

Technical Data

Input Characteristics

Model No.	HIM34
Mains voltage	220~240VAC 50/60Hz
Stand-by power	< 1 W
Switched power	Max. 20pcs devices, 40mA
Warming-up	30s

Safety and EMC

EMC standard (EMC)	EN55015, EN61000-3-2/-3-3
Safety standard (LVD)	EN60669-1/-2-1, AS/NZS60669-1/-2-1
Radio Equipment (RED)	EN300440, EN301489-1-3, EN62479
Certification	CE , UKCA

Sensor Data

Model No.	HIM34
Sensor principle	High Frequency (microwave), PIR
Operation frequency	5.8GHz +/- 75MHz (HF)
Transmission power	<0.2 m W (HF)
Sensor mode	PIR, HF, PIR+HF, PIR/HF
Detection area (Max.)*	Max installation height: 15m (forklift)/12m (human) Max detection range: HF: Ø = 24m (forklift)/14m (human) PIR: Ø = 24m (forklift)/20m (human)
Detection range	10% / 50% / 75% / 100%
Detection angle	360°

Environment

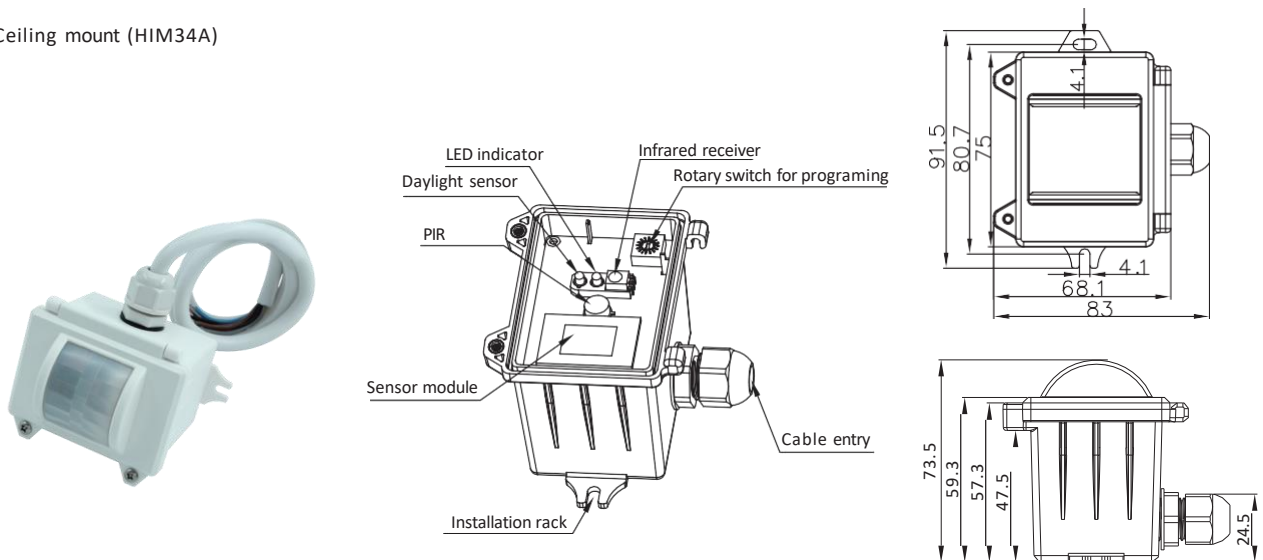
Operation temperature	Ta: -20°C ~ +50°C
IP rating	IP65



Mechanical Structures and Installations

For more details, please refer to user manual.

A. Ceiling mount (HIM34A)



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 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

