



A **Littelfuse** Company

## **ZNCL11 PIR Lens Product Specification**

PS041401-0222



**Warning: DO NOT USE IN LIFE SUPPORT**

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## Revision History

Each instance in this document's revision history reflects a change from its previous edition. For more details, refer to the corresponding page(s) or appropriate links furnished in the table below.

Date	Revision Level	Description	Pages
Feb. 2022	01	Original issue.	All

## Overview

Zilog's Passive Infrared (PIR) lenses are designed to deliver high performance for the most demanding motion detection applications. Each lens is manufactured from high density polyethylene ensuring maximum IR transmissivity with well-defined beam patterns.

The ZNCL11 lens clips directly into the circuit board (PCB) over a TO-5 package PIR sensor, greatly simplifying the mechanical design.

Available in black color, the lens works with dual element PIR sensors and provides 32 detection zones ideal for room occupancy detection and appliance/HVAC power management. It is also suitable as a presence detector for keypad backlights.

## Features

- High density polyethylene construction
- Black color to blend with product design
- Simple mounting – clips directly into PCB over TO-5 package PIR sensor

## Applications

- Room occupancy sensing
- Appliance and HVAC power control
- Keypad presence detection



**Figure 1 - ZNCL11 PIR Lens**

## Ordering Information

Part Number	Features	Typical Applications
<b>ZNCL11</b>	Wall/Ceiling Mount Array 104° (X), 37° (Y) detection area 32 detection zones 4m range Recommended PIR Sensor: Dual Element	<b>Room Occupancy and Proximity Sensing</b> Room occupancy sensing Appliance and HVAC control Keypad/display presence detection Product display's

## Len Material

High Density Polyethylene (HDPE)

## Lens Color

ZNC11 – Black

## Environmental Characteristics

- 1) Operating temperature: -20°C to +70°C
- 2) Storage temperature: -25°C to +75°C

## Mechanical Dimensions

The figure below **Error! Reference source not found.** shows the mechanical dimensions for the ZNCL11 lens. All dimensions are in mm.

