E-MATIC
Energy Management Solutions

LIGHTING CONTROL GUIDE 2018

EDITION 1

WHY USE LIGHTING CONTROLS?

Lighting controls offer many benefits to property owners & users alike including;

- **RUNNING COST REDUCTIONS**
- **ENERGY SAVINGS**
- **LESS MAINTENANCE**
- **IMPROVED STAFF PRODUCTIVITY**
- **INCREASED SAFETY & WELL-BEING**

TYPES OF LIGHTING CONTROL

Covering numerous applications, the E-Matic lighting control range provides various solutions;

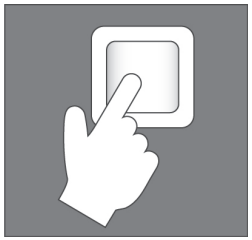
- **MOVEMENT SENSING**
- **LIGHT LEVEL SENSING**
- **DAYLIGHT HARVESTING**
- **TIME CONTROL**
- **MANUAL CONTROL**

MOVEMENT SENSING

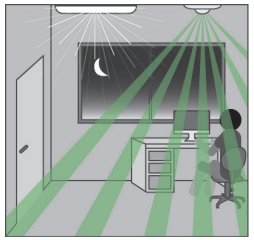
Movement sensing reduces energy use by ensuring lighting is only switched on when required. Unoccupied areas leave lighting switched off, or depending on equipment installed, dimmed to a lower lighting level. Movement sensing can either be PRESENCE or ABSENCE.

PRESENCE: Auto ON, Auto OFF. When movement is detected, lights are switched on, with no movement lights are switched off.

ABSENCE: Request ON, Auto OFF. Lights are switched on manually then the sensor waits for the area to be vacated before switching lighting off.



Switch on lighting manually



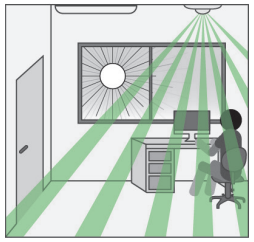
Lighting remains on whilst occupied

Lighting turned off when Absence detected

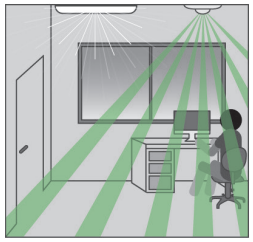
DAYLIGHT HARVESTING

Daylight harvesting maximises the use of natural light from windows to illuminate internal areas. Sensors measure the ambient light levels and lighting fixture brightness is adjusted accordingly.

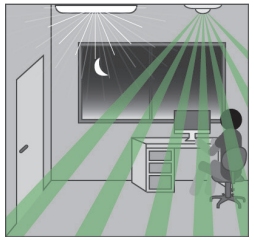
Only certain types of lighting fixture or LED drivers are suitable for this technology to work. Look for LED dimming that uses 1-10V technology.



Enough daylight, occupied - Lighting keeps OFF



Decreased daylight, occupied - DIM lighting

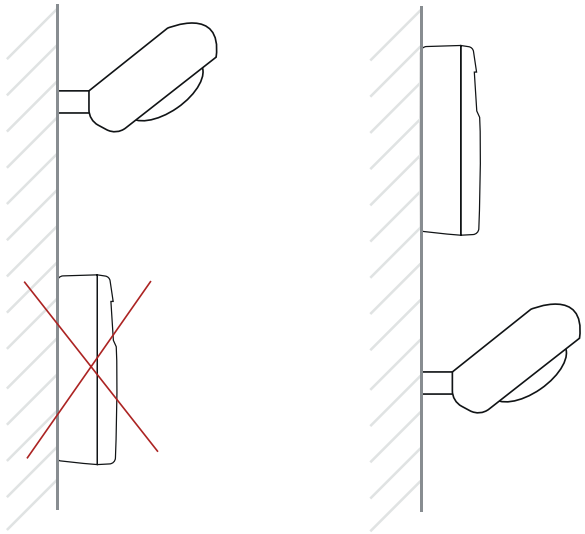


Night, occupied - Lighting keeps ON with higher brightness

Night, unoccupied - Switching lighting OFF

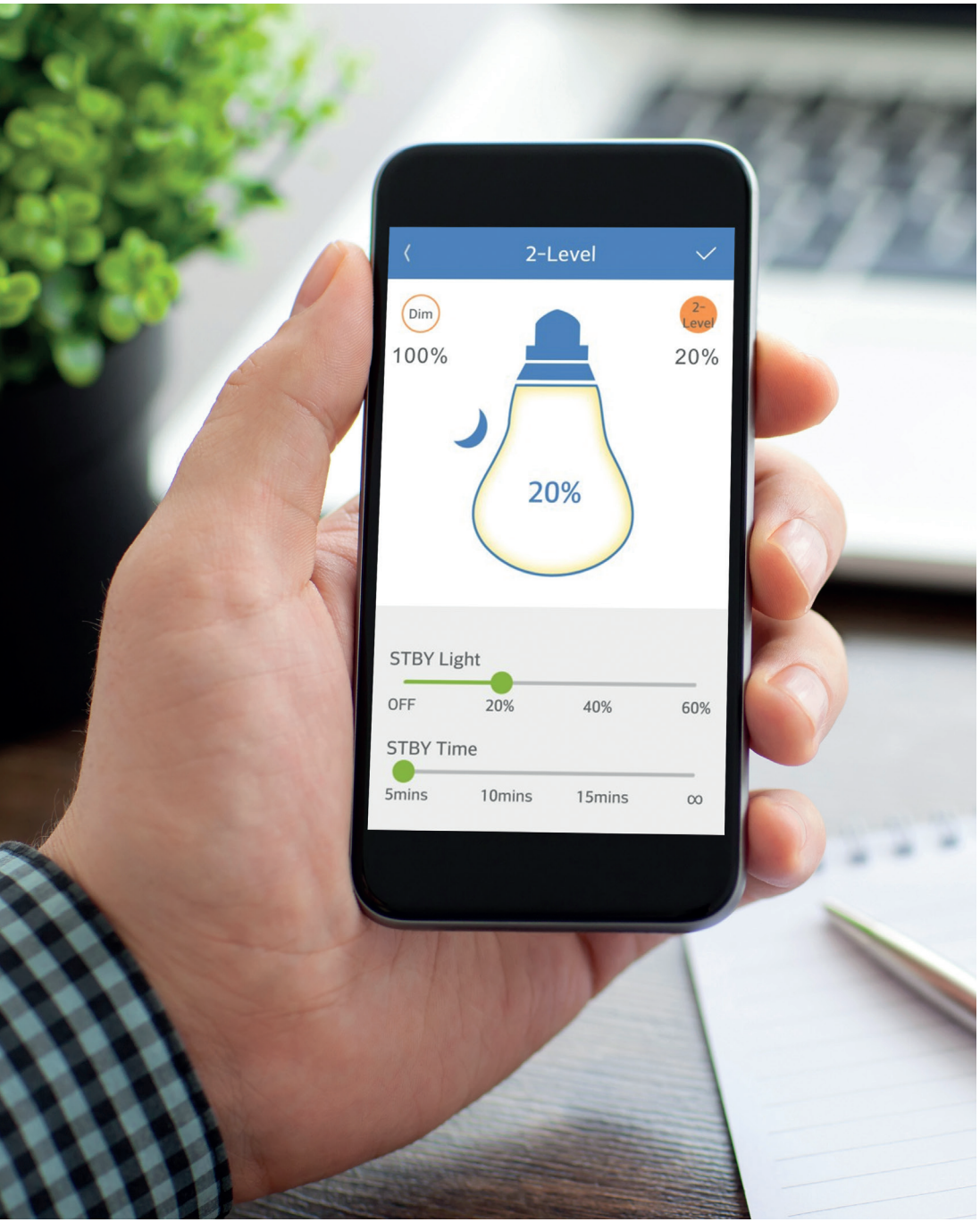
LIGHT LEVEL SENSING

Light level sensing relies on photocell sensors measuring ambient light levels. Lighting is switched on when the lux level drops below a predetermined level which can be adjusted according to requirements. This ensures lighting is switched on consistently when levels dictate, rather than relying on a timer or manual control. It is good practice to install the sensor above the lighting source.



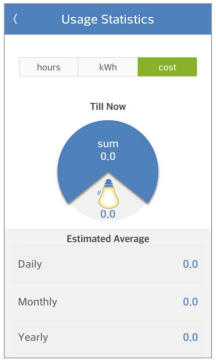
Incorrect **Correct**

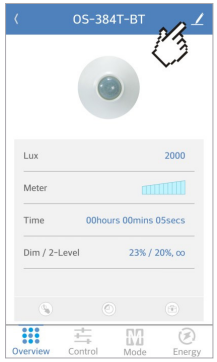
Mount sensor above lighting

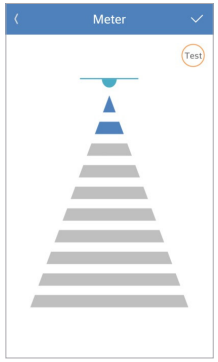


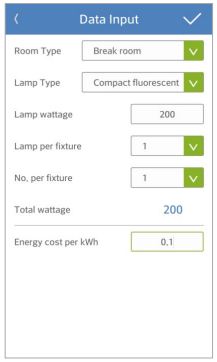
MANUAL CONTROL

The most popular method for controlling lighting is manual control, mainly via a switch. These can be in many forms including standard On/Off, dimming modules, rf remote controls or even from a smart phone or tablet.



