

# Motion & Presence Detectors



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the success is in the system

Hager motion and presence detectors are suitable for residential and commercial, indoor and outdoor applications.

They can be utilised to activate security lighting, HVAC systems and they can help to continuously adjust the output from dimmed lighting systems.

This functionality provides energy management improvement and cost benefits over traditionally switched systems. Less greenhouse gas emissions and a better environment for all of us.

The motion detectors on pages 4,5 & 6 will automatically switch lighting when in movement is detected.

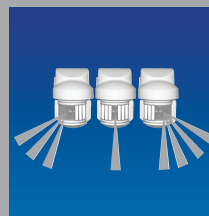
The presence detectors on page 7 will detect the presence of a person, even in a static position and automatically switch lighting.



- Increases your security by dissuading undesirable visitors.
- Improves comfort by lighting your arrival and entry to the premises
- Saves you money by automatically controlling exterior lighting
- And more features... !
  - vertical pivoting
  - horizontal rotation
  - limitation of the detection zone.



The detection zone is adjustable by vertically pivoting the detection head 60° and horizontally by 80°.



Limiting the detection zone by using the blinkers supplied prevents undesirable lighting caused by neighbours, passing cars, etc.

## Motion Detection

## Presence Detection

### Features

- Multiple solutions for a variety of applications
- Pleasant aesthetic designs
- Continuous control of dimmed lighting based on ambient light levels
- IP55 waterproof design

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## Outdoor Motion Detectors

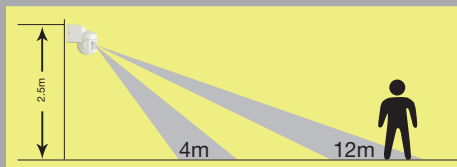
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Infrared detectors for outdoor use



### Features

- Designed for the automatic control of lighting. Typically around the perimeter of the home.
- Easy to install, with any type of mounting: wall, interior angle, exterior angle.
- Adjustable integrated twilight switch function switches off lights when sufficient natural light levels are detected.



### References

Detection angle	Detection range				Ref.
	Front	side	colour	load	
200°	12m	10m	white	1000W	Incand. <b>EE801</b>
200°	12m	10m	black	1000W	Incand. <b>EE803</b>

## Indoor Motion Detectors

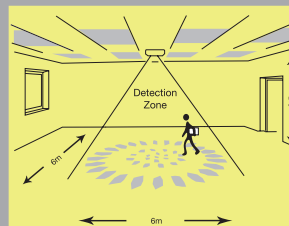
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Infrared motion detectors for indoor use  
ceiling mounted



### Features

- Motion detector for the automatic control of lighting in walk-through or circulation zones. Flush fitting EE805 or surface mounting EE804.
- Adjustable integrated twilight switch function, switches off lights where there is sufficient natural lighting levels.
- Flush version requires a 76mm hole saw. Two spring clips fasten the device. The cable connection area has an in-built protection hood.
- Control of lighting by 10A AC1 potential free contact.
- Mounting in parallel is possible.



### References

Mounting	Detection angle	Detection range	Colour	Load	Ref.
Flush	360°	3m	white	1000W	Incand. <b>EE805</b>

## Indoor Presence Detectors

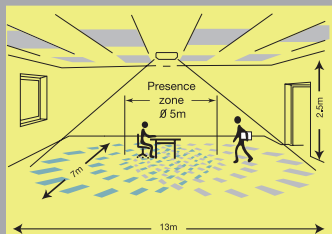
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Presence detectors for indoor use,  
ceiling mounted



### Features

- The double lens of the Hager presence detector offers exceptional standards in infrared detection. Micro movements are sufficient to switch and maintain the light on. They are particularly adapted for controlling lighting in offices, conference rooms, class rooms, etc.
- Lights are inhibited from switching on if there is sufficient natural light within the room.
- Master/slave operation to synchronise several detectors.
- The head can be easily re-oriented allowing the detection zone to be altered to the room configuration.
- The EE812 allows for active control of 1-10V dimmed loads to maintain constant illumination, regardless of lighting conditions
- The EE811 is provided with an extra contact allowing control of heating or ventilation systems. A push-button is used to override this contact.



### References

Mounting	Detection angle	Detection range	Colour	Load	Ref.
semi-recessed	360°	7m x 13m	white	16A ACI	<b>EE810.</b>
semi-recessed	360°	7m x 13m	white	16A ACI	<b>EE811</b>
semi-recessed	360°	7m x 13m	white	580W fluoro*	<b>EE812</b>

\* with electronic ballast

## Installation Tips

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### Motion Detectors vs Presence Detector

Both use PIR technology. Motion detectors require relatively large movements to trigger (a person walking through the detection zone). Motion detectors are suitable to use in indoor and outdoor locations where people will move through the detection zone. Presence detectors have increased sensitivity and are able to register very slight movements (a seated persons head or hand movements). Presence detectors are used indoors where people are usually seated (offices).

