Simple Fit Switching PIR Sensors

Description
MK Simple Fit Sensors offer cost effective presence detection for lighting control in small to medium areas. This one-box solution is easy to install and commission, and requires no additional parts. Providing cost effective presence detection for lighting control, Simple Fit dual mount sensors are easy to install and can deliver energy savings of up to 70%*

FEATURES
- Presence detection by passive infrared
- Innovative dual mount system requires only one sensor for either flush or surface mount applications
- External programming dials enable quick adjustment of time and lux levels
- Off delay adjustable between 5 seconds and 18 minutes following the last observed movement after which the lights switch off
- PIR Lens provides 360 degree detection
- Detection Range of up to 6m diameter at 25°C at 2.5m mounting height
- Manual on / off override function
- Mounting Height: Recommended ceiling mount 1.8m to 3m
- Loading up to 6 Amps
- Ability to wire more than 1 sensor in parallel to a load
- Ability to switch volt free loads
- Lens mask included to mask out any areas of unwanted detection

K5017
Flush and Surface Ceiling Mount PIR Sensor in one
- For flush mount, spring clips enable ease of installation in ceilings with thickness between 5mm and 20mm
- Simple to switch between flush and surface options
- Surface mount can be fixed direct to the ceiling or on to a circular conduit or BESA box
- All screws and fixings supplied

Dimensions (mm)
Flush Mount (Hole size 75mm to 80mm)

Surface Mount
Simple Fit Switching PIR Sensors

**Description**

MK Simple Fit Sensors offer cost effective presence detection for lighting control in small to medium areas. These one-box solutions are easy to install and commission, also no additional parts are required.

The following versions are available:

- **Flush mounted K5015** – Spring Clips enable ease of installation in plasterboard ceilings
- **Surface Mounted K5016** – Screw and Plug Fixings can be mounted direct to the ceiling or on to a square pattress box (K2160 WHI)

**Features**

- Advanced presence detection by passive infrared (PIR) technology
- Passive photocell holds lights off when area becomes occupied in bright ambient conditions
- Off delay in minutes following the last observed movement after which lights switch off
- Detection pattern and approx range in metres at floor level for 2.5m mounting height (detection pattern is cone shaped).

**Dimensions**

**Specifications**

- **Technology**
  - PIR
- **Maximum Recommended Mounting Height**
  - 1.8m to 3m
- **Range**
  - Cone-shaped detection pattern, 6m radius at 2.5m mounting height
- **Operating Voltage**
  - AC 220~240V / 50Hz
- **Recommended Circuit Protection**
  - 16A
- **Maximum Load**
  - 6A or 1500W fluorescent/incandescent lighting load capacity
- **Photocell**
  - Approx. 30–200 Lux
- **Off Delay**
  - 5sec - 40min
- **Colour**
  - White
- **Material**
  - Flame retardant PC
- **IP Rating**
  - IP20
- **K5015**
  - Depth Required Behind Ceiling: 100mm
  - Weight: 105g excluding cable
- **K5016**
  - Weight: 105g approx
**Description**

A range of high performance switching PIR sensors for dependable switching of lighting loads.

**Features**

- High definition lenses, performance optics and software are all optimised to provide class leading sensitivity and occupancy detection ensuring that the lights are always on when required.
- Superior switching sensors include integral adjustable active photocells which will hold the lights off in occupied areas or switch them off at a given light level.
- Superior switching sensors deliver highly sensitive micro detection diameter of 7m within a 10m macro detection diameter (When installed at a mounting height of 2.5m).
- Colour coded connectors make superior switching sensors easy to install and reduce wiring faults.
- The easy to use K4098 infrared programming tool simplifies sensor set up and commissioning.

**Technical Specification**

**Technology**

<table>
<thead>
<tr>
<th>PIR</th>
<th>Detection Range</th>
<th>10m Macro / 7m Micro at 2.5m mounting height</th>
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**Switching Capacity**

10A (Tungsten 6A)

**Photocell Range (LUX)**

Adjustable 10 to 1000 lux via K4098

**Delay Time Range**

Adjustable 5mins to 40 mins via K4098

**IP Rating**

IP4X

**Supply Voltage**

Mains 230V

**Temperature Range**

0-40 degrees

**Accessories**

K4098 infrared programming tool required to adjust sensor settings

**Flush Mount**

- Ø 87mm
- 73mm
- 75mm
- 17.6mm

**Surface Mount**

- Ø 93mm
- 107.6mm
- Ø 87mm
Description
A range of high performance PIR sensors for dependable control of digital dimming lighting loads.

FEATURES
- High definition lenses, performance optics and software are all optimised to provide class leading sensitivity and occupancy detection ensuring that the lights are always on when required
- Dimming sensors include integral photocells which will hold the lights off in occupied areas or switch them off at a given light level. Regulating photocells enable a constant light level to be maintained through digital dimming
- Superior PIR sensors deliver highly sensitive micro detection diameter of 7m within a 10m macro detection diameter (When installed at a mounting height of 2.5m)
- Automatic detection of DALI and DSI digital dimming type luminaires reduces commissioning time and the potential for errors
- The easy to use K4098 infrared programming tool simplifies sensor set up and commissioning

Flush Mount

Surface Mount
Battenfit Switching PIR Sensor

**Description**
Ideal for retrofit installations, the BattenFit sensor is a simple-to-fit control solution for batten style luminaires which can deliver energy savings of up to 70%.

