

**ENSTO**

ENSTO PXA55  
Radar Motion  
Sensor



# ENSTO PXA55 Radar Motion Sensor Installation Guide

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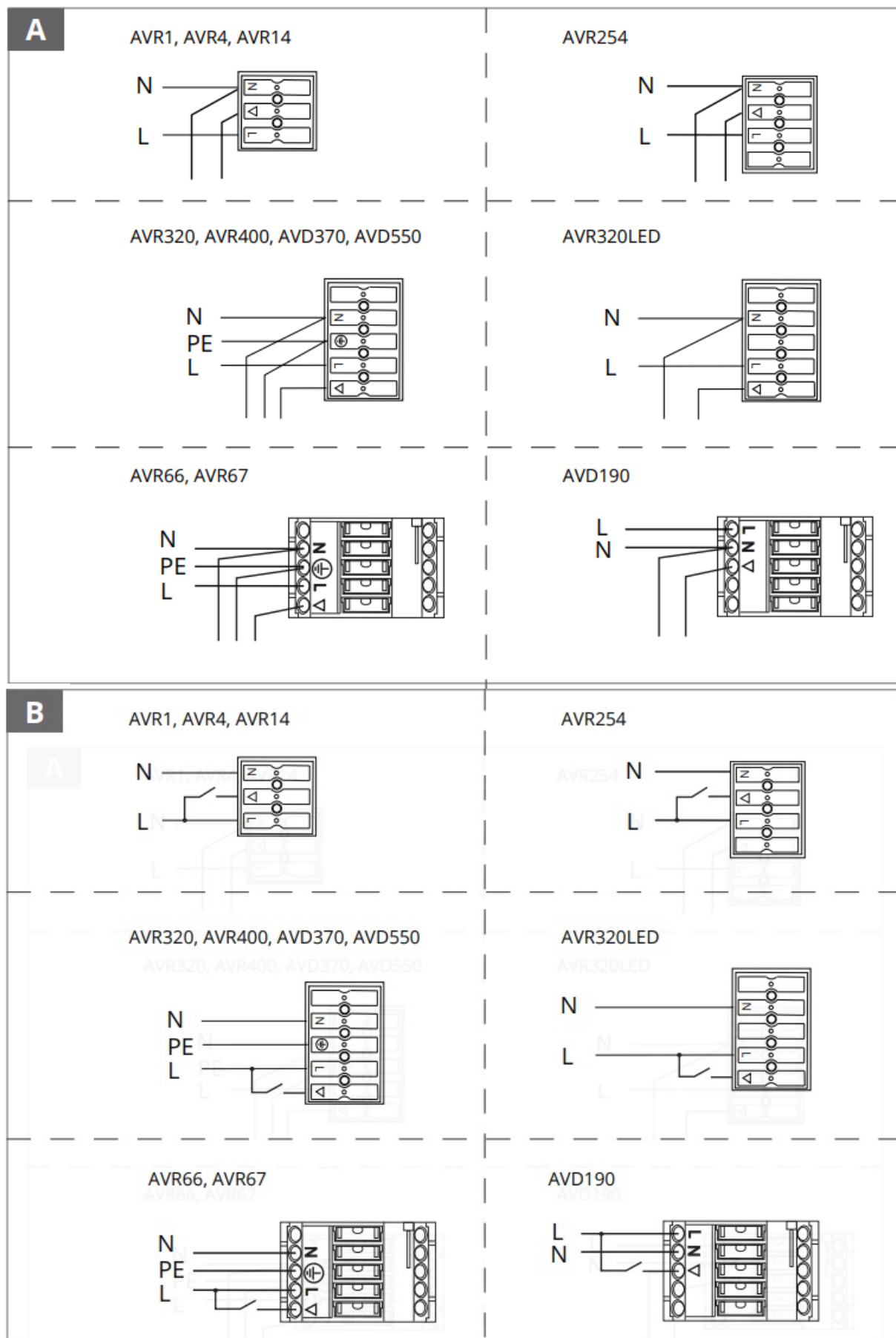
**ENSTO**