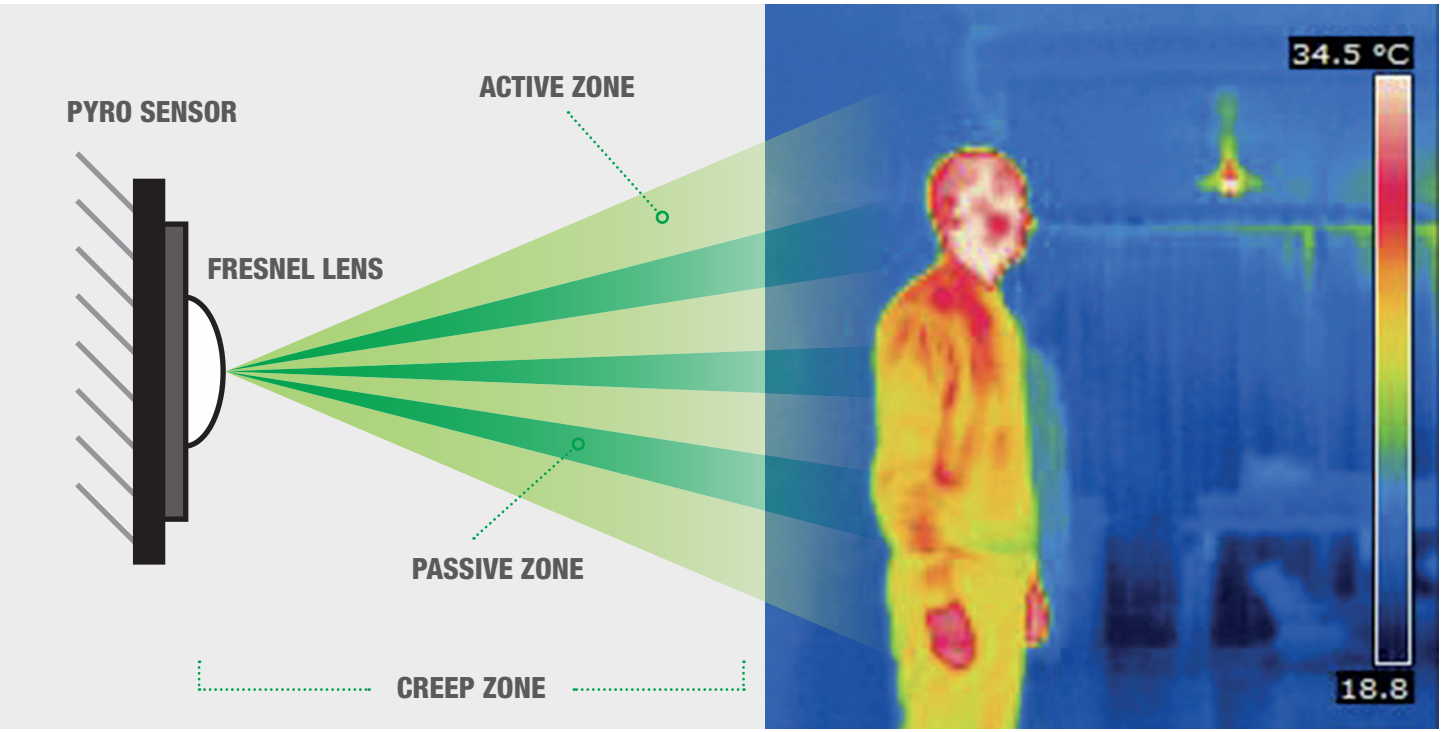






TECHNOLOGY

The E-Matic range is constantly evolving with the latest technologies employed.



PIR

Passive Infra-Red is the most common technology used and operates by detecting heat movement.

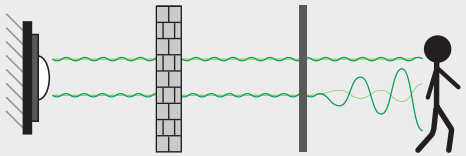
Infrared sensors measure heat radiated from humans and animals. Lenses split the detection area into passive and active zones. The pyro sensor measures the heat in each of the active zones thus detecting movement when warm objects move between the active zones. PIR technology is particularly useful in areas with a constant or slowly changing ambient temperature. It is not advised to be used in very hot conditions, or where temperature can change quickly, like a conservatory or near heating/ventilation sources.

MICROWAVE

Also known as High Frequency sensors, microwave sensors detect solid object movement. This is achieved by emitting then monitoring microwave signals. Any object movement within the range of the device changes the frequency of the monitored signal, which is then interpreted as movement.

This technology is extremely sensitive, even to the slightest of movement & the signals can pass through certain materials such as plastic, brick or glass. This allows for detection through normal area boundaries which has its own positives & negatives.

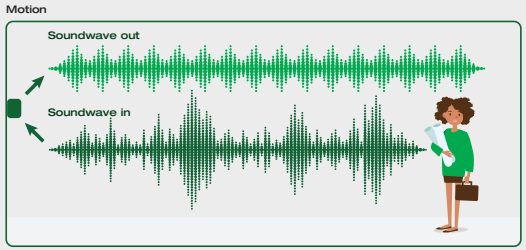
Microwaves can pass through objects enabling detection of movement through obstructing materials.

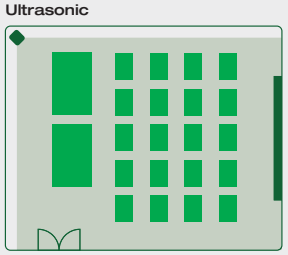


EXAMPLE: Using microwave, only one sensor is required to cover all the toilet stalls and communal areas.

ULTRASONIC

Ultrasonic provides extremely sensitive detection performance using sound waves to detect solid object movement. Signals are emitted & monitored with moving objects altering the signal received. Sound waves differ from microwave as they cannot pass through objects; the signal simply reflects off them. This technology should be used in enclosed areas such as offices or classrooms and shouldn't be exposed to large vibrations or extreme noise.

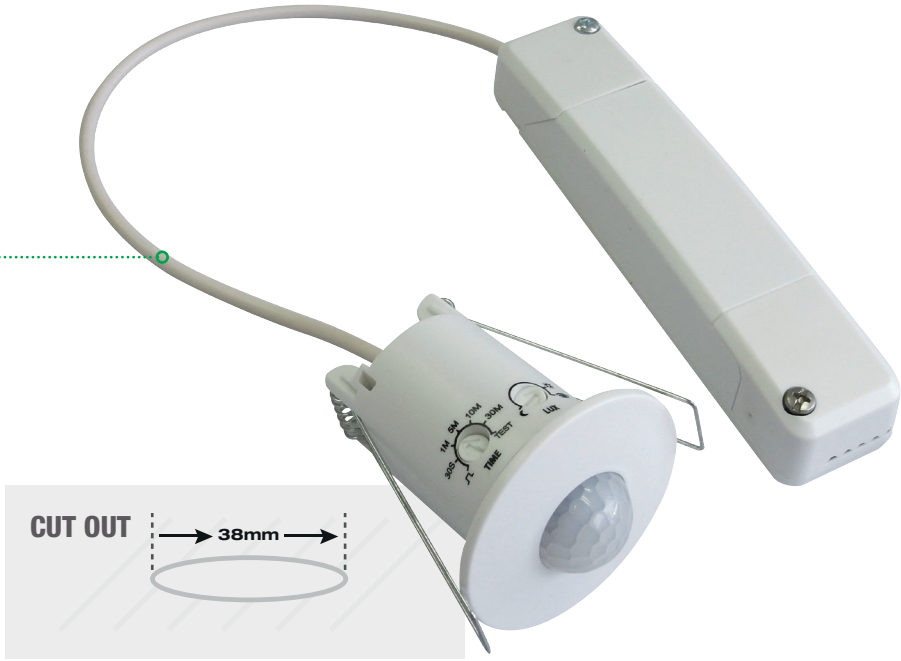




Sound waves fill all the detection area.

MINIATURE SENSOR HEAD

Sensors are often required for compliance to regulations and standards but the physical size of the sensor can sometimes detract from the decoration in a room, especially in non-commercial applications. The Miniature sensor head option has a separate relay module which is attached to the head via cable. This allows the sensor head to be much smaller & be much less intrusive.

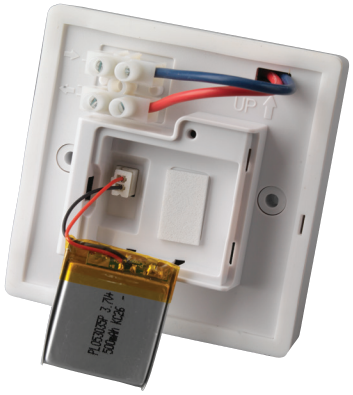


DUAL CHANNEL

Different or multiple loads in the same area are often required to be switched. Dual channel sensors have two independently controlled relays to allow this. An example of this feature would be a toilet area. Relay 1 could be used for the lighting & set for 1 minute duration. Relay 2 could be used for the extractor fan and the duration set for a longer period. This saves the energy as the lighting isn't left turned on unnecessarily. The 2nd relay is also often used to switch other HVAC equipment independently from the lighting in an area.

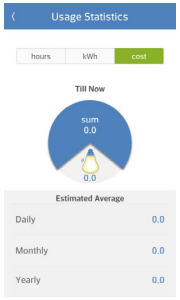
TWO WIRE

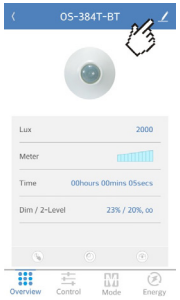
Sensors are often retrofitted into an existing lighting installation by simply replacing an existing light switch. Depending on the installation cabling, this may pose a problem as a neutral may not be present. To combat this E-Matic provide the Two Wire option which does not require a neutral cable. This is artificially created through an integral rechargeable battery cell with charge being maintained when lights are in use.

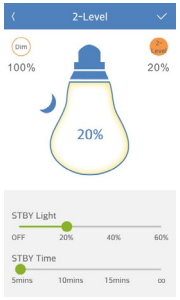


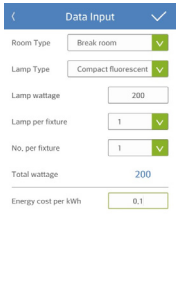
BLUETOOTH CONTROL

In addition to fully automatic control of lighting, customers are increasingly looking for control capability through smart phones or tablet computers. The Bluetooth Control feature allows for full setup of the sensor from a 'paired' smartphone running the free of charge App. Additionally the App allows for overriding control and in addition has an energy monitoring mode which provides useful usage information for energy managers.



