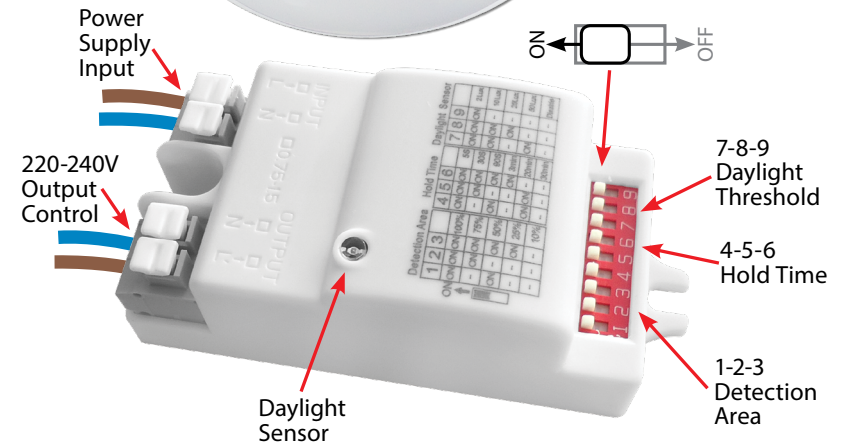


INSTALLATION INSTRUCTIONS

A guide for qualified electricians



Pack contents:
1 x LED fitting



Model: MSLEDMINSC

9W LED Ceiling/Wall Fitting With Microwave Sensor

These instructions are provided as a guideline to assist you.

**PLEASE READ THESE INSTRUCTIONS BEFORE INSTALLATION
AND RETAIN FOR FUTURE REFERENCE**

LED LAMP SPECIFICATIONS:

Luminaire lumens (with diffuser)	921 lm
Lumens from chip (no diffuser)	995 lm
Useful lumens	854 lm
Rated Wattage	9W
Rated luminous flux	1048 lm
Nominal life time of the lamp	50,000 hrs
Colour temperature	4000K
Number of switching cycles before premature lamp failure	15,000
Warm-up time up to 60% of the full light output	Instant Full Light
Dimmable	No
Nominal beam angle	120°
Rated power	9W
Rated lamp lifetime	50,000 hrs
Displacement factor	≥0.93
Lumen maintenance factor at end of nominal life	≥0.9
Starting time	Instant Full Light
Colour rendering	≥80
Colour consistency	Within a six step Macadam ellipse
Rated peak intensity	325cd
Rated beam angle	120°
Voltage / Frequency	240V~50Hz
Lumen efficacy	94.8 lm / W
This product contains a Light Source of Energy Efficiency Class E	
Class 2 double insulated	
Not suitable for accent lighting	

IF YOU EXPERIENCE PROBLEMS:

If you believe your product is defective, please return it to the place where you bought it. Our Technical Team will gladly advise on any Eterna Lighting product, but may not be able to give specific instructions regarding individual installations.

RED DIRECTIVE

Eterna Lighting Ltd

Microwave Occupancy Sensor

Full declaration available at www.eterna-lighting.co.uk

LAMP REPLACEMENT:

The light source is designed to last the lifetime of the luminaire.

The light source contained in this luminaire shall only be replaced by the manufacturer, service agent or a similar qualified person.

CAUTION, RISK OF ELECTRIC SHOCK.



EVENTUALLY, YOU MAY WANT TO REPLACE THIS PRODUCT:

Regulations require the recycling of Waste from Electrical and Electronic Equipment (European "WEEE Directive" effective August 2005—UK WEEE Regulations effective 2nd January 2007). Environment Agency Registered Producer: WEE/GA0248QZ.

WHEN YOUR PRODUCT COMES TO THE END OF ITS LIFE OR YOU CHOOSE TO REPLACE IT, PLEASE RECYCLE IT WHERE FACILITIES EXIST - DO NOT DISPOSE WITH HOUSEHOLD WASTE.



Email: sales@eterna-lighting.co.uk / technical@eterna-lighting.co.uk

Visit our website: www.eterna-lighting.co.uk

Made in China

READ THIS FIRST:

Check the pack and make sure you have all of the parts listed on the front of this booklet. If not, contact the outlet where you bought this product.

This product must be installed by a competent person in accordance with the current building and IEE wiring regulations.

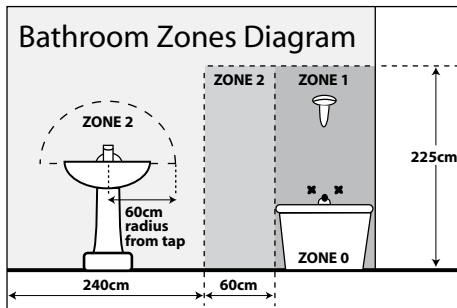
As the buyer, installer and/or user of this product it is your own responsibility to ensure that this fitting is fit for the purpose for which you have intended it. Eterna Lighting cannot accept any liability for loss, damage or premature failure resulting from inappropriate use.

This product is designed and constructed according to the principles of the appropriate British Standard and is intended for normal domestic service. Using this fitting in any other environments may result in a shortened working life, for example where there is prolonged periods of use or higher than normal ambient temperatures such as lighting public or shared spaces or in nursing /care home facilities.

Switch off the mains before commencing installation and remove the appropriate circuit fuse or lock off MCB.

This product is suitable for use in living areas, Bathroom Zone 2 and outside of zones.

If being fitted in a bathroom a 30mA RCD must be used.



This product is designed for permanent connection to fixed wiring: this must be a suitable circuit (protected with the appropriate MCB or fuse).