**ENSTO PXA55 Radar Motion Sensor**

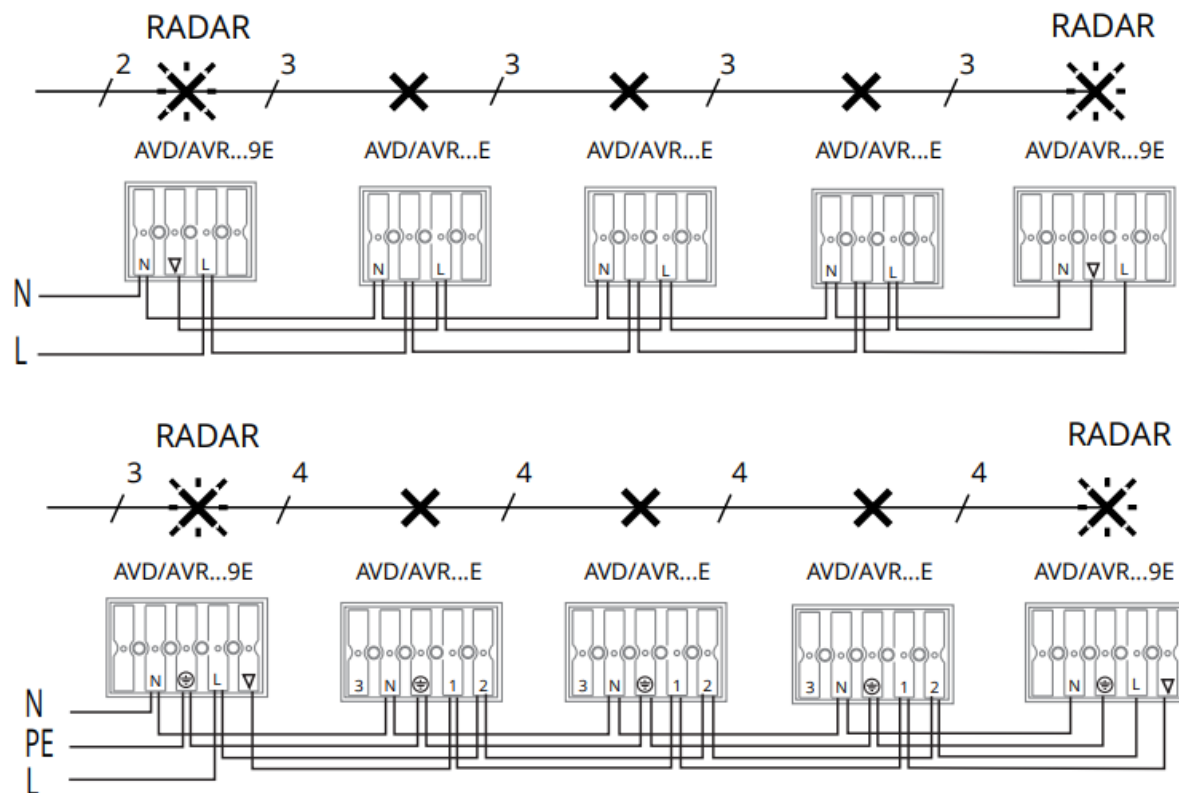


### Specifications

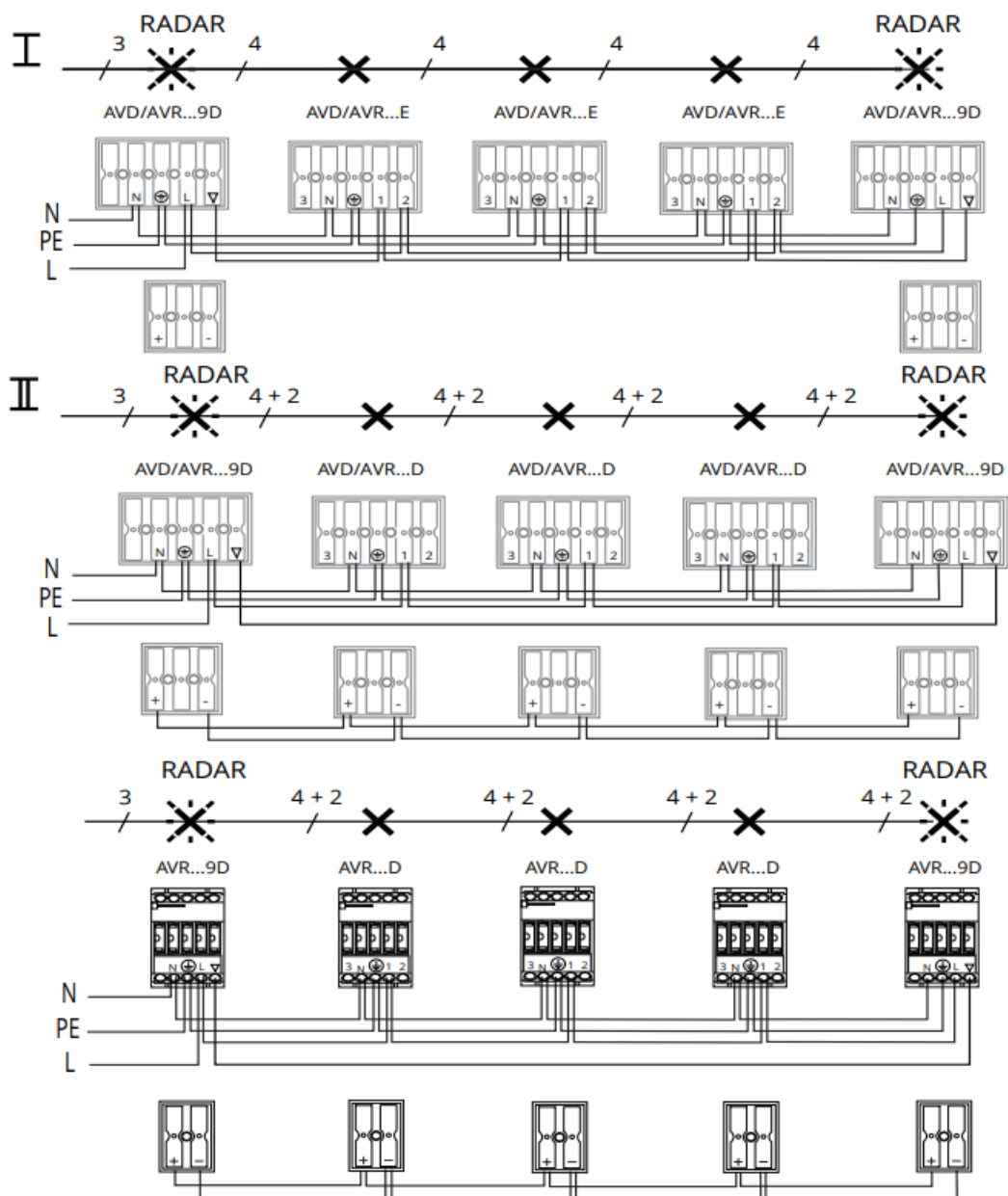
- Input Voltage: L, N: 230VAC A, B: 230VAC
- Frequency: 5.8 GHz
- Frequency Range: 50/60Hz
- Current: 2A
- Lux Range: 1lx – 09
- Time Range: 1-30 min