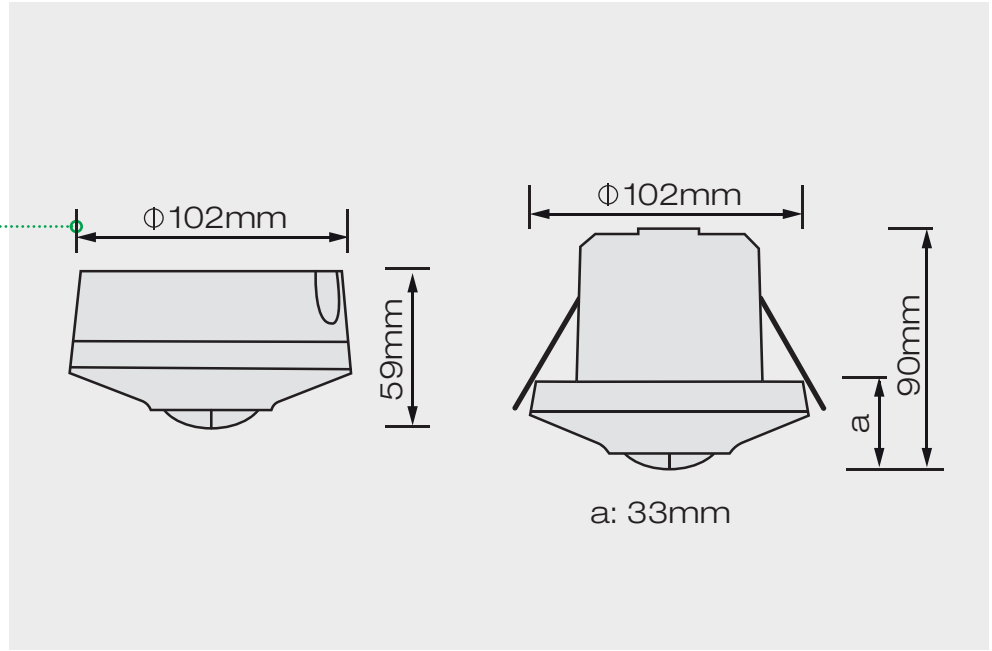


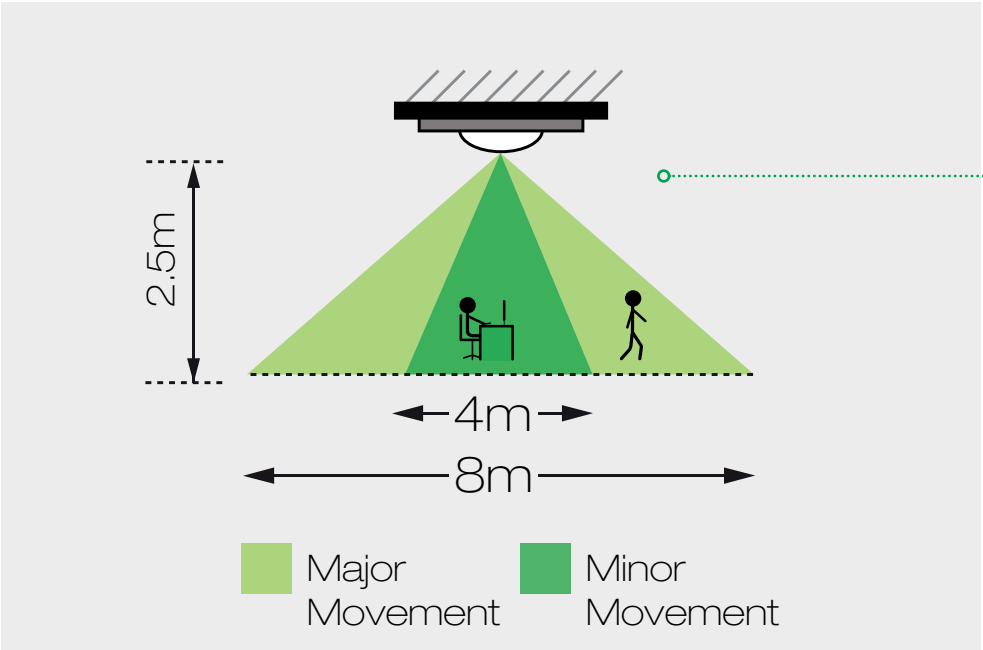




UNIVERSAL MOUNTING

Some applications benefit from flush mounting sensors but other areas, often within the same building can only be surface mounted. To keep the same aesthetic across a single installation use a Universal Mounting sensor. These are supplied with surface mounting base plus a terminal cap with springs etc. for flush mounting.

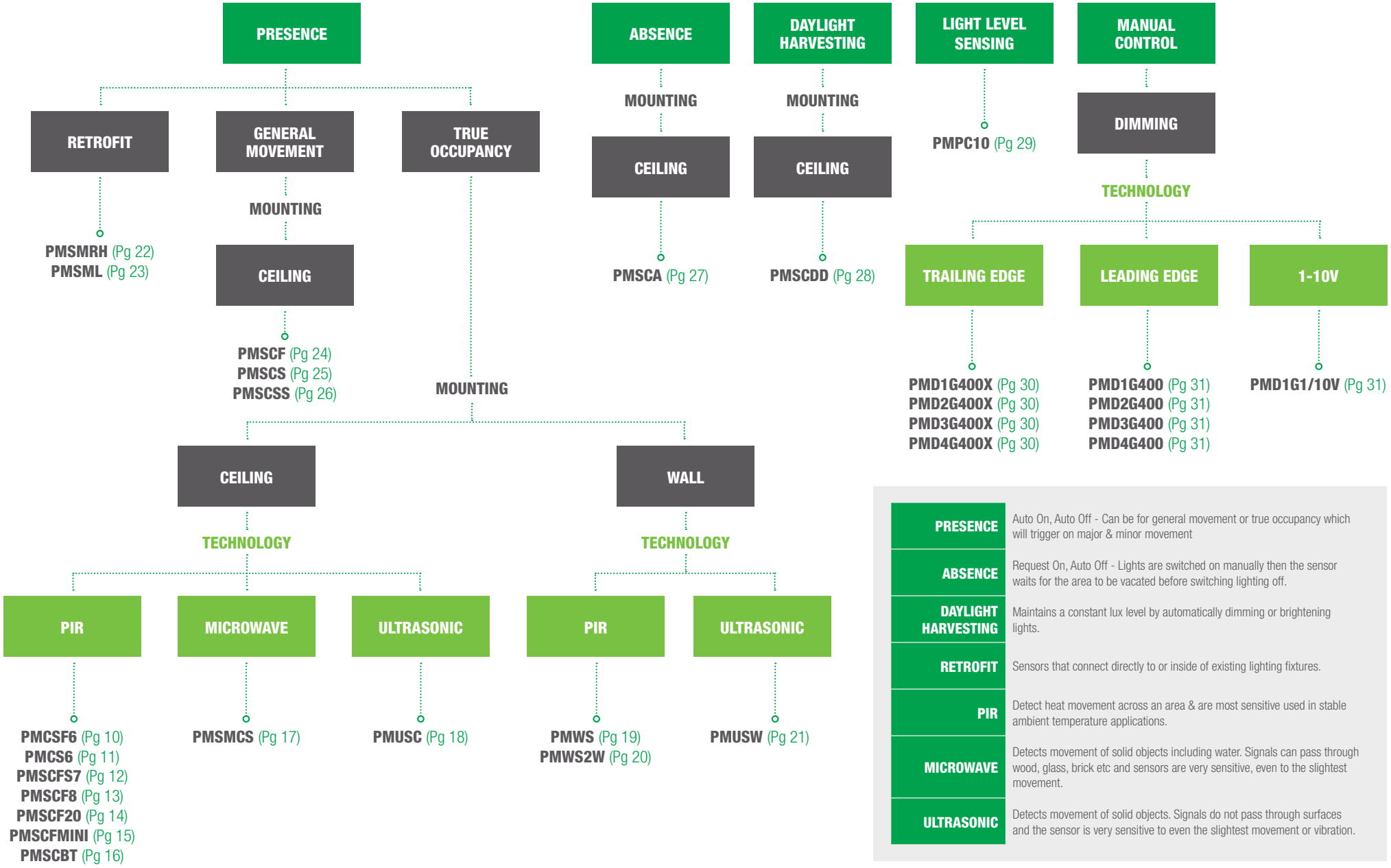




TRUE OCCUPANCY VS GENERAL MOVEMENT

Presence style PIR movement sensors can be classed either as General Movement or True Occupancy. For low traffic areas General Movement sensors are adequate but for areas with higher levels of activity, True Occupancy is recommended. True Occupancy sensors are more sensitive to minor movements due to the addition of minor movement zones.

LIGHTING CONTROL SELECTION



PRESENCE	Auto On, Auto Off - Can be for general movement or true occupancy which will trigger on major & minor movement
ABSENCE	Request On, Auto Off - Lights are switched on manually then the sensor waits for the area to be vacated before switching lighting off.
DAYLIGHT HARVESTING	Maintains a constant lux level by automatically dimming or brightening lights.
RETROFIT	Sensors that connect directly to or inside of existing lighting fixtures.
PIR	Detect heat movement across an area & are most sensitive used in stable ambient temperature applications.
MICROWAVE	Detects movement of solid objects including water. Signals can pass through wood, glass, brick etc and sensors are very sensitive, even to the slightest movement.
ULTRASONIC	Detects movement of solid objects. Signals do not pass through surfaces and the sensor is very sensitive to even the slightest movement or vibration.

PMCSF6

Presence Sensors - True Occupancy - Ceiling - PIR

Up to 2000W

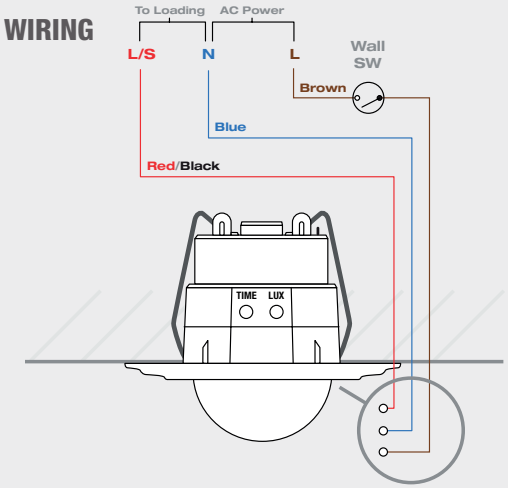
6M

KEY FEATURES

- Flush Mount
- Incandescent, Halogen, Fluorescent, LED and energy saving loads
- Pre-wired
- Spring clips for easy and quick installation
- Single Channel

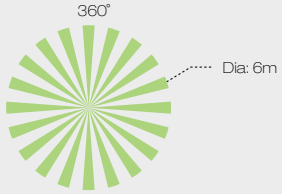
LED LAMP	200W (10 qty max)
FLUORESCENT LAMP	1500W / 12A
HALOGEN LAMP	2000W / 8A
ENERGY SAVING LAMP	200W
INCANDESCENT LAMP	2000W
DETECTION ANGLE	360° @ 2.5m height
DETECTION DISTANCE	6m radius @ 2.5m height
MOUNTING HIGHT	2.2 - 3m ceiling mount
LUX ADJUSTMENT	30 - 200 lux
DIMENSIONS (MM)	Dia: 85 D: 80