The light measuring properties of presence detectors are far superior to those of motion detectors and are suitable for use where active light dimming is required.

### Mounting the detectors

- Mount the detector 2.5m - 3.5m from ground level
- Mount on a stable surface
- The direction of movement should be across the detector and not directly toward the detector.
- Do not place above vents, lights and windows
- Do not place in direct sunlight
- No visual obstructions between the detector head and the detection area
- PIR detectors do not work through glass
- Trees moved by wind may cause unwanted switching. Angle the detection head to avoid moving tree branches.

### Time Delay

- Variable from 5 seconds to 15 minutes (5 minutes for outdoor detectors)
- The timer restarts with each movement detected. The load stays on as long as there is movement in the detection area.

### Large area coverage (multiple detectors)

Motion detectors are typically difficult to set up for this application. Hager presence detectors are specifically designed for this application and have 'master'/'slave' settings.

### Maintenance

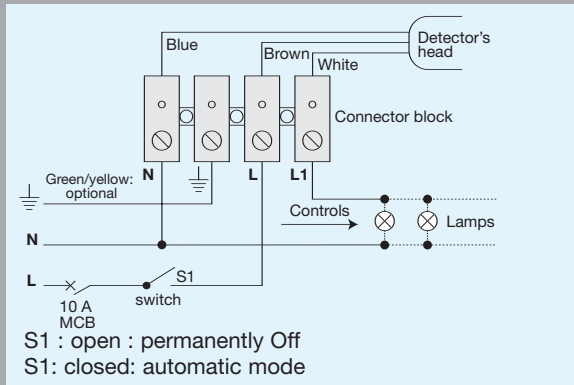
Keep the detector lens area free of dust, spider webs and do not paint this area.

## Wiring Diagrams

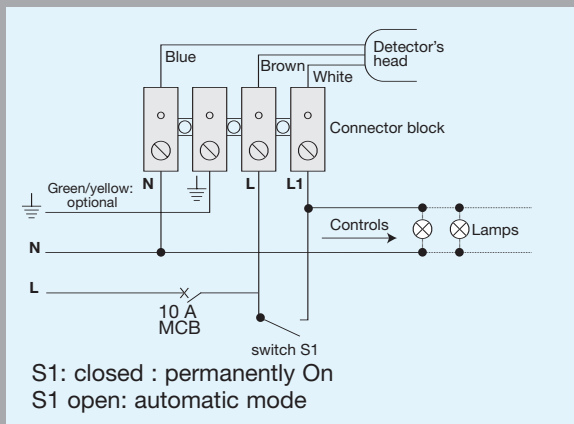
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## EE801 &amp; EE803

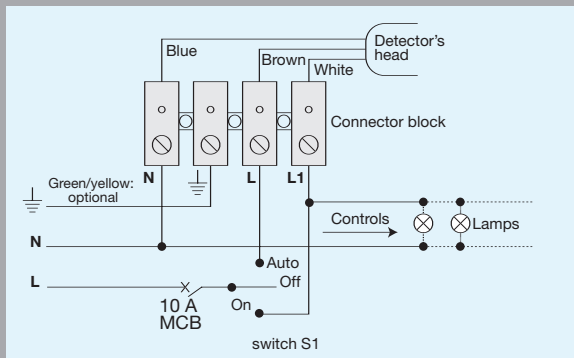
## Auto / Off operation



## Auto / On operation



## Auto / On / Off operation

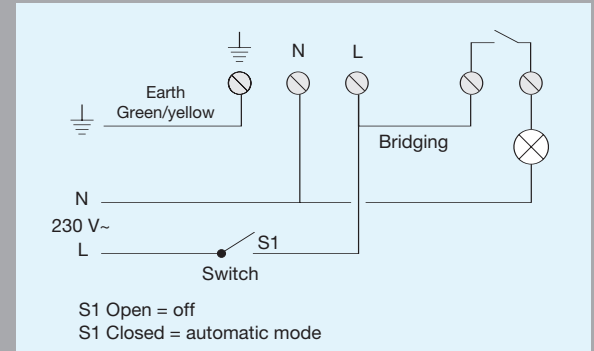


## Wiring Diagrams

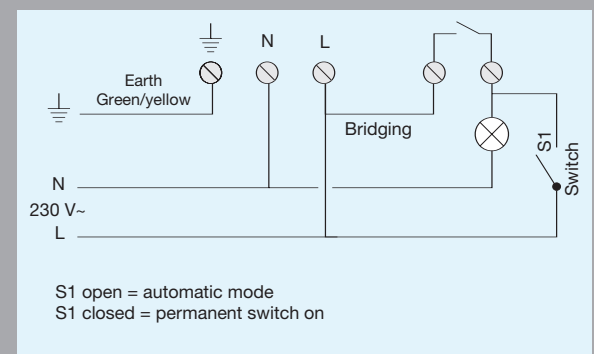
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## EE804 &amp; EE805