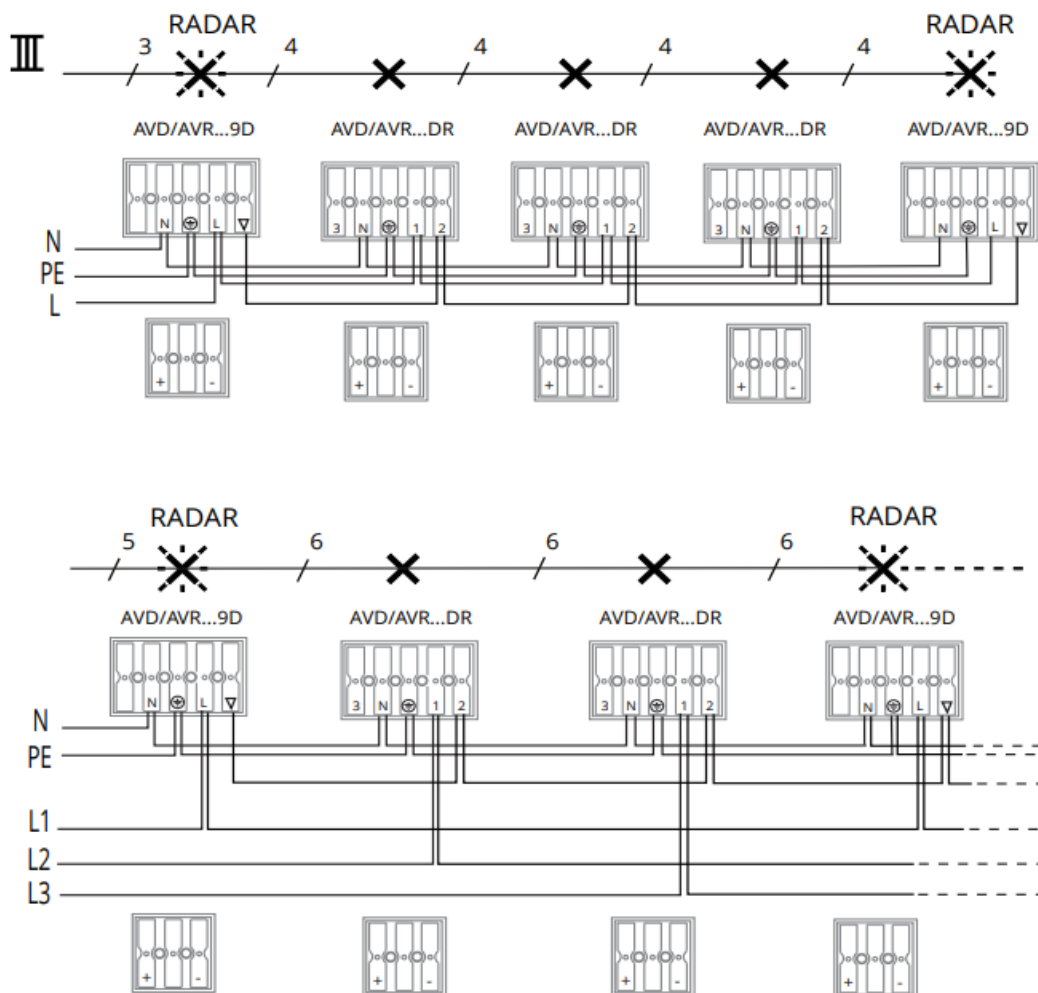
**WIRING DIAGRAM OF RADAR LUMINAIRE AVD/AVR...9E**



**WIRING DIAGRAM OF RADAR LUMINAIRE AVD/AVR...9D**



**WIRING DIAGRAM OF