WIRING

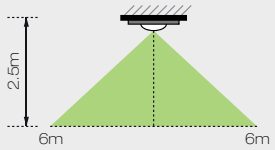


DETECTION DETAILS

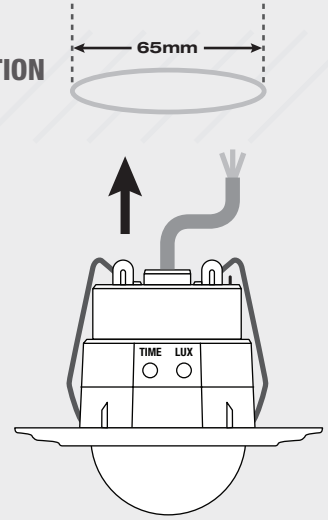
Top view



Side view



INSTALLATION



PMCS6

Presence Sensors - True Occupancy - Ceiling - PIR

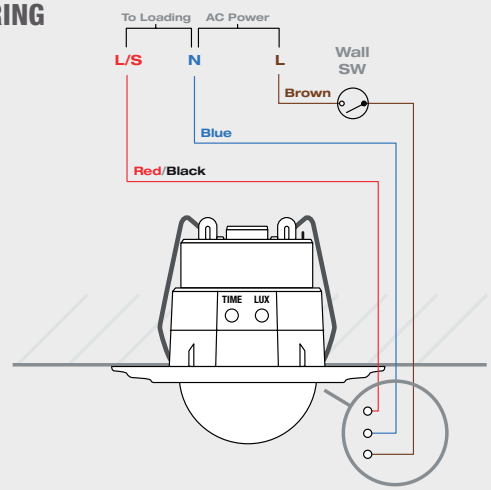
Up to **2000W** **6M**

KEY FEATURES

- Surface mounts on a standard 1g box (not supplied)
- Incandescent, Halogen, Fluorescent, LED and energy saving loads
- 2.2 metre mounting height
- Single Channel

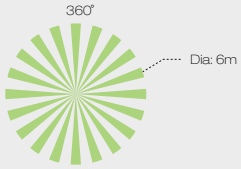
LED LAMP	200W (10 qty max)
FLUORESCENT LAMP	1500W / 12A
HALOGEN LAMP	2000W / 8A
ENERGY SAVING LAMP	200W
INCANDESCENT LAMP	2000W
DETECTION ANGLE	360˚ @ 2.5m height
DETECTION DISTANCE	6m radius @ 2.5m height
MOUNTING HEIGHT	2.2 - 3m ceiling mount
LUX ADJUSTMENT	30 - 200 Lux
DIMENSIONS (MM)	L: 85 W: 85 D: 55

WIRING

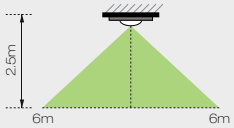


DETECTION DETAILS

Top view



Side view



PMSCFS7

Presence Sensors - True Occupancy - Ceiling - PIR

Up to 2000W

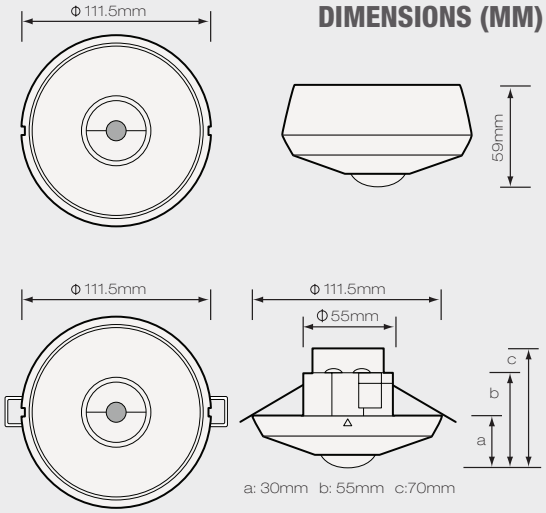
7M

KEY FEATURES

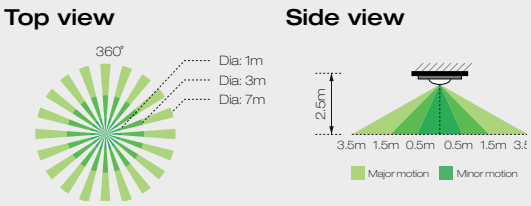
- Surface base and spring clamps for flush mount supplied
- Incandescent, Halogen, Fluorescent, LED and energy saving loads
- Auto learn function
- Manual on/off override via push button
- Surface & Flush
- Single Channel

RATED VOLTAGE	230V ~±10% 50/60Hz
DETECTION RANGE	⌖ 7m @ 2.5m height
LUX ADJUSTMENT	from approx. 10 - 2000 lux
AUTO OFF TIME ADJUSTMENT	approx. 5secs - 30mins
OPERATING TEMPERATURE	0˚C - +45˚C (indoor usage) -20˚C to +45˚C (outdoor usage)
ENVIRONMENTAL PROTECTION	IP44 (surface mount with junction box); IP40 (flush mount with spring clip)
LED LAMP	max. 400W
INCANDESCENT LAMP	max. 2000W
HV HALOGEN LAMP	max. 1000W
LV HALOGEN LAMP	max. 1000VA / 600W
FLUORESCENT LAMP	max. 900VA
PL LAMPS	max. 600VA / 400W

DIMENSIONS (MM)



DETECTION DETAILS



PMSCF8

Presence Sensors - True Occupancy - Ceiling - PIR

Up to 2000W

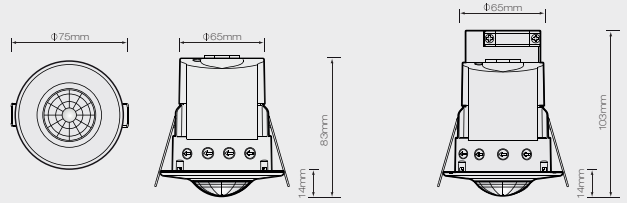
8M

KEY FEATURES

- Lighting and HVAC control (Dual Channel)
- Incandescent, Halogen, Fluorescent, LED and energy saving loads
- Auto learn function
- Pre-wired
- Manual on/off override via push button
- Individual channel adjustable detection range, lux and off time
- Spring clamps for easy and quick installation
- Ideal for toilets, switching lighting and fans separately
- Two channel flush

RATED VOLTAGE	230V ~±10% 50/60Hz
DETECTION RANGE	⌖ 8m @ 2.5m height
LUX ADJUSTMENT	from approx. 10 - 2000 lux
AUTO OFF TIME ADJUSTMENT	
LIGHTING	approx. 5secs - 30mins
HVAC	approx.10secs - 60mins
METER ADJUSTMENT	adjustable from "-" ~ ⌖ 2m to "+" ~ ⌖ 10m
OPERATING TEMPERATURE	0°C - +45°C
ENVIRONMENTAL PROTECTION	IP44
LUX FOR HVAC	max. 5A (cos = 1) for ≤250V AC max. 5A for ≤30V DC max. 1A (cos = 0.4) for ≤250V AC
LED LAMP	max. 500VA / 400W
INCANDESCENT LAMP	max. 2000W
AC HALOGEN LAMP	max. 1000W
LV HALOGEN LAMP	max. 1000VA / 600W
FLUORESCENT LAMP	max 900VA / 100µF 25 x (1x18W); 12 x (2x18W) 15 x (1x36W); 7 x (2x36W) 10 x (1x58W); 5 x (2x58W) max. 1000VA / 600W (uncompensated)
ENERGY SAVING LAMP	max. 600VA / 400W (include CFL & PL lamp)

DIMENSIONS (MM)



DETECTION DETAILS

PMSCF20

Presence Sensors - True Occupancy - Ceiling - PIR

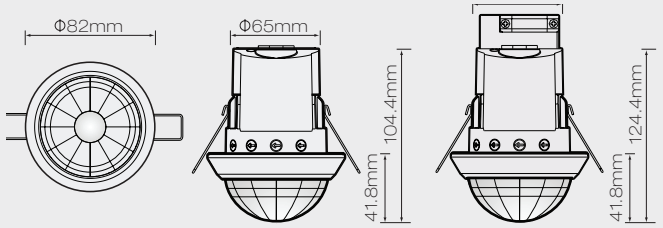
Up to 2000W

20M

KEY FEATURES

- Lighting and HVAC control (Dual Channel)
- Incandescent, Halogen, Fluorescent, LED and energy saving loads
- Auto learn function
- Pre-wired
- Manual on/off override via push button
- Individual channel adjustable detection range, lux and off time
- Spring clamps for easy and quick installation
- Ideal for larger areas and corridors
- Two Channel Flush

DIMENSIONS (MM)



DETECTION DETAILS

RATED VOLTAGE	230V ~±10% 50/60Hz
DETECTION RANGE	⌖ 20m @ 2.5m height
LUX ADJUSTMENT	from approx. 10 - 2000 lux
AUTO OFF TIME ADJUSTMENT	
LIGHTING	approx. 5secs - 30mins
HVAC	approx.10secs - 60mins
METER ADJUSTMENT	adjustable from "-" ~ ⌖ 2m to "+" ~ ⌖ 10m
OPERATING TEMPERATURE	0°C - +45°C
ENVIRONMENTAL PROTECTION	IP44
LUX FOR HVAC	max. 5A (cos = 1) for ≤250V AC max. 5A for ≤30V DC max. 1A (cos = 0.4) for ≤250V AC
LED LAMP	max. 400W
INCANDESCENT LAMP	max 2000W
AC HALOGEN LAMP	max. 2000W
LV HALOGEN LAMP	max. 1000W
FLUORESCENT LAMP	max. 1000VA / 600W 25 x (1x18W); 12 x (2x18W) 15 x (1x36W); 7 x (2x36W) 10 x (1x58W); 5 x (2x58W) max. 1000VA / 600W
ENERGY SAVING LAMP	max. 600VA / 400W (include CFL & PL lamp)