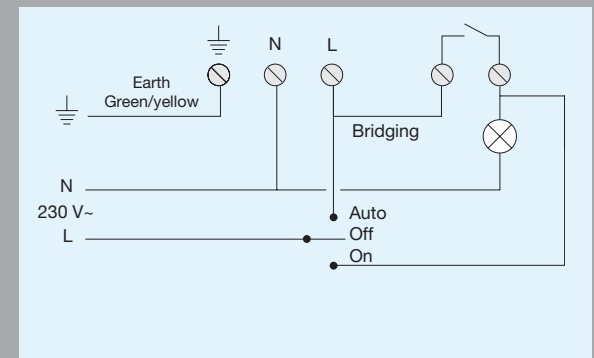
## Auto / Off operation



## Auto / On operation



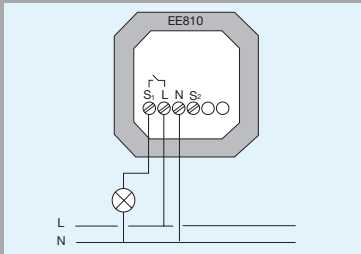
## Auto / On / Off operation



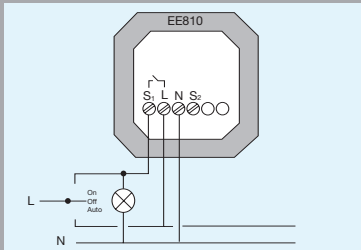
## Wiring Diagrams

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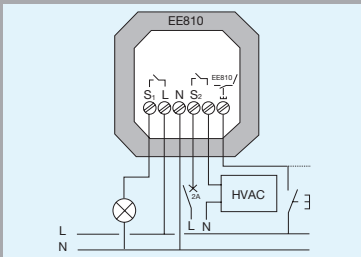
## EE810 stand alone operation



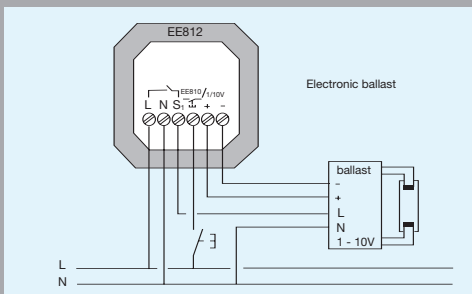
## EE810 Auto / On / Off operation



## EE811 Stand alone operation



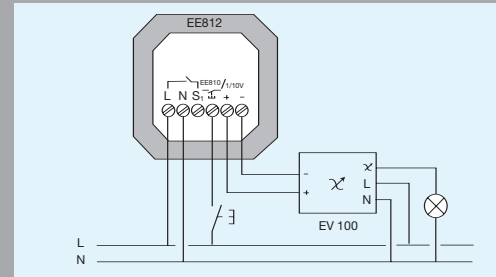
## EE812 with electronic fluorescent ballast



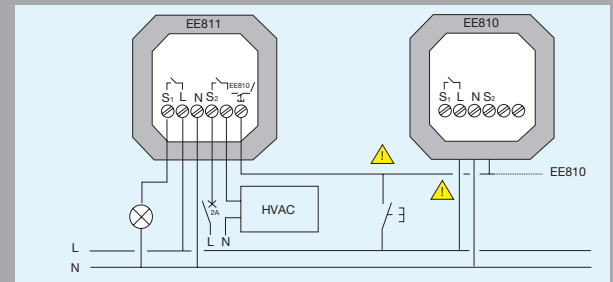
## Wiring Diagrams

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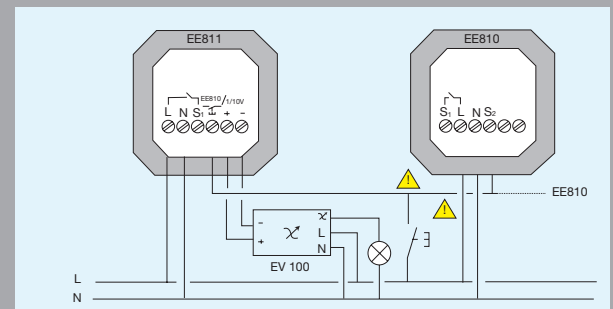
## EE812 with Hager dimmer (EV100)



## EE811 (master) associated with EE810 (slave)



## EE812 (master) associated with EE810 (slave)



⚠ When several detectors are connected together, they must all be connected to the same phase (including push-button)

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