RADAR LUMINAIRE AVD/AVR...R**



THE AVD/AVR...D LUMINAIRES MUST ALWAYS BE EARTHED

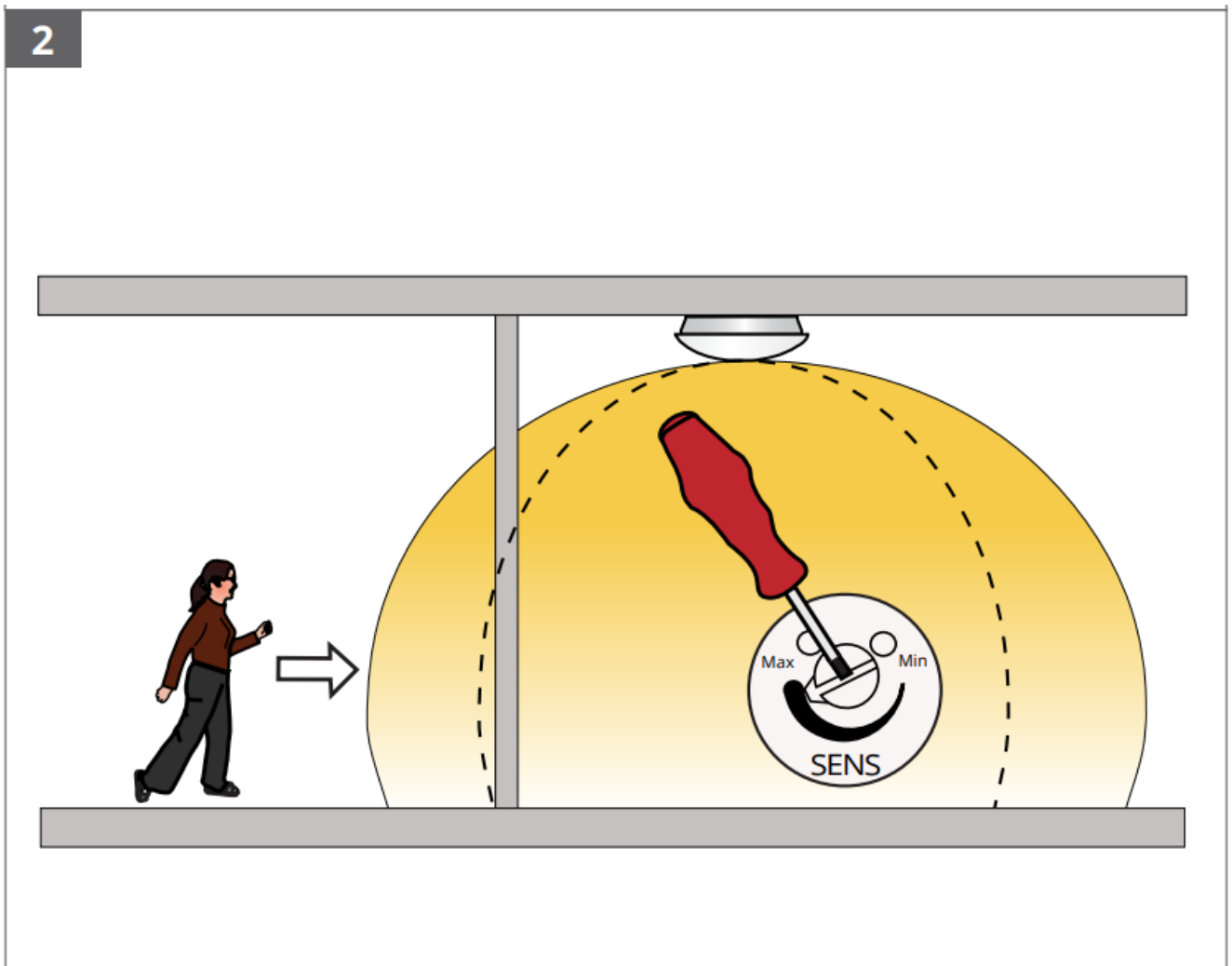
## Installation and Operating Instructions

