Sensor Manual LedgeCircle®



121967 EN E05 - 1121



PIR | OnOff Page 2-3
PIR | MinMaxOff Page 4
Radar | MinMaxOff Page 5
MinMaxOff | Settings Page 6-8

NB! Please find the manual in other languages on www.defa.com or scan the QR code.

Norsk



Svensk

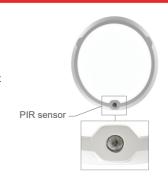




PIR | OnOff

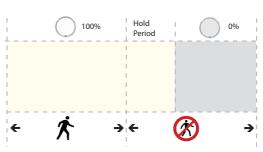
Description

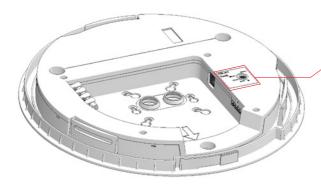
The PIR motion sensor detects motion via the heat emitted as infrared light from people and other heat sources. It has a limited detection range and will not be triggered by objects behind walls or outside windows. This makes fixtures with a PIR sensor ideal for applications where you only want the light to turn on in response to people in the same room and relatively close to the fixture. This sensor has a narrow detection area and is suitable for small rooms like smaller toilets, smaller entrances etc. For some larger rooms we recommend PIR MinMaxOff which has a wider detection range, or for an even longer range Radar sensor.

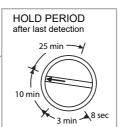


Function

- The sensor turns the light ON to the selected light level when motion is detected.
- The light level can be adjusted on the built in DIP-switch (see settings below).
- The light remains ON for an adjustable Hold Period after the last detection of motion.
- The Hold Period can be set to 25, 20, 10 or 3 minutes, as well as 8 seconds.
- The light turns OFF (0%) if the Hold Period expires with no new detection of motion.
- Note that the sensor will not be reactivated by a person that remains stationary.







The Hold Period can be set in steps from 8-sec to 25-min. The factory setting is 10 min.

LightAdjust settings

Set your desired light level on the built-in DIP Switch.

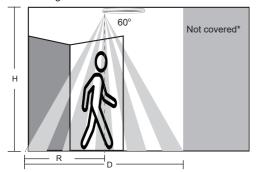
W	lumen out	1	2	3	
4,4	440	0	0	\circ	
5,6	560	0	\circ	lacktriangle	Т
7,2	720	0	•	0	
8,5	850	0	lacktriangle	lacktriangle	
10,3	1030	•	\circ	0	
11,2	1120	•	0		Ψ
12,7	1270	•	•	0	
13,4	1340	•	lacktriangle	lacktriangle	

PIR | OnOff



PIR OnOff sensor/fixture placement

The PIR OnOff sensor has a 60° detection angle. To ensure that the light turns on when someone enters, and to maximize the detection area, the fixture must be mounted at an appropriate distance from the doorway, with the sensor turned towards it. The ideal distance from the doorway depends on the height of the ceiling. The sensor must be unobstructed and should not be used in areas with high temperatures or vibrations in the walls/ceiling.



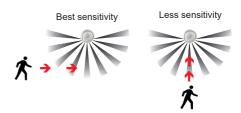
A PIR sensor detects motion by tracking a heat source from one segment of its detection field to another. This means that it is slower to detect motion in a single segment, such as a person moving towards the sensor at a straight angle, than motion across several segments at one side of its detection field. Keep this in mind when mounting the fixture.

Detection Area

Ceiling mounded	H = Height	R = Radius	D = Diameter
	2,5 m	1,4 m	2,8 m
	3,0 m	1,7 m	3,4 m

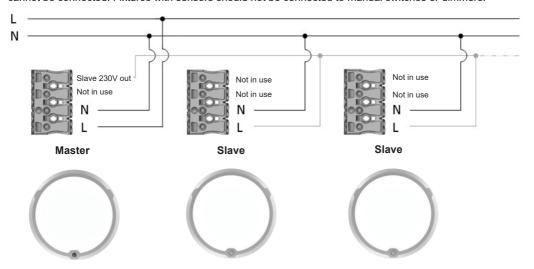


* In rooms larger than the detection area additional sensor fittings are reqired.