PMSCFMINI

Presence Sensors - True Occupancy - Ceiling - PIR

Up to 1000W

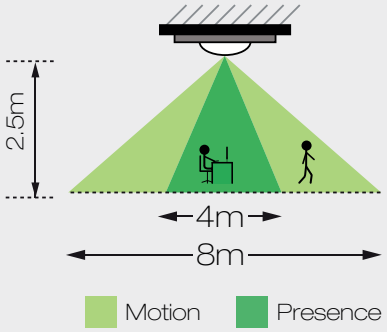
8M

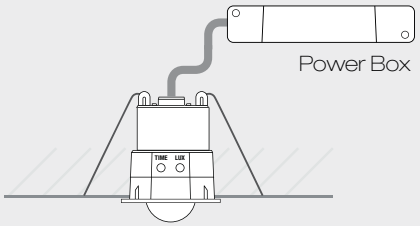
KEY FEATURES

- Miniature sensor head
- Dual presence and motion detection mode
- Lux memory mode memorises ambient light level for operation
- Manual override function (6 hours) Off on off on.
- Flush single channel

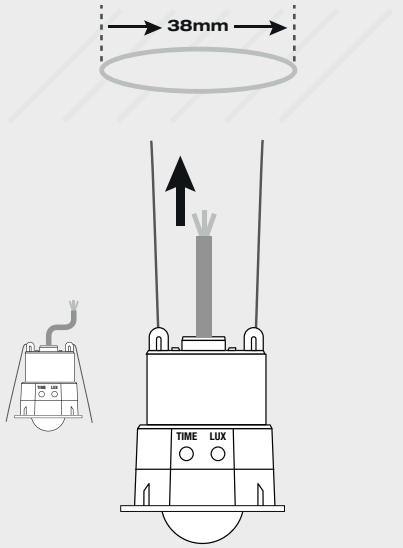
LED LAMP	300W (max 10 parallel connection)
FLUORESCENT LAMP	1000W
HALOGEN LAMP	1000W
L.V. HALOGEN LAMP	600W
ENERGY SAVING LAMP	300W
INCANDESCENT LAMP	2000W
DETECTION ANGLE	360˚
DETECTION DISTANCE	8m
MOUNTING HEIGHT	Up to 2.5m
LUX ADJUSTMENT	5 - 1000 Lux
DIMENSIONS (MM)	Sensor Head - Dia: 50 D: 65 Powerbox - L: 130 W:29 D:25

DETECTION DETAILS





INSTALLATION



PMSCBT

Presence Sensors - True Occupancy - Ceiling - PIR

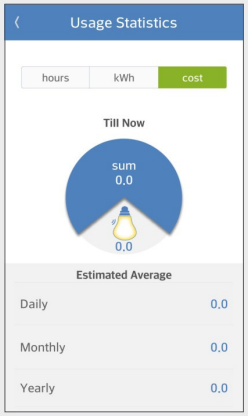
KEY FEATURES

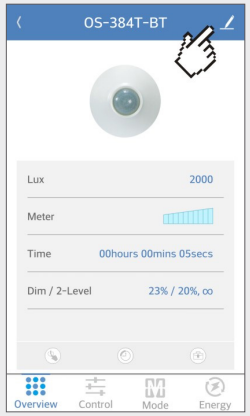
- Bluetooth setup and control
- Ceiling mount occupancy sensor
- Lighting automation control
- Energy monitor function
- Dimming Capability

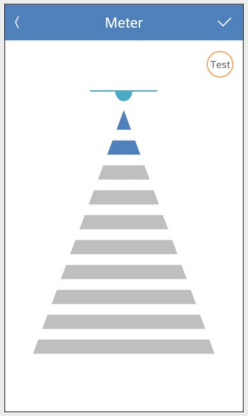
The PMSCBT PIR Occupancy Sensor is configured with a Bluetooth interface and user friendly app which enables the user to program it by smartphone or tablet (android). The occupancy sensor automatically switches on the lighting load upon movement and off, after the preset delay time when vacant. Lighting can be dimmed and additional benefits including schedules, holiday mode and energy monitoring options enable the user to maximise energy saving and automation potential.

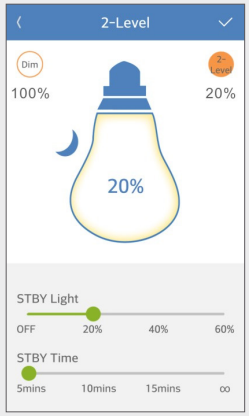
USE A SMARTPHONE OR TABLET TO SETUP AND MONITOR USAGE.

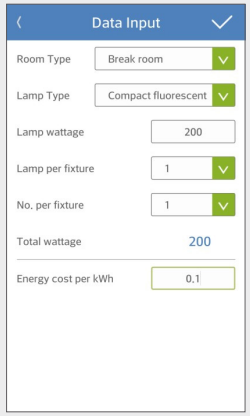
GET IT ON Google Play











PMSMCS

Presence Sensors - True Occupancy - Ceiling - MICROWAVE

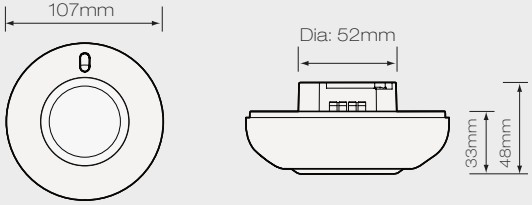
Up to **2000W** **6M**

KEY FEATURES

- Surface base plus flush mounting clips supplied
- Up to 10m adjustable mounting height
- Remote control supplied for easy set up
- Auto learn function
- Incandescent, Halogen, Fluorescent, LED and energy saving loads
- High Frequency Microwave Sensor

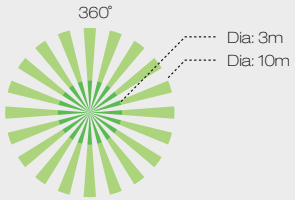
LED LAMP	max. 500VA / 400W
FLUORESCENT LAMP	600W
HALOGEN LAMP	1000W
L.V. HALOGEN LAMP	600W / 1000VA
ENERGY SAVING LAMP	max. 600VA / 400W
INCANDESCENT LAMP	2000W
DETECTION ANGLE	360° @ 2.5m height
DETECTION DISTANCE	Adjustable up to 14m
MOUNTING HEIGHT	Adjustable up to 10m
LUX ADJUSTMENT	10 to infinity (10-2000 Auto Learn)
DIMENSIONS	⌀107 x 48mm

DIMENSIONS (MM)

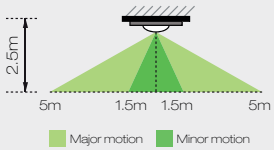


DETECTION DETAILS

Top view



Side view



IR REMOTE FOR SETUP & MANUAL OVERRIDE INCLUDED

PMUSC

Presence Sensors - True Occupancy - Ceiling - ULTRASONIC

Up to 2000W

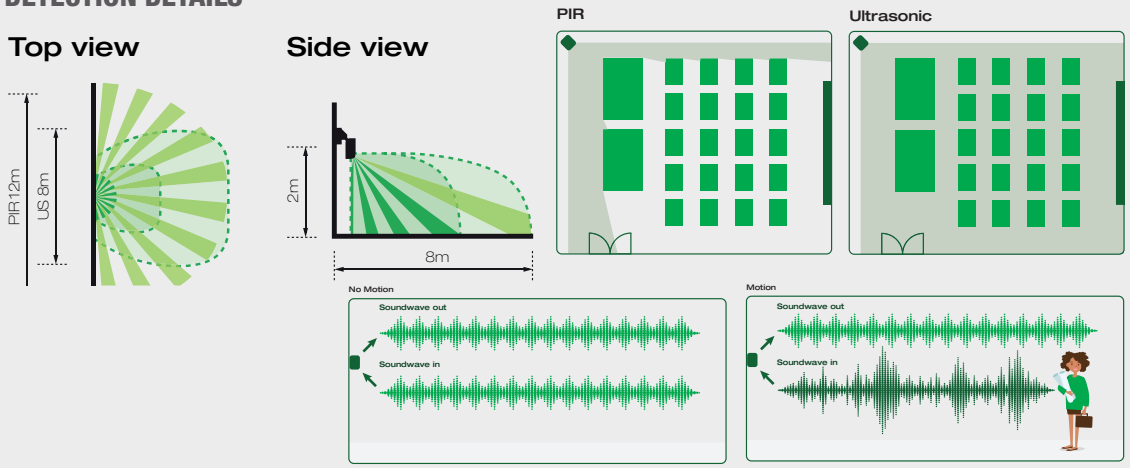
8M

KEY FEATURES

- ULTRASONIC technology uses sound waves to detect even slight movement
- PIR senses changes in temperature emitted by human movement
- Ultrasonic doesn't require an unobstructed line of site. It can see around corners.
- Ultrasonic is more sensitive to movement towards the detector
- Both technologies used (DualTech) ensures minimal false triggering

LED LAMP	max. 500VA / 400W
RATED VOLTAGE	230V ~± 10% 50 / 60Hz
INCANDESCENT LAMP	max. 2,000W
AC HALOGEN LAMP	max. 1,000W
LV HALOGEN LAMP	max. 1,000VA / 600W
FLUORESCENT LAMP	max. 900VA / 100µF 25 x (1 x 18W) : 12 x (2 x 18W) 15 x (1 x 36W) : 7 x (2 x 36W) 10 x (1 x 58W) : 5 x (2 x 58W) max. 1,000VA / 600W (uncompensated)
ENERGY SAVING LAMP	max. 600VA / 400W
DETECTION ANGLE	PMUSW: 180˚ PMUSC: 360˚
DETECTION RANGE	PIR adjustable approx. 8m in frontward, approx. 6m in sideward. (PMUSW) US adjustable approx. 8m x 8m
AUTO OFF TIME ADJUSTMENT	Adjustable from approx. 5sec to 30min, Test & ⌐t s⌙
LUX ADJUSTMENT	Adjustable from approx. 10Lux to 1,000Lux
ACC ON/OFF	Select "ON" for activating or select "OFF" for deactivating air current compensation function
ULTRASONIC SENSOR FREQUENCY	32KHz
OPERATING TEMPERATURE	0˚C - +45˚C
ENVIRONMENTAL PROTECTION	Class II, IP20
DIMENSIONS	⌀111.5 X 67mm

