

# INSTALLATION INSTRUCTIONS



## MICROSENSE IP65 360° Microwave Sensor LHT1176



Thank you for purchasing this Simx Lighting IP65 360° Microwave Sensor.

This sensor is an active motion detector receiving the echo of the high-frequency wavelengths (5.8GHz) it emits, to detect presence and movement.

Care in product placement is critical for correct operation. Detection through doors, glass panes or thin walls, may trigger errant switching. Consider ceiling rigidity, especially mezzanines, as vibration may trigger the sensor. This sensor is rated for exterior exposed locations.

### TECHNICAL SPECIFICATIONS

Power Supply	220-240V AC 50Hz
Max Rated Load	1200W (resistive), 200W (LED)
Transmission Power	<10mW
HF System	5.8Ghz CW radar, ISM band
Detection Angle	360°
Detection	4-20m Diameter (approx.)
Time Setting	10sec – 12min (approx.)
Light Control	10 LUX – Daylight
Power Consumption	<0.9W
Recommended Mounting Height	3 - 5m
Operating Temperature	-10 to +60 degree centigrade
IP Rating	IP65
Impact Rating	IK09
Mounting	Exterior, wet and damp locations, ceiling or wall mount

### ! IMPORTANT

This product is suitable for use only with a supply voltage of 220-240V AC 50Hz.

All electrical work must be carried out in accordance with local and national electrical codes as applicable. We strongly recommend that this sensor is installed by a registered electrician.

Always switch power off prior to installation. A means of mains power isolation must be installed in the circuit for the purpose of safe access for any internal cleaning, recalibration, or maintenance.

This sensor is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety. Young children should be supervised to ensure that they do not play with the appliance.

Any changes or modifications made or attempted to this product, or product installed contrary to these installation instructions without the prior written approval of the manufacturer, will void any and all stated warranties.

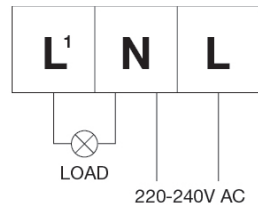
## INSTALLATION

- Switch off the power supply before commencing any electrical work.
- Select the desired mounting location.
- Remove cover with short clockwise twist. Mount to desired location, and mark and drill power entry and mounting holes. Care should be taken to avoid drilling or screwing into concealed wiring/plumbing.
- Feed the power and load cables through ceiling hole.
- Connect the power and load cables to the connection terminal according to the electrical connection. Do not exceed the max rated load.
- Secure the sensor to the ceiling firmly. This microwave sensor cannot detect through most metal surfaces. Ensure cable entry is sealed to IP65.

## ELECTRICAL CONNECTION

Do not switch different lamps on same circuit  
i.e. LED & Fluoro combined.

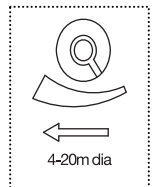
Wiring Diagram



## CALIBRATION SETTINGS

### Detection Setting (Sensitivity)

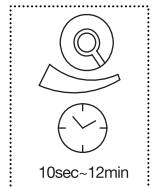
After mounting the sensor light at a height of 2.5m, turn the reach control completely in anti-clockwise direction to select minimum reach (approx. 4m diameter), and turn the reach control completely in a clockwise direction to select the maximum reach (approx. 20m diameter).



### Time Setting

The light can be set to stay ON for any period of time between approx. 10sec (dial turned fully anti-clockwise) and a maximum of 12min (dial turned fully clockwise). Any movement detected during the "on" time will reset the timer.

**NOTE:** After the light switches Off, it takes approx. 1sec before it is able to start detecting movement again. The light will only switch on in response to movement once this period has elapsed.



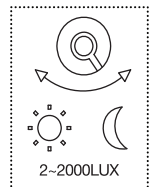
### Light Control Setting

The chosen light response threshold can be from approx. 2-2000lux.

Turn it fully anti-clockwise to select night operation at about 2 Lux.

Turn it fully clockwise to select daylight operation at about 2000lux.

The knob must be turned fully clockwise when adjusting the detection zone and performing the walk test in daylight.



## Troubleshooting

Malfunction	Cause	Remedy
The load will not work	• Wrong light-control setting	• Adjust setting
	• Load faulty	• Change load
	• Mains switch OFF	• Switch ON
The load works always	• Continuous movement in the detection zone	• Check zone setting
The load works without any identifiable movement	• The sensor is not mounted for detecting movement reliably	• Securely mount enclosure
	• movement occurred, but not identified by the sensor(movement behind wall, movement of a small object in immediate sensor vicinity etc.)	• Check zone setting • Check for air/con interference near sensor
The load will not work despite movement	• Rapid movements are being suppressed to minimize malfunctioning or the detection zone you have set is too small	• Check zone setting

## PRODUCT COMPLIANCES

### Product complies with:

AS/NZS60335.1:2020  
EN55015:2013+A1:2015  
EN61000-3.3:2013  
EN301 489-3 V2.1.1:2017

IEC60669-1:2017  
EN61547:2009  
EN300 440 V2.1.1:2017  
EN51479:2010

IEC60669-2.1  
EN61000-3.2:2014  
EN301 489-1 V2.2.0:2017

## MANUFACTURERS EXTENDED WARRANTY

This product is guaranteed by SIMX Ltd for 3 years from the date of purchase against faulty materials or workmanship which affects its designed ability to switch or operate. During this period if the product has a defect of this nature it will be repaired or replaced free of charge by SIMX with the same item, or a similar one of higher specification. ON CONDITION THAT:

The buyer returns it to the seller from whom it was bought, freight paid.

The product has been bought by the user. ie a receipt/sales invoice is produced as proof of purchase.

The product has not been misused or handled carelessly, installed in anyway contrary to the installation instructions, used on a supply voltage other than that indicated in the product specifications, or installed in any unusually exposed or harsh environmental conditions.

This guarantee excludes liability for discolouration of paint or plastic, or any user serviceable parts. It does not confer any rights other than those expressly set out above and does not cover any claims for consequential loss or damage.

Our Goods come with guarantees that cannot be excluded under New Zealand or Australian Consumer Laws. You are entitled to a replacement or refund for a major failure and for compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the Goods repaired or replaced if the Goods fail to be of acceptable quality and the failure does not amount to a major failure.



**Distributed by:** Simx Limited

Ph: +64 9 259 1660 | Technical Support Ph: +64 9 259 1662

Email: [sales@simx.co.nz](mailto:sales@simx.co.nz) | [www.simx.co.nz](http://www.simx.co.nz) | [www.ventair.com.au](http://www.ventair.com.au)

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