

# INSTALLATION INSTRUCTIONS



## MICROSENSE 360° MICROWAVE DISC SENSOR LHT1147



Thank you for purchasing this Simx Lighting 360° Microwave DISC 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 interior dry ceiling locations.

### TECHNICAL SPECIFICATIONS

Power Supply	220-240V AC 50Hz
Max Rated Load	800W (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, 3min, 8min and 12min
Light Control	10 LUX – Daylight
Power Consumption	<0.5W (approx.)
Recommended Mounting Height	3 - 5m
Operating Temperature	-10 to +60 degree centigrade
IP Rating	IP40
Mounting	Indoors, ceiling 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.

## BEFORE YOU START

**Please read all the instructions prior to installation.**

MicroSense 360° Microwave DISC Sensor should be wired to its own switch. Do not interconnect with other sensor types on the same switch. The sensor is rated to IP40 meaning indoor installation only is possible. Do not switch different lamps on same circuit i.e. LED & Fluoro.

Lighting loads connected must not exceed maximum listed in Technical Specifications.

To achieve best results, **please consider the following points when selecting installation location:**

A moving human body, or object, needs to cross/enter the detection zone to activate the sensor.

The sensor is more sensitive to movement directly TOWARDS its field of vision than to movement ACROSS it. Therefore, position the unit so that the sensor looks TOWARDS the likely approach path.

## INSTALLATION

**We strongly recommend this light fitting is installed by a registered electrician**

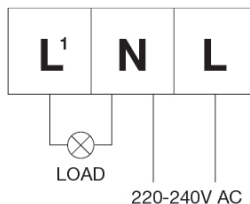
- Switch off the power supply before commencing any electrical work.
- Select the desired mounting location.
- Remove cover with short clockwise twist. Mount to desired location, and mark and drill power entry and mounting holes. Care should be taken to avoid drilling or screwing into concealed wiring/plumbing.
- 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 into the ceiling firmly.

**Important:**

- This microwave sensor cannot detect through **most** metal surfaces.
- For reliable operation, avoid installing in areas with notable air turbulence.

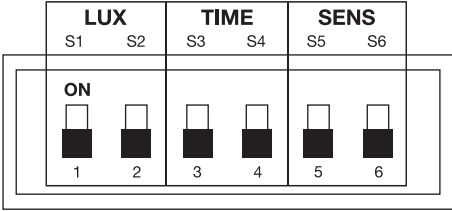
## ELECTRICAL CONNECTION

*Wiring Diagram*



# CALIBRATION SETTINGS

Dipswitch adjustment on the sensor will set your desired settings accurately during installation, and can be easily adjusted as your needs change.



## Light Control Setting

Select the minimum light threshold for activation from approx. 10 lux to 30 lux or select 24H (daylight) setting for operation regardless of light level. As a guide, dusk is approx. 30lux and practically dark is 10lux.

LUX	Daylight		10 LUX		20 LUX		30 LUX	
SWITCH POSITIONS	ON	ON	ON	ON	ON	ON	ON	ON
LUX: S1 S2	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	1	2	1	2	1	2	1	2

## Time Setting

Time can be set 10 sec to 12 min. Any movement detected before this time elapses will restart the timer. It is recommended to select the shortest time for adjusting the detection zone and for performing the walk test.

TIME	10 sec		3 min		8 min		12 min	
SWITCH POSITIONS	ON	ON	ON	ON	ON	ON	ON	ON
TIME: S3 S4	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	3	4	3	4	3	4	3	4

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

## Detection Setting (Sensitivity)

Distance	20%		50%		75%		100%	
SWITCH POSITIONS	ON	ON	ON	ON	ON	ON	ON	ON
Distance: S5 S6	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	5	6	5	6	5	6	5	6

Note: the above detection distance is measured using a person who is between 1.6 - 1.7m tall with an average build, moving at a speed of 1.0 - 1.5m/sec. If any of these variable are changed, the detection distance will also resultantly change.

## PRODUCT COMPLIANCES

### Product complies with:

AS/NZS60335.1:2020	IEC60669-1:2017	IEC60669-2.1
EN55015:2013+A1:2015	EN61547:2009	EN61000-3.2:2014
EN61000-3.3:2013	EN300 440 V2.1.1:2017	EN301 489-1 V2.2.0:2017
EN301 489-3 V2.1.1:2017	EN51479:2010	

## 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.



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