This product is suitable for installation on surfaces with normal flammability e.g. wood, plasterboard and masonry. It is not suitable for use on highly flammable surfaces (e.g. polystyrene, textiles).

Before making fixing hole(s), check that there are no obstructions hidden beneath the mounting surface such as pipes or cables.

The chosen location of your new fitting should allow for the product to be securely mounted (e.g. to a ceiling joist) and safely connected to the mains supply (lighting circuit).

When making connections ensure that the cables are gripped securely and that no strands of wire protrude. Check that the terminals are secured onto the bared conductors and not onto any insulation.

This product is not intended to be used by children and persons with sensory, physical and/or mental impairments that would prevent them from using it safely.

You are advised at every stage of your installation to double-check any electrical connections you have made. After you have completed your installation there are electrical tests that should be carried out, these tests are specified in the current IEE wiring and building regulations.

CLEANING:

Clean this fitting only with a soft dry cloth. Do not use any chemical or abrasive cleaners.

INTRODUCTION:

The ceiling / wall light incorporates a microwave sensing device which continuously scans the operating zone and immediately switches the light on when it detects movement in that area. This means that whenever movement is detected within the range of the sensor the light will switch on automatically and illuminate the area you have selected to light. While there is movement within range of the unit the light will remain on.

A microwave sensor is an active motion detector emitting high-frequency electro-magnetic waves at 5.8GHz and receiving their echo. The sensor detects change in the echo pattern within its detection zone and the light is then triggered. The wave can pass through doors, glass and thin walls and will continually monitor the signal within the detection area.

MICROWAVE SENSOR SPECIFICATIONS:

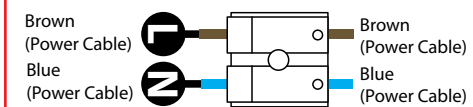
PRODUCT TYPE	MICROWAVE MOTION SENSOR
Operating Voltage	220-240VAC 50/60Hz
HF System	5.8GHz
Transmission Power	1mW Max
Detection Angle	150 Degree
Power Consumption	<0.5W
Detection Range	Max. 6m adjustable
Time Setting	5s-30m
Mounting	Indoors, ceiling and wall
Light Control	2-50lux, disable
Working Temp	-20 to +60 degree
Rated Load	400W (Inductive load) 800W (Resistive load) 270W (LED)

INSTALLATION:

Isolate mains and lock off.

Choose the location for your new fitting according to the conditions listed opposite.

- 01) Hold the base of the fitting and gently turn the diffuser and decorative trim anti-clockwise and lift off.
- 02) Loosen the 3 screws at the keyhole slots and turn gear tray to remove.
- 03) Drill holes in the back of your fitting for your fixing screws, take care and drill gently to ensure a clean hole through. Use a drill bit sized appropriately to your fixing screws (not supplied).
- 04) Using the back of your fitting as a template, mark the position of your fixing holes on your mounting surface.
- 05) Prepare the holes in your mounting surface as appropriate for your fixings.
- 06) Pierce the rubber grommet in the back of your fitting making a hole just large enough to make a tight fit around the incoming mains cable.
- 07) Thread the cable through the grommet and offer the fitting to the ceiling / wall.
- 08) Secure the fitting in place. Note, if protection against ingress of moisture is required, the heads of screws must be covered with a silicone or similar sealant.
- 09) Check that the grommet is still correctly fitted in the cable entry hole and around the incoming cable.
- 10) Make the electrical connections to the gear tray according to the symbols, adjacent to the connector block:
 - Brown to live (L)
 - Blue to neutral (N)



- 11) Replace gear tray and secure in position with the 3 screws.
- 12) Adjust microwave to desired settings.
- 13) Offer the diffuser and decorative trim onto the top of the fitting and turn clockwise until they are held securely.
- 14) Restore the power and switch on.

UNDERSTANDING THE CONTROLS:

REFER TO MICROWAVE SENSOR PICTURE ON THE FRONT PAGE

The sensor is an active motion detector: it emits a high frequency electromagnetic wave 5.8GHz and receives its echo. The sensor detects the change in echo from movement in its detection zone. A microprocessor then triggers the switch light ON command. Detection is possible through doors, panels of glass and thin walls.

DETECTION RANGE:

This determines the effective range of the motion detector and is set up by DIP switches at the sensor itself, refer to figure. Note that reducing the sensitivity will also narrow the detection range.

DETECTION AREA				
	1	2	3	
I	ON	ON	ON	100%
II	-	ON	ON	75%
III	ON	-	ON	50%
IV	-	-	ON	25%
V	-	-	-	10%

HOLD TIME:

This determines the time the fitting remains at 100% level on motion detection and is set with DIP switches at the sensor itself, refer to figure. The walk test settings (5sec) is useful when installing the fitting to establish correct operation and range.

HOLD TIME				
	4	5	6	
I	ON	ON	ON	5s
II	-	ON	ON	30s
III	ON	-	ON	90s
IV	-	-	ON	3 mins
V	ON	ON	-	20 mins
VI	-	-	-	30 mins

DAYLIGHT SENSOR:

This setting holds off the 100% light output should there be sufficient daylight and is set using DIP switches at the sensor, refer to figure.

*If the daylight sensor is disabled the sensor will turn on light once motion is detected regardless of ambient light level.

DAYLIGHT SENSOR				
	7	8	9	
I	ON	ON	ON	2Lux
II	ON	ON	-	10Lux
III	-	ON	-	25Lux
IV	ON	-	-	50Lux
V	-	-	-	Disable*