### Introduction

The luminaire with radar sensor is designed for ceiling mounting at a height of maximum 4 m. It can also be mounted on a wall at a height of 1.7-2.7 m. The light will switch on automatically when a person moves into sensor's detection area.

When choosing the place of installation pay attention to the following:

- Radar sensor can detect movements through thin wall and glass (see picture 2.)



- The luminaire must be mounted on a stable foundation which doesn't vibrate.
- Large metal surfaces can affect the size and shape of the detection area.

## Safety Instructions

### Electrically skilled person

- The installation must only be done by an electrician with the appropriate qualifications.
- This manual is a part of the product and must be stored in a safe location and be available for future installation and service.

### WARNING

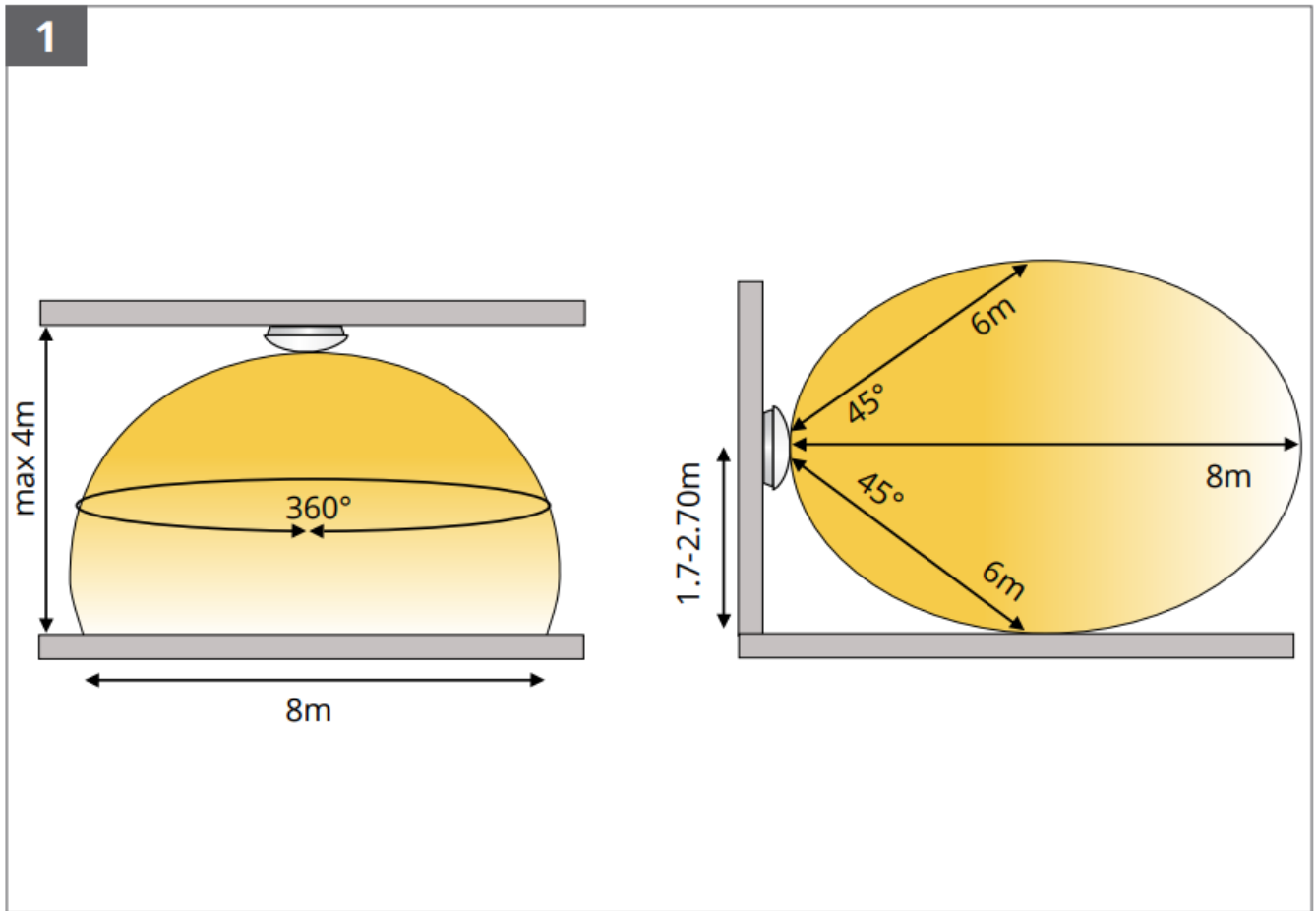
Danger of electric shock! Risk of fire!