DETECTION DETAILS



PMWS

Presence Sensors - True Occupancy - Wall - PIR

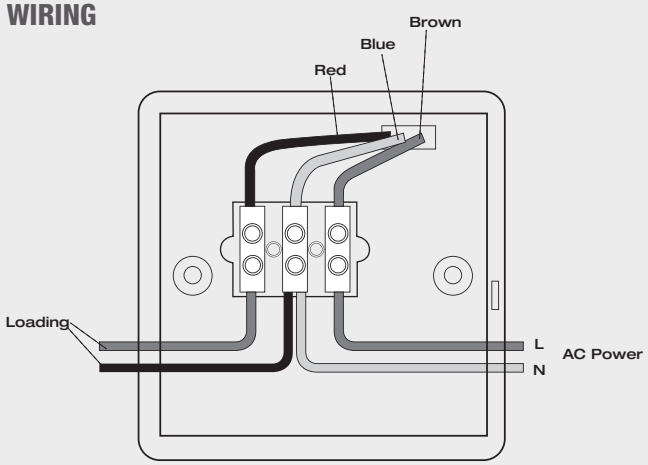
Up to **2000W** **12M**

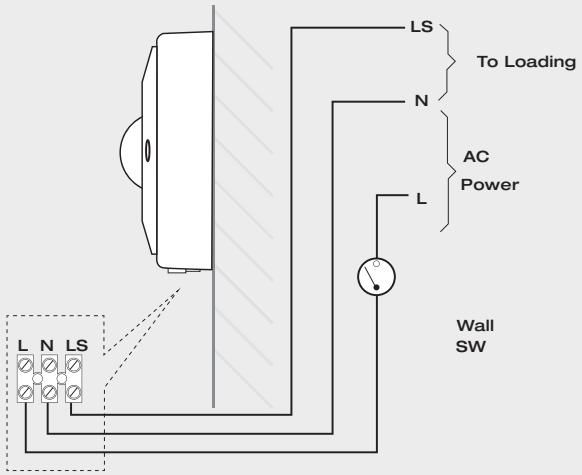
KEY FEATURES

- Incandescent, Halogen, Fluorescent, LED and energy saving loads
- **3 wire** (live, neutral, switch live)
- 110˚ detection angle
- Time adjustments: 10secs up to 40mins
- Single channel

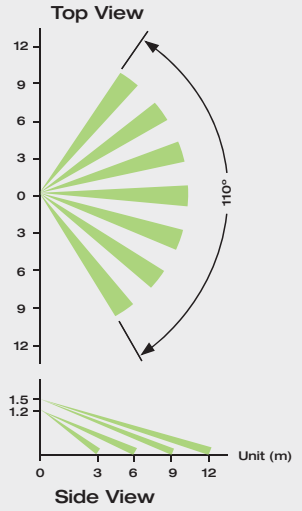
LED LAMP	200W (max 10 fittings)
INCANDESCENT LAMP	2000W / 8A
FLUORESCENT LAMP	1500W / 12A
HALOGEN LAMP	2000W / 8A
L.V. HALOGEN LAMP	600W
DETECTION ANGLE	110º@1.5m height
DETECTION DISTANCE	12m radius @1.5m height
MOUNTING HEIGHT	1.2 - 1.5 wall mount
LUX ADJUSTMENT	5 - 1000 Lux
SLIDE SWITCH CONTROL	Auto / off
DIMENSIONS (MM)	L: 85 W: 85 D: 35

WIRING





DETECTION DETAILS

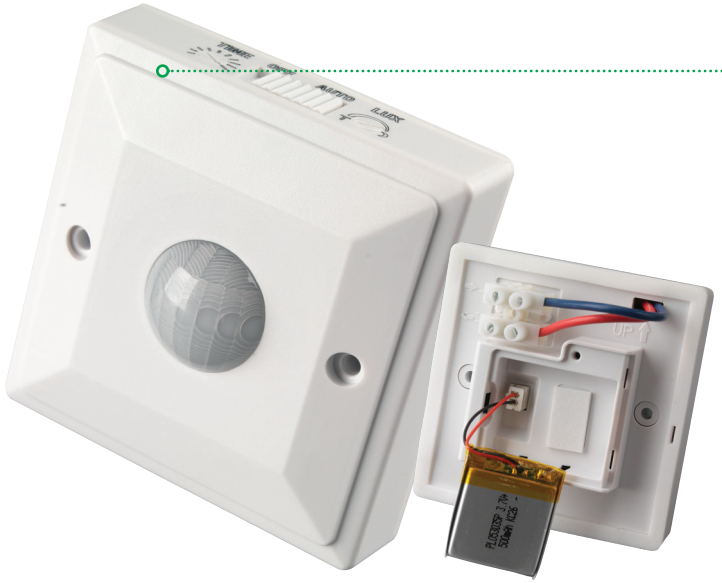


PMWS2W

Presence Sensors - True Occupancy - Wall - PIR

Up to 2000W

10M

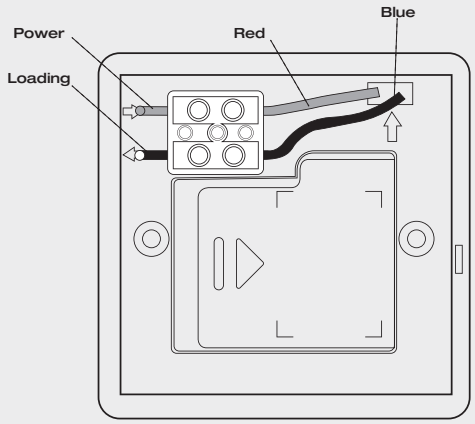


KEY FEATURES

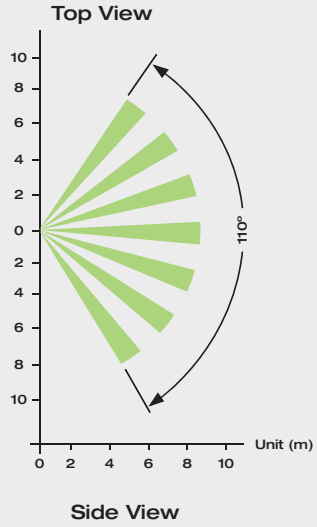
- Incandescent, Halogen, Fluorescent, LED and energy saving loads
- 2 wire (live, switch live)
- 110˚ detection angle
- Time adjustments: 10secs up to 40mins
- Integrated rechargeable battery
- Single channel

LED LAMP	150W
INCANDESCENT LAMP	2000W
FLUORESCENT LAMP	1000W
HALOGEN LAMP	1000W
ENERGY SAVING LAMP	120W
DETECTION ANGLE	110º@1.7m height
DETECTION DISTANCE	10m radius @1.7m height
MOUNTING HEIGHT	1.7 wall mount
LUX ADJUSTMENT	30 - 200 Lux
SLIDE SWITCH CONTROL	Auto / off
DIMENSIONS (MM)	L: 85 W: 85 D: 40

WIRING



DETECTION DETAILS



PMUSW

Presence Sensors - True Occupancy - Wall - ULTRASONIC

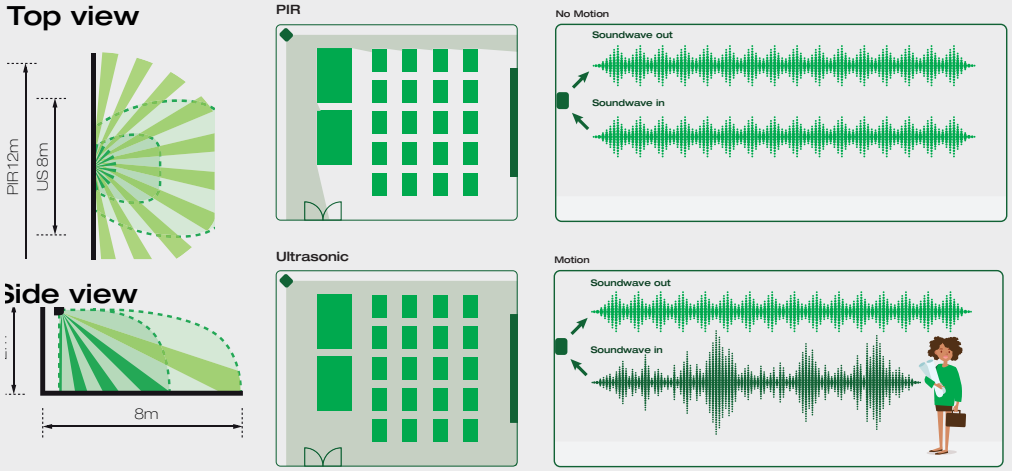
Up to 2000W

8M

KEY FEATURES

- ULTRASONIC technology uses sound waves to detect even slight movement
- PIR senses changes in temperature emitted by human movement
- Ultrasonic doesn't require an unobstructed line of site. It can see around corners.
- Ultrasonic is more sensitive to movement towards the detector
- Both technologies used (DualTech) ensures minimal false triggering

DETECTION DETAILS



RATED VOLTAGE	230V ~± 10% 50 / 60Hz
INCANDESCENT LAMP	max. 2,000W
AC HALOGEN LAMP	max. 1,000W
LV HALOGEN LAMP	max. 1,000VA / 600W
FLUORESCENT LAMP	max. 900VA / 100µF 25 x (1 x 18W) : 12 x (2 x 18W) 15 x (1 x 36W) : 7 x (2 x 36W) 10 x (1 x 58W) : 5 x (2 x 58W) max. 1,000VA / 600W (uncompensated)
LED LAMP	max. 500VA / 400W
ENERGY SAVING LAMP	max. 600VA / 400W
DETECTION ANGLE	PMUSW: 180˚ PMUSC: 360˚
DETECTION RANGE	PIR adjustable approx. 8m in frontward, approx. 6m in sideward. (PMUSW) US adjustable approx. 8m x 8m
AUTO OFF TIME ADJUSTMENT	Adjustable from approx. 5sec to 30min, Test & ⌐t s¬
LUX ADJUSTMENT	Adjustable from approx. 10Lux to 1,000Lux
ACC ON/OFF	Select "ON" for activating or select "OFF" for deactivating air current compensation function
TRIGGERING METHODS	PIR + US, PIR only, US only, PIR or US
ULTRASONIC SENSOR FREQUENCY	32KHz
OPERATING TEMPERATURE	0˚C - +45˚C
ENVIRONMENTAL PROTECTION:	Class II, IP20

