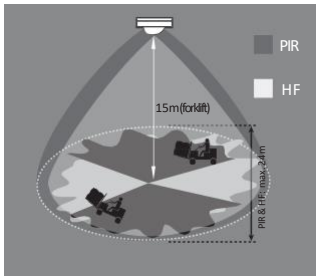
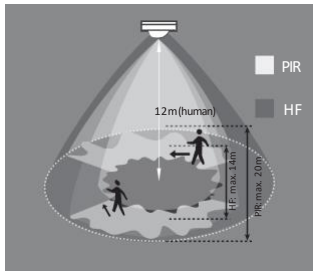
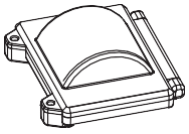
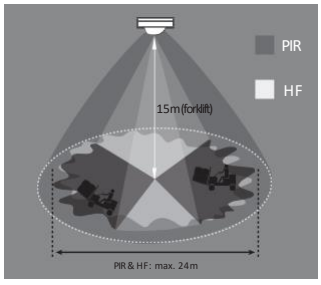
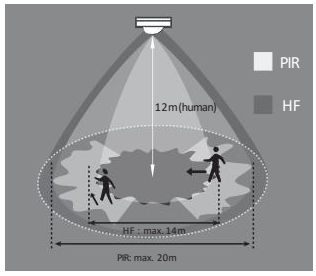
Channel	Detection range	Hold-time	Daylight sensor
0	100%	5s	Disable
1	100%	1min	2Lux
2	100%	5min	10Lux
3	100%	5min	30Lux
4	100%	5min	10Lux
5	100%	5min	30Lux
6	100%	5min	Disable
7	100%	10min	2Lux
8	100%	10min	10Lux
9	100%	10min	30Lux
A	100%	10min	Disable
B	75%	10min	30Lux
C	50%	10min	10Lux
D	100%	30min	50Lux
E	100%	30min	Disable
F	100%	5s	2Lux

Wiring Diagram



Detection Pattern

End user can choose the suitable PIR lens in real application to fulfill various requirements. Three options are offered for selection:

		Detection pattern for forklift	Detection pattern for human
L1		 PIR detection: Ø = 24m (max.) HF detection: Ø = 24m (max.)	 HF detection: Ø = 14m (max.) PIR detection: Ø = 20m (max.)
L2		 PIR detection: Ø = 24m (max.) HF detection: Ø = 24m (max.)	 HF detection: Ø = 14m (max.) PIR detection: Ø = 20m (max.)
L3		 PIR detection: Ø = 24m (max.) HF detection: Ø = 24m (max.)	 HF detection: Ø = 14m (max.) PIR detection: Ø = 20m (max.)

For more information, contact iot@lenalighting.pl