- Improper installation can cause personal injury and property damage.
- Switch off the current before installation or service.
- Do not use a defect luminaire.
- Use only a light source and power marked on the luminaire.

### Detection area

The radar sensor's detection area is 360° horizontally and approx. 115° vertically, as shown in picture 1. The detection distance depends on the height at which the sensor is mounted and the angle at which movement occurs.

If the movement occurs across the detection area, it is easy to detect. If the movement occurs directly towards the sensor, the movement emits less heat making it more difficult to detect.



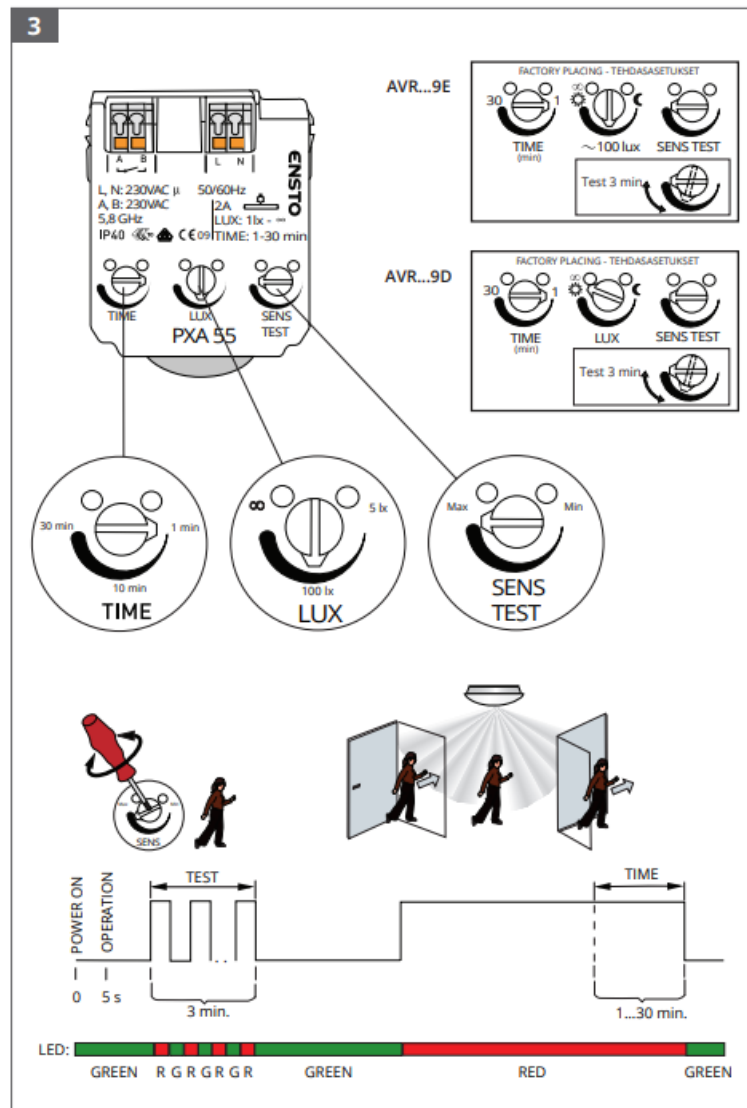
## Operation

After connection to the power supply, or after a power failure, the radar sensor will be functional approx. 3 seconds after its automatic self-test. If movement is detected by the radar sensor after it is functional, it will turn on the luminaire if conditions are dusk enough (see LUX adjustment). The luminaire will switch off when the movement stops and the delay time set on the TIME potentiometer has been reached. The radar sensor's green LED glows dimly when the sensor is ready to operate but has not been triggered. When the sensor is triggered by movement the red LED comes on.

## Settings

Remove the diffuser before you make any adjustments. Make the settings by carefully turning the potentiometer with a small screwdriver. Setting values on the sensor are only indicative, not precise (see picture 3).





## Factory settings

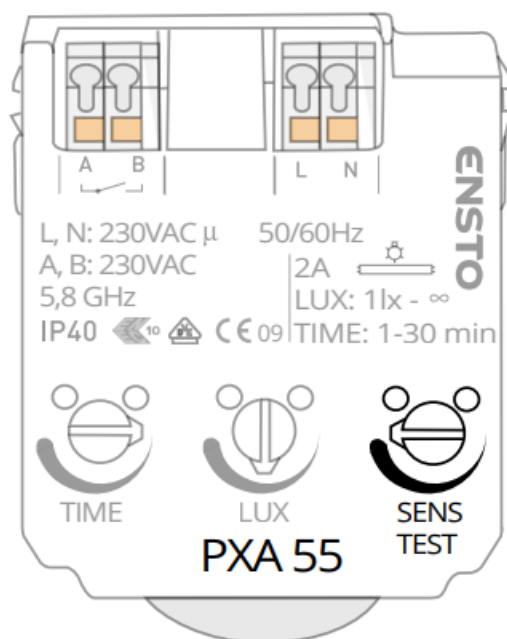
- TIME horizontal setting (approx. 1 minute)
- LUX medium setting (approx. 100 lx) in luminaire models ...9E or max setting (infinity) in luminaire models ...9D
- SENS horizontal setting (set to max.)

## SENS

You can adjust the sensor's ability to detect motion with the SENS potentiometer. This can affect the detection range.

## TEST

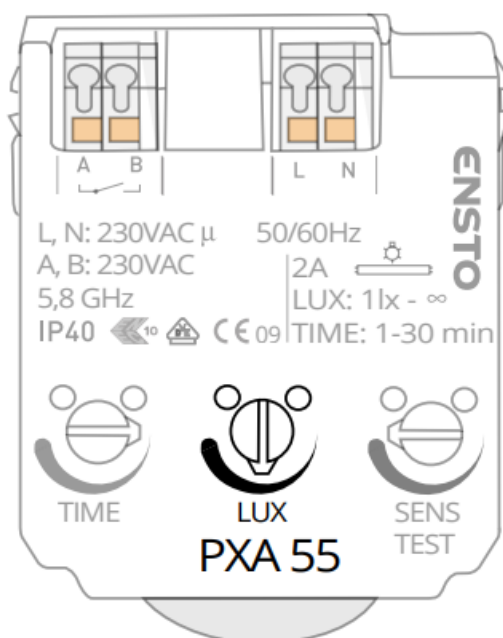
When you turn the SENS potentiometer, the sensor enters the test mode. The test mode lasts 3 minutes from the last adjustment of the SENS potentiometer. The red and green LEDs flash alternately. In test mode, you can test the detection range by walking around in the detection area. When the sensor detects movement, the lighting turns on for about 5 seconds. The sensitivity in the test area is the value shown by the SENS potentiometer. After the lighting turns off, it takes about 2 seconds before the lighting turns on again.