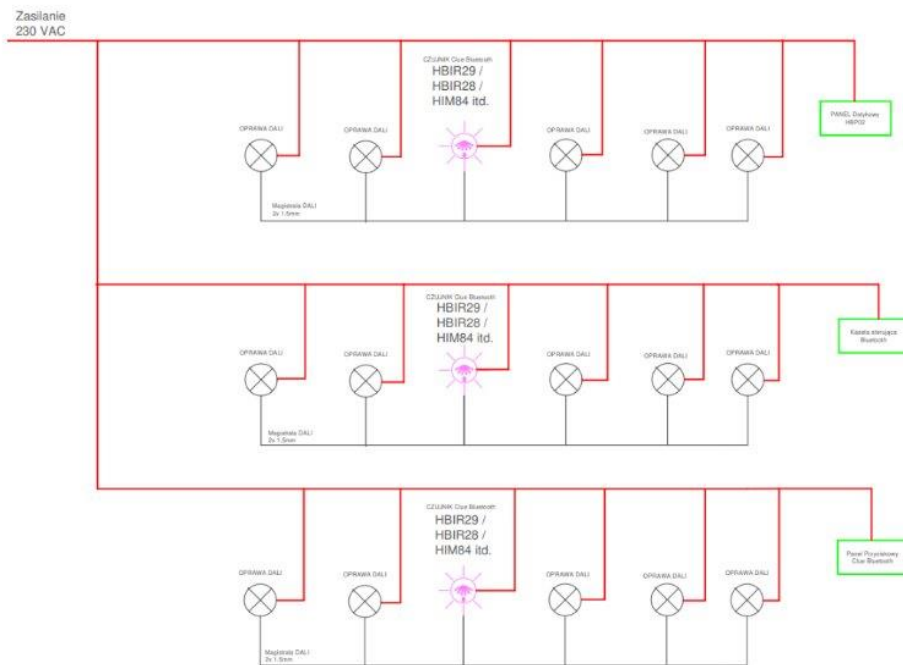
- * can be false triggered by air conditioner, smoke and other heat sources.

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:

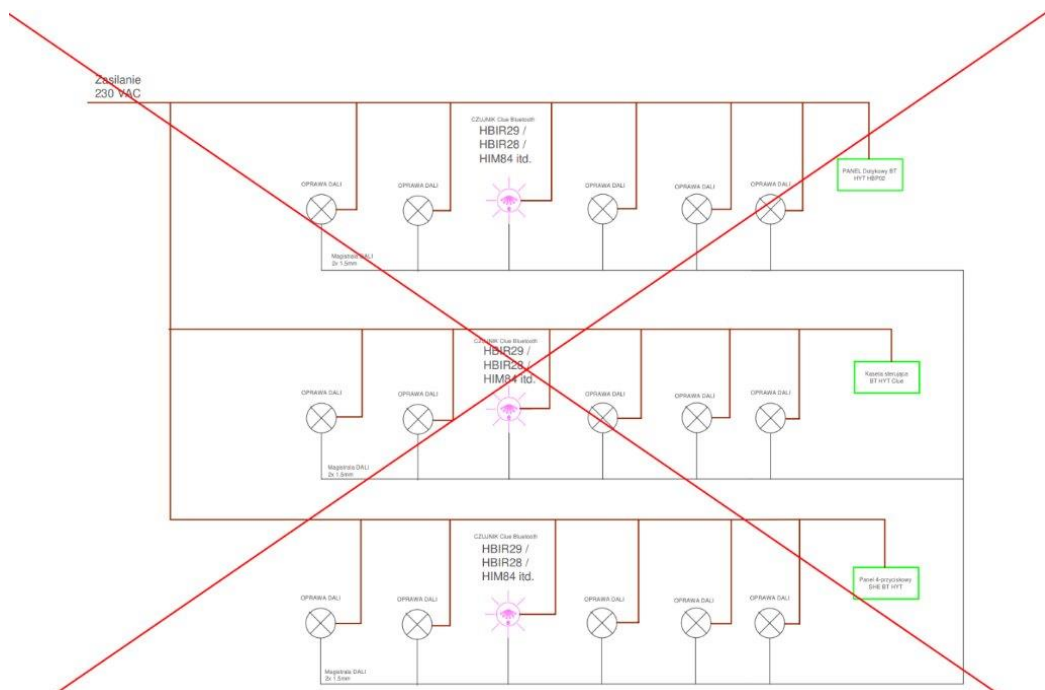
- * HF: Microwave only
- * PIR: PIR mode only
- * HF+PIR: both PIR and microwave mode, to decrease the detection capability and detection area. Only when both detections are activated, the motion is considered valid. This is to prevent the sensor from false trigger by heat source, air conditioner, ventilation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