Relay output

The PIR OnOff fixture has 230V slave output and can function as a master. The output can drive light fixtures without sensors (slave) or other kind of loads. The output can supply a maximum of 100W. Two master fittings cannot be connected. Fixtures with sensors should not be connected to manual switches or dimmers.





PIR | MinMaxOff

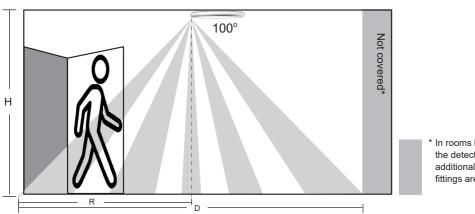
Description

The PIR motion sensor detects motion via the heat emitted as infrared light from people and other heat sources. It has a limited detection range will not be triggered by objects behind walls or outside windows. This makes fixtures with a PIR sensor ideal for applications where you only want the light to turn on in response to people in the same room and relatively close to the fixture. Fixtures with PIR sensors are commonly used in confined spaces like toilets, wardrobes and entranceways. If a wider detection area or longer range is needed, consider using a fitting with a radar sensor.



PIR MinMaxOff sensor/fixture placement

The PIR MinMaxOff sensor has a 100° detection angle. To ensure that the light turns on when someone enters, and to maximize the detection area, the fixture must be mounted at an appropriate distance from the doorway, with the sensor turned towards it. The ideal distance from the doorway depends on the height of the ceiling. The sensor must be unobstructed and should not be used in areas with high temperatures or vibrations in the walls/ceiling.

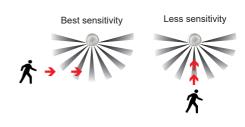


In rooms larger than the detection area additional sensor fittings are required.

Detection Area

	H = Height	R = Radius	D = Diameter
Ceiling	2,5 m	2,5 m	5 m
mounded	3,0 m	3,0 m	6 m
	5,0 m	4,0 m	8 m

A PIR sensor detects motion by tracking a heat source from one segment of its detection field to another. This means that it is slower to detect motion in a single segment, such as a person moving towards the sensor at a straight angle, than motion across several segments at one side of its detection field. Keep this in mind when mounting the fixture.



Radar | MinMaxOff



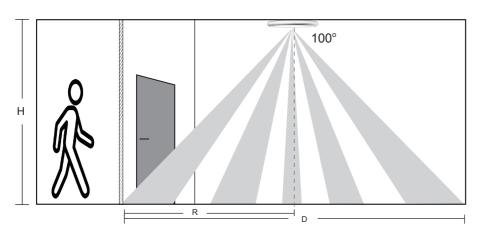
Description

This fixture has a built-in radar sensor. It detects motion by emitting microwaves and noticing shifts in how they are reflected back to the sensor. The radar sensor has a long range and wide coverage and may detect motion through windows and thin walls. This makes fixtures with a radar sensor most suitable for covering large areas or corridors where a PIR sensor would lack range or coverage. Fittings with a radar sensor should not be used in places where they may be triggered by motion in neighboring rooms



Placement of fixtures with a Radar sensor

This sensor detects all types of movement within its detection range.



Please note!

The radar sensor may detect motion through thin walls, doors and windows.

Detection Area

	H = Height	R = Radius	D = Diameter
Ceiling	2,5 m	6,0 m	12 m
mounded	3,0 m	6,5 m	13 m
	5,0 m	5,0 m	10 m

Please note!

- The fitting should be mounted on a firm surface that is not subject to vibrations.
- Two or more fittings should not be placed within detection range of each other.
- Unwanted detection/activation may be caused by movement on the other side of thin walls, windows, water pipes, by reflective surfaces etc.
- Avoid motor drivers & high power cables near the sensor.



PIR & Radar | MinMaxOff

Modes

PIR and Radar MinMaxOff fittings can be set to 3 different modes: OnOff, MinMax or MinMaxOff. The Mode is set by adjusting the Standby Period on the built-in DIP-switch (See page 7) or via remote control (accessory).