## LUX

The radar sensor always reacts if the illumination is lower than the operating threshold set on the potentiometer (LUX setting). If the LUX potentiometer is turned so that a dim LED (red or green) becomes brighter, the sensor goes into the illumination level setting mode. In the setting mode the sensor switches the luminaire off and it will not come on for approx. 5 seconds. The ambient illumination level is indicated by the LEDs at the point where the green and red LEDs changeover. If the LUX level set is higher than the ambient illumination, the red LED will glow brightly and if it is lower the green LED will glow brightly.

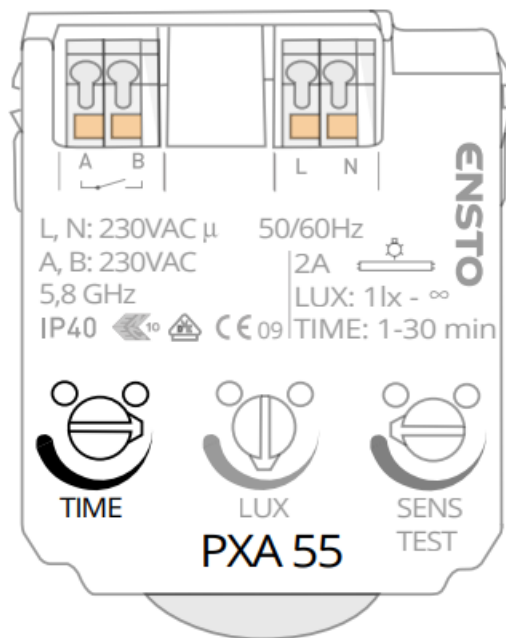
Note. The LUX setting is affected by the angle of the incident light, as also by for example reflection from the setter's clothing. The LUX level can be set between 1lx – infinity.



**Note!** Keep the LUX – potentiometer to max – position (infinity) in the luminaire models ...9D.

## TIME

With the TIME potentiometer you can adjust the operating time of the luminaire after the latest motion detection. The horizontal arrow points to 1 minute. The setting range is 1 min – 30 min.



## Maintenance and trouble-shooting

Switch off the power before maintenance and troubleshooting

- If there is a disturbance in the operation of the luminaire, switch off the mains voltage. After a short while, switch on the mains voltage and check the operation of the luminaire.
- Make sure that the light sources are reliably connected to the lamp holders. If this does not help, replace the light sources. Always switch off the power before you replace the light source! If you replace the light source while the power is on, switch off the power for at least 30 seconds after you have replaced the light source.
- Make sure that the conductors are properly connected to the terminals.
- If the radar sensor does not work properly after the above steps, replace the sensor.

## Technical specifications

- Minimum mounting height 1.7 m.
- Motion detector is active high-frequency radar operating in the 5.8 GHz band, which radiated power is <5mW.
- Power supply 220 – 240 V, 50 / 60 Hz
- Max. external load: 400VA fluorescent lamps or 400W incandescent lamps.
- Detection area: horizontal 360°, vertical approx. 115°
- Sensitivity continuously adjustable between 20 % – 100 % (SENS setting).
- Switch off 1 – 30 min after movement ceases (TIME setting).
- LUX level adjustable between 5 lx – infinity (LUX setting).
- ...9D: LUX – position max (= infinity).
- ...9E: electronic ballast, starting time 1 – 2 s.
- ...9D: dimmable electronic ballast: illumination level approx. 5...10 % when continuously on. This rises to 100 % when the sensor reacts to movement.
- Operating temperature: ...9D models +10 °C – + 25 °C ...9E models – 15 °C – + 25 °C
- Operating modes: automatic operation in dusk, test mode and lux setting mode

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## FAQ


- **Q: What is the maximum distance for detection?**

A: The device has a maximum detection range of 4 meters.

- **Q: How do I perform a factory reset?**

A: To perform a factory reset, refer to the user manual for specific instructions on resetting all settings to default.

## Documents / Resources

|   |  |
|---|--|
|  | <p><a href="#">ENSTO PXA55 Radar Motion Sensor</a> [pdf] Installation Guide</p> <p>55, AVR1, AVR4, AVR14, PXA55 Radar Motion Sensor, PXA55, Radar Motion Sensor, Motion Sensor, Sensor</p> |
|---|--|

## References

- [User Manual](#)

### Manuals+, Privacy Policy

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