Wiring – connecting two or more sensors

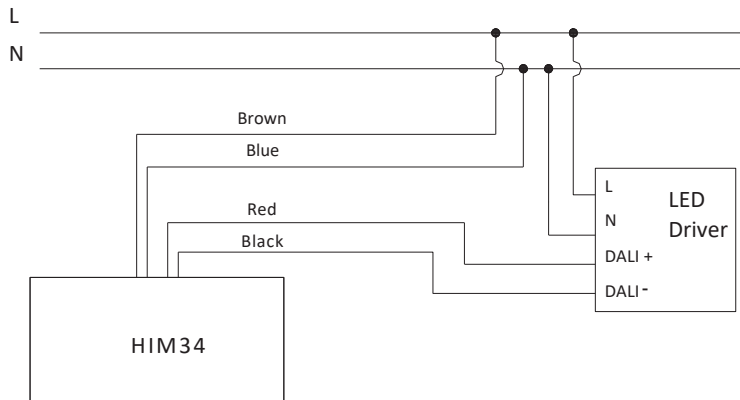


The sensors are powered by a 3x2.5 mm² cable and the DALI bus is connected to the lamps within a given zone as shown in the diagram.

REMARK! Do not connect 2 or more sensors together via the DALI bus – this can lead to incorrect operation or even damage to the sensor.