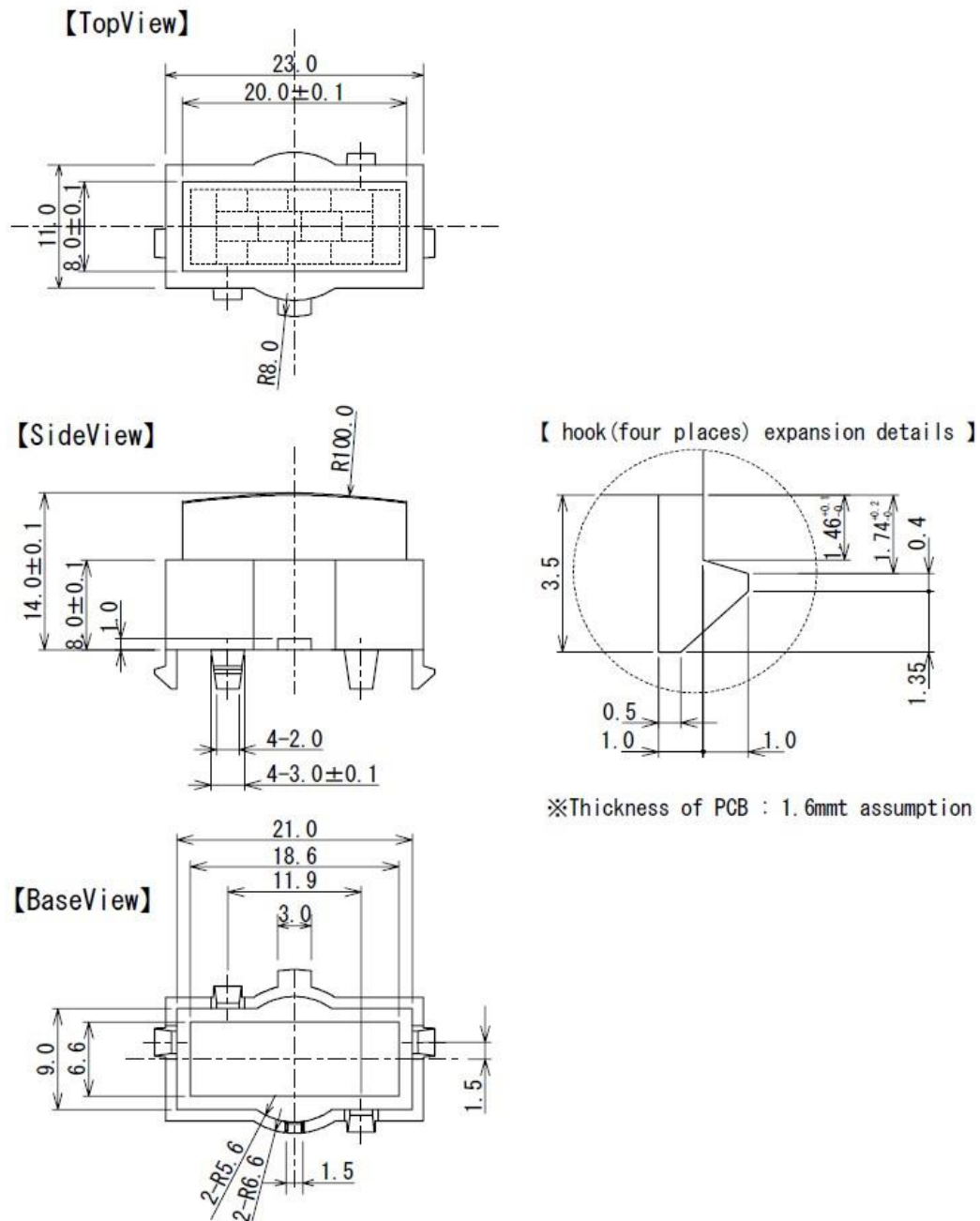
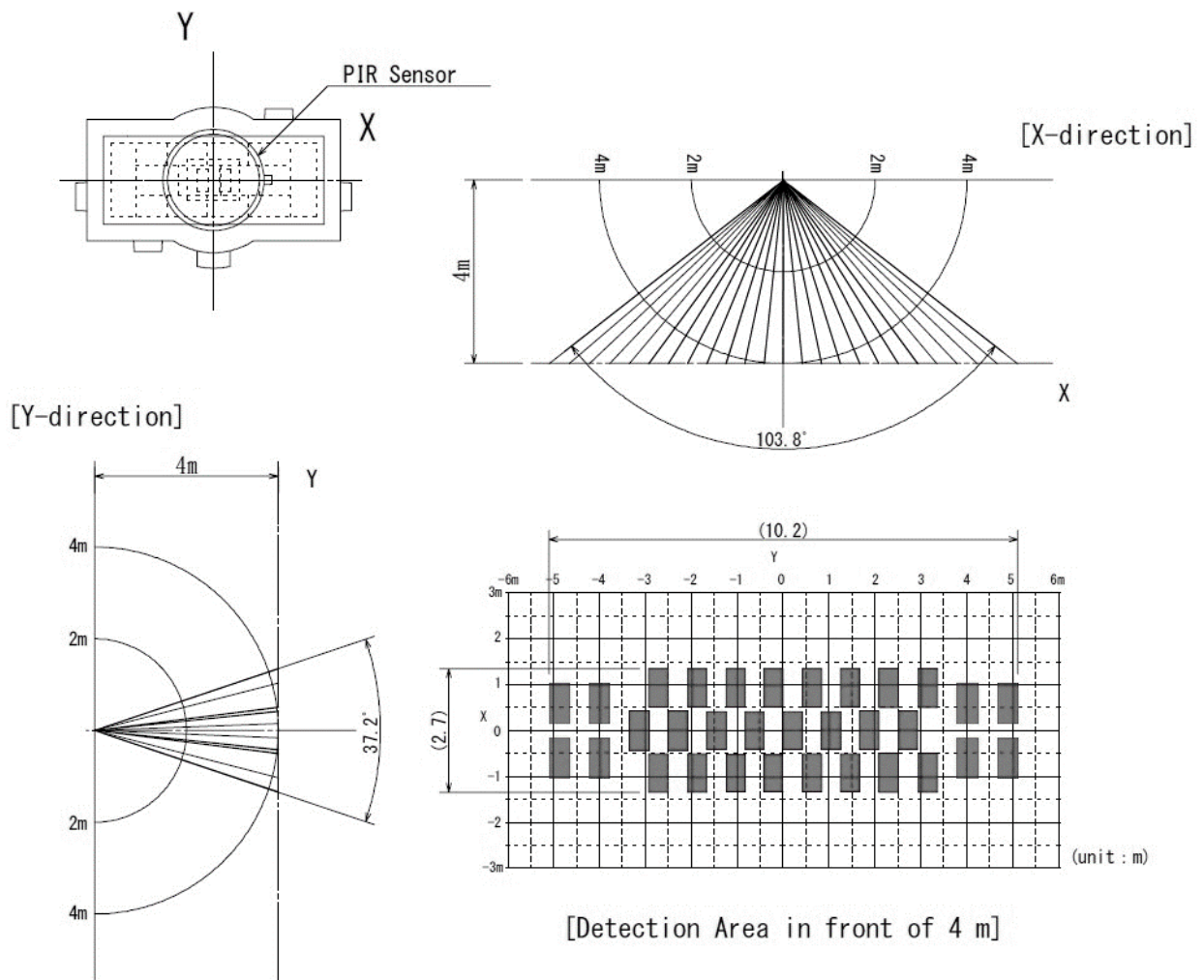


Figure 2 - ZNCL11 Dimensions

## Beam Patterns

ZNCL11 beam patterns are shown in the following figure using dual and quad element PIR sensors. All dimensions are in meters.

**ZNCL11**  
**XY Axis**  
**Dual Element PIR**  
**Element Size: 2mm x 1mm: 1mm gap**



**Figure 3 – ZNCL11 Detection Area with Dual Element PIR**

## Related Documents

The documents associated with the ZNCL11 PIR lens are listed below. Each of these documents, and others can be obtained from the [ZMOTION Product Page](http://www.zilog.com) on the Zilog website: <http://www.zilog.com>.

Document Number	Description
PB0264	PIR Lens Product Brief
PB0258	ZMOTION MCU Product Brief
PS0263	PIR Sensor Product Brief

## Customer Support

To share comments, get your technical questions answered, or report issues you may be experiencing with our products, please visit Zilog's [Technical Support](http://www.zilog.com) page.

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