**FEATURES**
- Advanced presence detection by passive infrared (PIR) technology
- Off delay in hours following the last observed movement after which lights switch off
- Passive photocell holds lights off in bright ambient conditions.
- Active photocell has the capability to switch lights off in occupied areas
- Detection pattern and range in meters under normal operating conditions
- One Switch Manual input to turn luminaires on or off
- Infrared programming enables easy commissioning and re-commissioning via K4058

**Dimensions (mm)**
- Detection pattern is a 360° cone shape. Diameter at floor level = 2.25 x mounting height
- Sensitivity is greater when approaching at a tangent rather than heading towards the centre.
- The squares show the arrangement of the detection pattern. Sensitivity is greater when approaching at a tangent rather than heading towards the centre.

**TECHNICAL SPECIFICATION**
- **MAXIMUM RECOMMENDED MOUNTING HEIGHT**: 5.0m
- **RANGE**: Cone-shaped detection pattern, diameter (at floor level) = 2.4 x mounting height
- **OFF DELAY**: 1 minute – 40 mins
- **PHOTOCELL**: Adjustable 50-5000 lux
- **OPERATING VOLTAGE**: 230V 50Hz
- **RECOMMENDED CIRCUIT PROTECTION**: 10 Amps
- **MAXIMUM LOAD**: 2A
- **COLOUR**: White
- **MATERIAL**: Flame retardant PC/ABS
- **WEIGHT**: 100g
- **IP RATING**: IP65
- **ACCESSORIES**: K4098 Infrared programming tool required to adjust sensor settings

**DETECTION ZONE**
- Detection pattern and range in meters under normal operating conditions
- One Switch Manual input to turn luminaires on or off
- Off delay in hours following the last observed movement after which lights switch off
- Passive photocell holds lights off in bright ambient conditions.
- Active photocell has the capability to switch lights off in occupied areas
- Detection pattern and range in meters under normal operating conditions
- Infrared programming enables easy commissioning and re-commissioning via K4058

**WIRING DEVICES**

**WHITE**
Ultrasonic Sensors

**Features**

- Active presence detection by ultrasonic technology
- Passive photocell holds lights off in bright ambient conditions
- Off delay in minutes following the last observed movement after which the lights switch off
- Detection pattern and range in metres under normal operating conditions

**Dimensions**

**K4030 – Surface version**

The back-box can be secured directly to a hard surface or to a conduit stop end box.

**K4030 – Semi Flush version**

Use a hole saw to drill a 76mm hole into the ceiling tile. The flush ring is designed to clamp the tile between its two halves.

**Description**

Ultrasonic sensors are general purpose, fully automatic, directional presence detectors with photocell. They save energy by switching off lights in unoccupied areas and by holding lights off in occupied areas which have adequate natural light. They use a specially developed ultrasonic radar to monitor the controlled space for movement. This radar is sensitive enough to respond to even very small movements thus ensuring that lights are sustained whenever the controlled space is occupied. If no movement has been detected for a pre-selected period, the sensors switch the lights off until the next visitor is detected.

The sensors control feature a movement detector, photocell and 10 Amp load switching element in one easily deployed housing. The technology has been refined and improved over many years of efficient, reliable service in a wide range of industrial and commercial environments. The latest designs use state-of-the-art miniaturisation to pack the features into a small, attractive yet rugged enclosure which gives full field-of-view adjustment. Detectors are available for surface or semi-flush mounting.

Ultrasonic sensors utilise ultrasonic radar to monitor a space for movement. This involves transmitting an ultrasound signal and examining the reflected signal for frequency variations called “doppler shifts”. The transmitted signal is more quickly dissipated in open space and squeezed out by constraining walls and ceilings. The range of the detector also depends upon the type of movement being observed: for example, walking activity can be observed at a greater distance than the slight hand or body movement to be expected from a person working at a desk. Note that detectors can see behind themselves slightly so must be inset in a storage aisle or corridor application.
**Hand-Held Programming Tools**

**TECHNICAL SPECIFICATION**

**TRANSMISSION METHOD**
Infrared

**RANGE**
15m approx

**BATTERY**
3Vdc CR2032 Lithium Button Cell

**EXPECTED BATTERY LIFE**
3 years

**STORAGE TEMPERATURE**
-25°C to +70°C

**OPERATING TEMPERATURE**
0°C to 40°C

**IP RATING**
4X

**APPROVAL**
CE

**DIMENSIONS**

- K4058: 87mm (H) x 40mm (W) x 7mm (D)
- K4059: 100mm (H) x 50mm (W) x 7mm (D)

**WEIGHT**
20g approx

**Description**

MK sensors* feature a range of programmable parameters which can be adjusted using a simple, low cost hand-held programming controller.

*Not including Simple fit

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**FEATURES K4058**

- 3 simple time-delay settings (5 minutes/10 minutes/20 minutes)
- Presence detection mode
- Absence detection mode
- Enable/disable photocell
- Walk-test feature

**FEATURES K4059**

- 4 simple time-delay settings (5 minutes/10 minutes/20 minutes/40 minutes)
- Presence detection mode
- Absence detection mode
- Enable/disable photocell
- Walk-test feature
- Set regulating light level - when used in conjunction with a suitable lux meter
- Restore button functionality - press & hold reverts to factory default, short press reverts back to last configuration
- Lamp burn-in