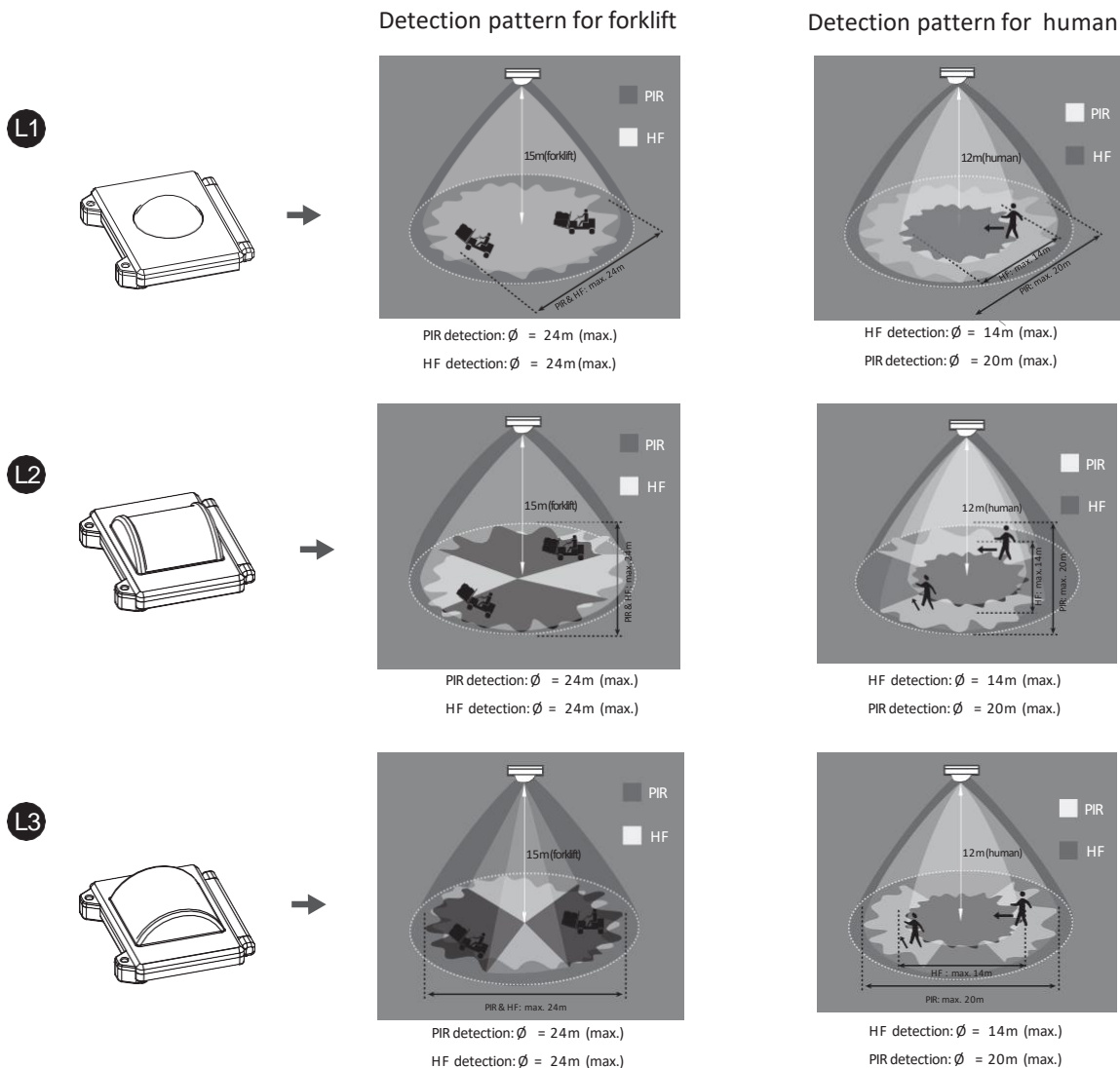
Wiring Diagram



1. 200 metres (total) max. for 1mm (CSA (Ta = 50Š))
2. 300 metres (total) max. for 1.5mm (CSA (Ta = 50Š))

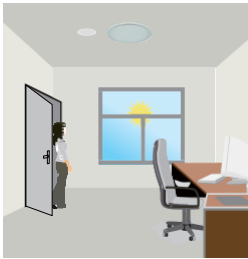
Detection Pattern

End user can choose the suitable PIR lens in real application to fulfill various requirements. Three options are offered for selection: (only 1 lens is in the package, selected lens type should be specified on purchase order!)

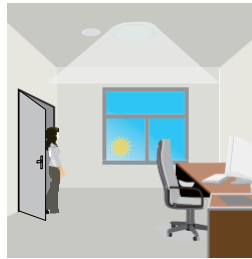


Functions and Features

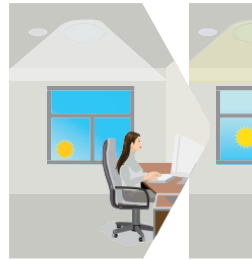
1 Daylight Harvest



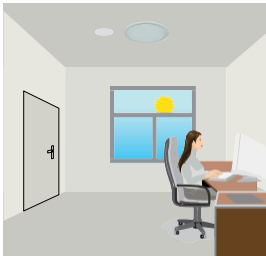
Light will not switch on when natural light is sufficient, even there is motion detected.



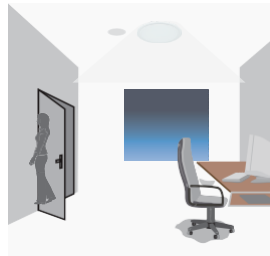
The light switches on automatically with presence when natural light is insufficient.



The light turns on at full or dims to maintain the lux level. The light output regulates according to the level of natural light available.



The light switches off when the ambient natural light is sufficient.



The light dims to stand-by period after hold-time and stays on selected minimum dimming level.



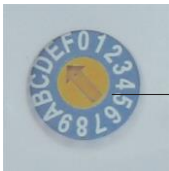
The light switches off completely after the stand-by period.

Note:

The Light automatically dims down and eventually turns off if the natural light lux level exceeds the daylight threshold. However, if the stand-by period is preset at "+∞", the fixture never switches off but dim to minimum level, even the natural light is sufficient.

Rotary Switch Preset

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



Rotary switch preset (Please see the location in 4. Installation)

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

Channel	Detection range	Hold-time	Daylight sensor	Stand-by time	Stand-by dim level
0	100%	5s	10s	10%	Disable
1	100%	1min	5min	10%	50Lux
2	100%	5min	10min	10%	50Lux
3	100%	5min	+∞	10%	75Lux
4	100%	5min	+∞	10%	100Lux
5	100%	5min	+∞	30%	200Lux
6	100%	10min	30min	10%	50Lux
7	100%	10min	+∞	10%	75Lux
8	100%	10min	+∞	10%	100Lux
9	100%	10min	+∞	30%	200Lux
A	100%	20min	1h	10%	100Lux
B	100%	20min	+∞	30%	200Lux
C	100%	30min	+∞	10%	100Lux
D	100%	30min	+∞	30%	200Lux
E	100%	30min	+∞	50%	400Lux
F	100%	5s	10s	10%	100Lux

For more information, contact iot@lenalighting.pl