PMSMRH

Presence Sensors - Retrofit

Up to 1000W

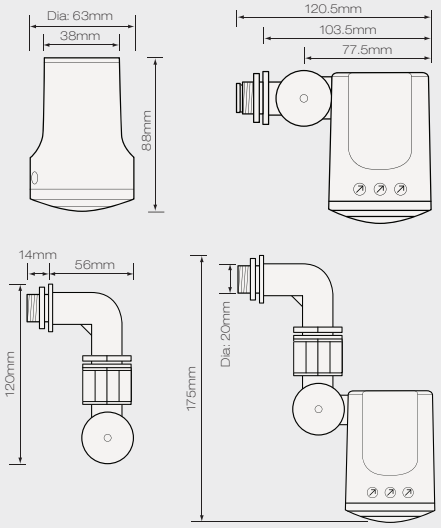
10M

KEY FEATURES

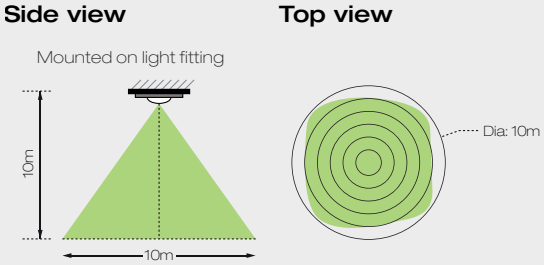
- Retrofit design allows mounting on to existing lighting fixtures
- IR remote control supplied for easy set up
- High sensitivity microwave technology
- LED indication
- Up to 10m mounting height
- Various mounting options supplied

RATED VOLTAGE	230V ~±10% 50/60Hz
DETECTION RANGE	Adjustable up to 14m
LUX ADJUSTMENT	5 Lux - ☼ (∞)
AUTO OFF TIME ADJUSTMENT	approx. 5secs - 30mins
ENVIRONMENTAL PROTECTION	IP44
LED LAMP	max. 200W
INCANDESCENT LAMP	max. 1000W
AC HALOGEN LAMP	max. 500W
LV HALOGEN LAMP	max. 200W
FLUORESCENT LAMP	max. 200W (electronic)
ENERGY SAVING LAMP	max. 150W (including CFL & PL)

DIMENSIONS (MM)



DETECTION DETAILS



IR REMOTE FOR SETUP & MANUAL OVERRIDE INCLUDED

PMSML

Presence Sensors - Retrofit

Up to 1000W

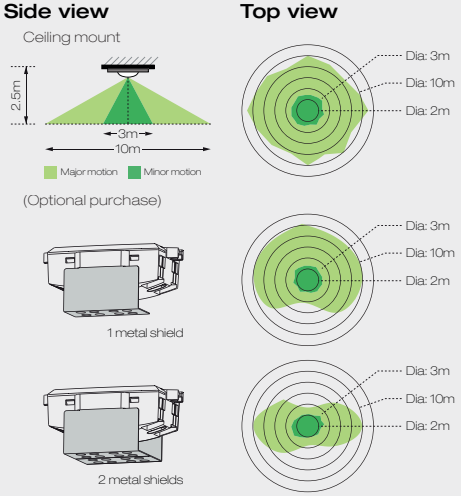
10M

KEY FEATURES

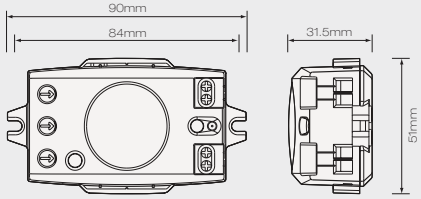
- Cost effective alternative to dimming
- Dual outputs - high output is activated by movement, low output activated by ambient lux level
- High sensitivity microwave sensor for detecting the slightest of movement
- Retro fits into existing fittings. No need for additional wiring or decorating etc.
- Low output is ideal as an orientation or night light in areas such as corridors and stairwells, with the added benefit of switching to high output upon movement
- Controls all types of lamps including low energy and LED
- Manual on or off by using additional push button or rocker switch
- Supplied with 2W low output LED night light

RATED VOLTAGE	230V ~±10% 50/60Hz
DETECTION RANGE	Adjustable up to 14m
LUX ADJUSTMENT	5 Lux - ☼ (∞)
AUTO OFF TIME ADJUSTMENT	approx. 5secs - 30mins & test
OPERATING TEMPERATURE	0°C - +70°C
ENVIRONMENTAL PROTECTION	IP20
LED LAMP	max. 200W
INCANDESCENT LAMP	max. 1000W
AC HALOGEN LAM	max. 500W
LV HALOGEN LAMP	max. 200W
FLUORESCENT LAMP	max. 200W (uncompensated)
ENERGY SAVING LAMP	max. 150W (include CFL & PL lamp) max.
AS AN ORIENTATION LIGHT	50W for incandescent lamp or LED lamp (supplied with 2W LED lamp)

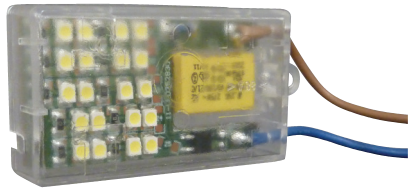
DETECTION DETAILS



DIMENSIONS (MM)



Supplied with 2W LED for low output channel orientation light



PMSCF

Presence Sensors - General Movement - Ceiling

Up to 2000W

4M

KEY FEATURES

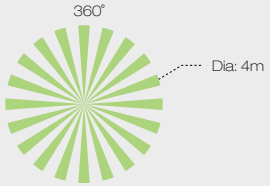
- Easy fit spring clips
- Clear protective terminal cover
- Adjustable time and lux levels
- Flush single channel

Also supplied PMSCF4 in packs of 4

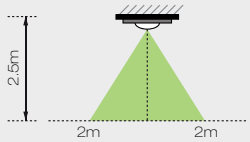
RATED VOLTAGE	220-240 AC 50Hz
DETECTION RANGE	4M @ 2.5M height
LUX ADJUSTMENT	approx. 30 - 200 lux
AUTO OFF TIME ADJ.	approx. 10(±5) secs - 30(±3)mins
OPERATING TEMP	0°C - +45°C
ENVIRONMENTAL PROTECTION	IP20
LED LAMP	min. 40W max.180W
INCANDESCENT LAMP	max. 2000W
DIMENSIONS (MM)	Dia: 75 D: 70

DETECTION DETAILS

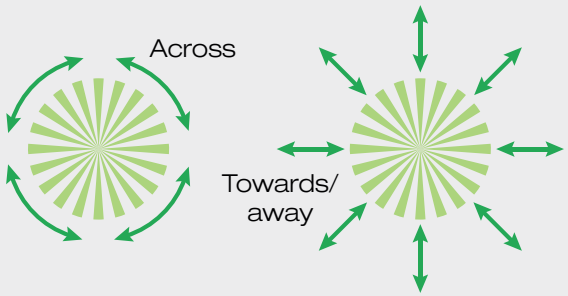
Top view



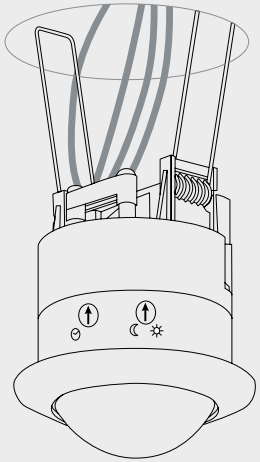
Side view



More effective / Less effective



INSTALLATION



PMSCS

Presence Sensors - General Movement - Ceiling

Up to **1600W** **4M**

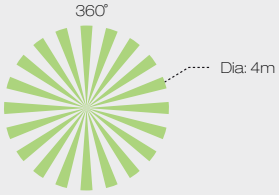
KEY FEATURES

- Surface mount
- LED indication
- Adjustable time and lux levels
- Single Channel

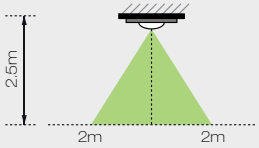
RATED VOLTAGE	230V ~±10% 50/60Hz
DETECTION RANGE	⌖ 4m @ 2.5m height
LUX ADJUSTMENT	approx. 30 - 200 lux
AUTO OFF TIME ADJUSTMENT	approx. 10secs - 4mins
ENVIRONMENTAL PROTECTION	IP20
LED LAMP	min. 40W max. 180W
INCANDESCENT LAMP	1600W
DIMENSIONS (MM)	Dia: 108 D: 30

DETECTION DETAILS

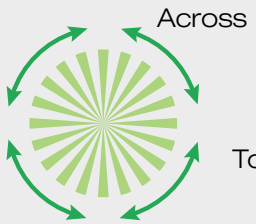
Top view



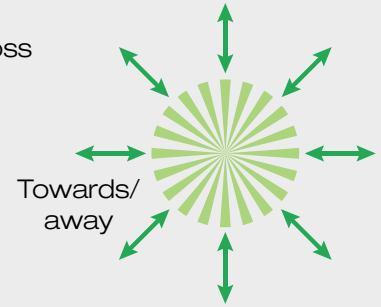
Side view



More effective



Less effective



PMSCSS

Presence Sensors - General Movement - Ceiling

IP65 | Up to 1600W | 5M

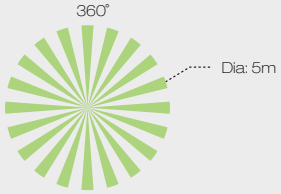
KEY FEATURES

- Ideal for bathrooms IP65
- Circular surface mount
- Adjustable time and lux levels
- Single channel

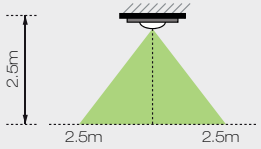
RATED VOLTAGE	230V ~±10% 50/60Hz
DETECTION RANGE	⌖ 5m @ 2.5m height
LUX ADJUSTMENT	approx. 30 - 200 lux
AUTO OFF TIME ADJUSTMENT	approx. 10secs - 4mins
ENVIRONMENTAL PROTECTION	IP65
LED LAMP	min. 40W max. 200W
INCANDESCENT LAMP	1600W
DIMENSIONS (MM)	Dia: 126 D: 40

DETECTION DETAILS

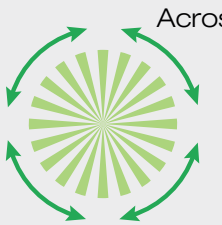
Top view



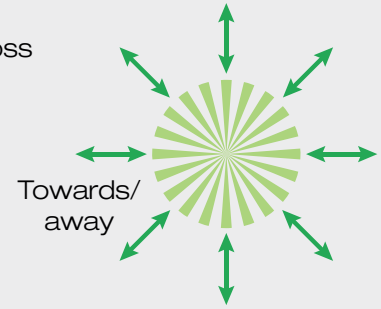
Side view



More effective



Less effective



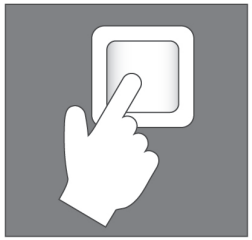
PMSCA

Absence Sensors - Ceiling

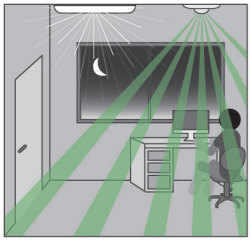
8M

KEY FEATURES

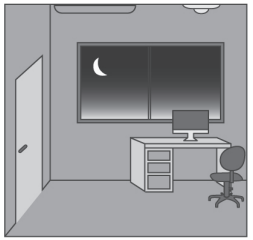
- Switch lighting on manually via separate push button
- Sensor checks for absence then switches off lighting
- Used in classrooms/meeting rooms
- Surface box and flush mount supplied
- IR remote supplied