Please note!

If you are using the remote control, please read the separate manual. Some options and settings may vary. Link to: Remote Control manual

OnOff

- The light turns ON to the Max level (100%) when motion is detected.
- The light remains ON at the Max level for an adjustable Hold Period after the last detection of motion.
- If the Hold Period expires with no new detection, the light is turned OFF (0%).

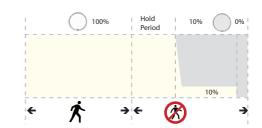
MinMax

- The light is always ON at the selected Min level
- The light level is turned up to the Max level (100%) when motion is detected.
- The light remains ON at the Max level for an adjustable Hold Period.
- If the Hold Period expires with no new detection, the light is turned back down to the Min level.

10% Hold Period 10% 10% 10% 10% 10% → ← ★ → ← ★ →

MinMaxOff

- Light is turned ON to the Max level (100%) when motion is detected.
- Light remains ON at the Max level for an adjustable Hold Period after the last detection of motion
- When the Hold Period expires, the light is turned down to the selected Min level for an adjustable Standby Period.
- If the Standby Period expires with no new detection, the light is turned OFF (0%).



Daylight sensor

- This feature is only available with a PIR sensor.
- When the ambient light level is below the selected threshold. The fixture will function according to your selected mode and settings.
- When the ambient light level is above the selected threshold, the light will turn OFF and the sensor is deactivated.



PIR & Radar | MinMaxOff



DIP-Switch settings

Detection range & sensitivity

The sensitivity of the sensor. (Radar version is always 100%)

* Factory setting = 100%

	1	2		•
I			100% *	↑
П		0	75%	
Ш	0		50%	—
IV	0	0	Off	Ŏ

Hold Period duration

Sets the amount of time you would like to keep the light ON at the Max setting after the last detection of motion.

* Factory setting = 10min.

	3	4		•
I			5 sec	↑
Ш		0	30 sec	$\stackrel{\circ}{\sim}$
Ш	0		3 min	1
IV	0	0	10 min*	Ó

Daylight sensor

This feature is only available with a PIR sensor. This setting adjusts the threshold for when the light should turn OFF. While the ambient light remains above this level, the light will not turn on, even when a person is detected. This feature should always be disabled in fixtures with a Radar sensor

* Factory setting = Off

	5	6		•
1			Off *	↑
П		0	50 lux	
Ш	0		10 lux	T
IV	0	0	5 lux	Ŏ

Mode & Standby Period duration

Sets the amount of time you would like to keep the light on at the selected Min level before it switches OFF.

* Factory setting = 30min.

Modes:

	7	8		•
I			0 sec	↑
Ш		0	10 sec	$\stackrel{\smile}{\sim}$
III	0		30 min	1
IV	0	0	∞	Ŏ

Standby Period Min/dim level

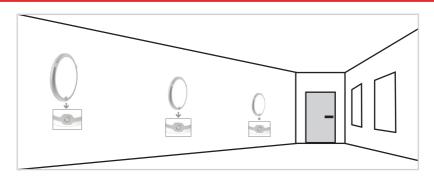
Sets the Min (dimmed) light level of the fitting during the Standby Period.

* Factory setting = 10%

	9		•
I		10 %*	T
Ш	0	30 %	
			Ψ
			0



PIR & Radar | MinMaxOff



Wall mounting details

In applications where the fittings are wall mounted and may be exposed to moisture, the fitting must be mounted with the sensor/sensor marker pointed down. This ensures adequate drainage. Mounting the sensor/sensor marking in the same direction also ensures a better-looking installation.

Master - Master

Up to 10 light fixtures can be linked together through the 230V signal output. The fixture will then send a pulse to activate all other connected fixtures. After activation, each light will behave according to its individual settings. All MinMaxOff versions in the LedgeCircle range have this output and can be used together. Fixtures with sensors should not be connected to manual switches or dimmers.