Switch on lighting manually

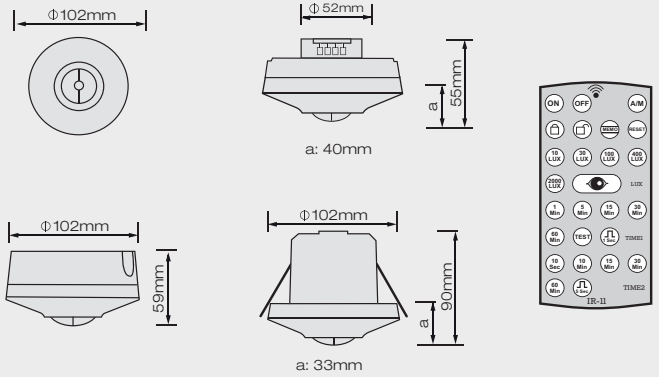


Lighting remains on whilst occupied

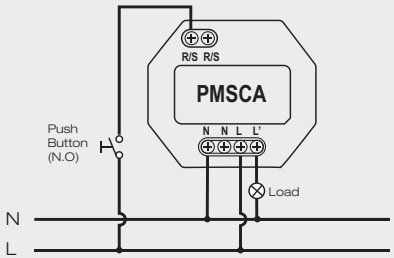


Lighting turned off when Absence detected

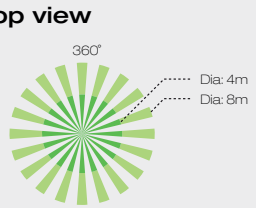
DIMENSIONS (MM)

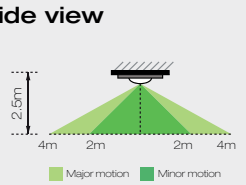


INSTALLATION



DETECTION DETAILS





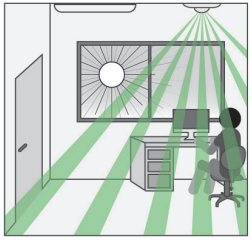
PMSCDD

Daylight Harvesting - Ceiling

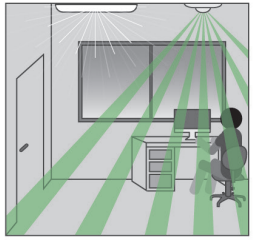
8M

KEY FEATURES

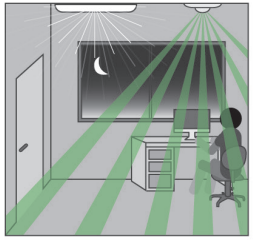
- Monitors ambient light and adjusts lighting brightness to maintain constant lighting level
- Suitable for 1-10v dimming electronic ballasts & LED drivers
- 360˚ coverage
- Absence detection function via push switch
- Surface box and flush clips supplied
- IR remote supplied



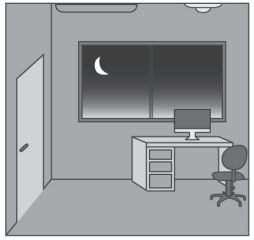
Enough daylight, occupied - Lighting keeps OFF



Decreased daylight, occupied - DIM lighting

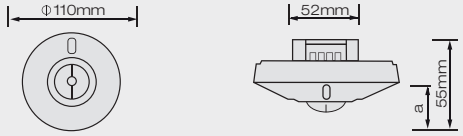


Night, occupied - Lighting keeps ON with higher brightness

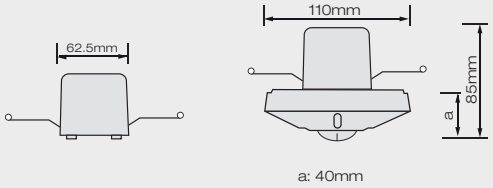


Night, unoccupied - Switching lighting OFF

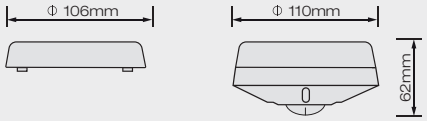
DIMENSIONS (MM)



Detector with power box cap

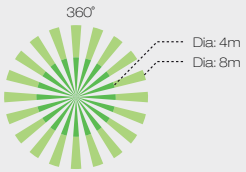


Detector with junction box

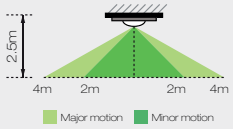


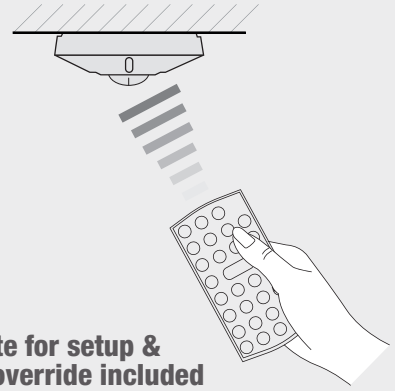
DETECTION DETAILS

Top view



Side view





IR Remote for setup & manual override included

PMPC10

Light Level Sensing

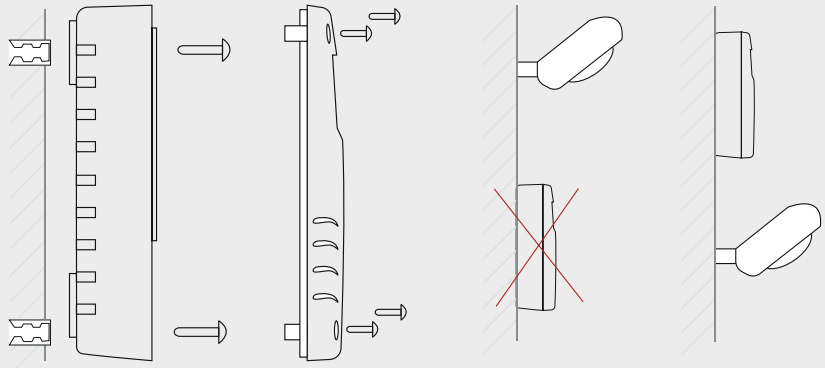
2300W IP44

KEY FEATURES

- Monitors ambient light levels
- Switches connected lighting loads
- Suitable for all types of lighting load
- Adjustable time 1-9 hours
- Adjustable lux level
- External use

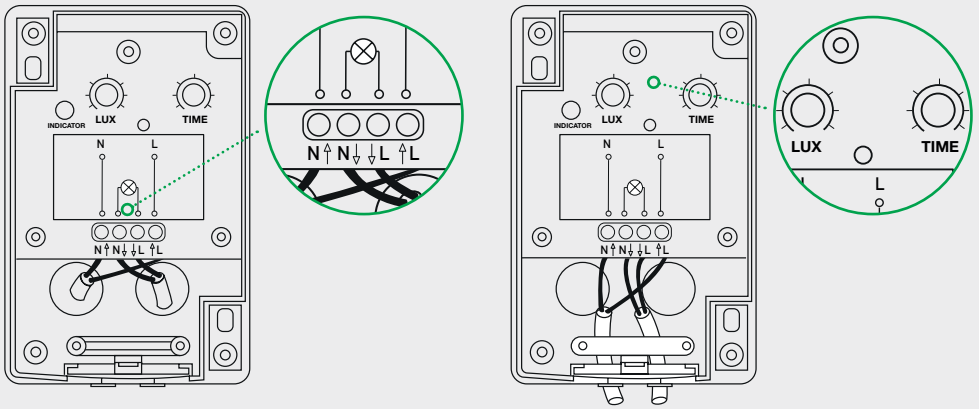
PL/CFL/LED	200W or 8 units
HALOGEN/INCANDESCENT LAMPS	2300W
FLUORESCENT LAMP	300W
AMBIENT LIGHT	<3 - 500 lux (adjustable)
BUILT IN TIMER	1,2,3,4,5,6,7,8,9 Hours
DIMENSIONS (MM)	L:35 W:68 H:107

INSTALLATION



Mount sensor above lighting

WIRING



PMD1G400X / PMD2G400X / PMD3G400X / PMD4G400X

Manual Control - Dimming - Trailing Edge

1 GANG

KEY FEATURES

- LED Dimmer switches for use with the E-Matic LED Product Range
- Start up level adjustment feature
- Push type rotary dimming

PMD1G400X:	**MAX WATT**	400w	**MAX LED WATT**	200w	**GANGS**	1	**WAYS**	2
PMD2G400X:	**MAX WATT**	400w x 2	**MAX LED WATT**	200w x 2	**GANGS**	2	**WAYS**	2
PMD3G400X:	**MAX WATT**	400w x 3	**MAX LED WATT**	200w x 3	**GANGS**	3	**WAYS**	2
PMD4G400X:	**MAX WATT**	400w x 4	**MAX LED WATT**	200w x 4	**GANGS**	4	**WAYS**	2

2 GANG

3 GANG

4 GANG

Each module trailing edge

PMD1G400 / PMD2G400 / PMD3G400 / PMD4G400

Manual Control - Dimming - Leading Edge

PMD1G1/10V

Manual Control - Dimming - 1-10V

1-10V MODULE

1 GANG

KEY FEATURES

- LED Dimmer switches for use with the E-Matic LED Product Range
- Start up level adjustment feature (not on PMD1G/10V)
- Push type rotary dimming

PMD1G/10V:	
VOLTS	1-10v
NUMBER OF GANGS	1
NUMBER OF DRIVERS	16 1-10v

PMD1G400:	MAX WATT	400w	MAX LED WATT	100w	GANGS	1	WAYS	2
PMD2G400:	MAX WATT	400w x 2	MAX LED WATT	100w x 2	GANGS	2	WAYS	2
PMD3G400:	MAX WATT	400w x 3	MAX LED WATT	100w x 2	GANGS	3	WAYS	2
PMD4G400:	MAX WATT	400w x 4	MAX LED WATT	100w x 2	GANGS	4	WAYS	2

2 GANG

3 GANG

4 GANG

Each module leading edge

E-MATIC
Energy Management Solutions

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