



A **Littelfuse** Company

ZCWM05GIV1 PIR Lens

Product Specification

PS041501-0222



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 ZCWM05GIV1 lens clips directly into the circuit board (PCB) over a TO-5 package PIR sensor, greatly simplifying the mechanical design.

The lens works with dual element or quad element PIR sensors and is ideal for ceiling mount applications including room lighting control and HVAC power management. The unique beam pattern provides a rectangular floor pattern for office and meeting room motion detection applications.

Features

- High density polyethylene construction
- Simple mounting – clips directly into PCB over TO-5 package PIR sensor

Applications

- Room lighting control
- HVAC power management
- Room entry detection



Figure 1 – ZCWM05GIV1 PIR Lens

Ordering Information

Part Number	Features	Typical Applications
ZCWM05GIV1	Wall/Ceiling Mount Array 360° pattern with 95° x 50° cone Clips directly into PCB Ceiling applications up to 8m height Recommended PIR Sensor: Dual, Circular Dual or Quad Element	Room Occupancy and Proximity Sensing Room occupancy sensing Mid-bay lighting control HVAC Control

Len Material

High Density Polyethylene (HDPE)

Lens Color

ZCWM05GIV1 – Natural (white)

Environmental Characteristics

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

Mechanical Dimensions

The figures below show the mechanical dimension for the ZCWM05GIV1 lens.

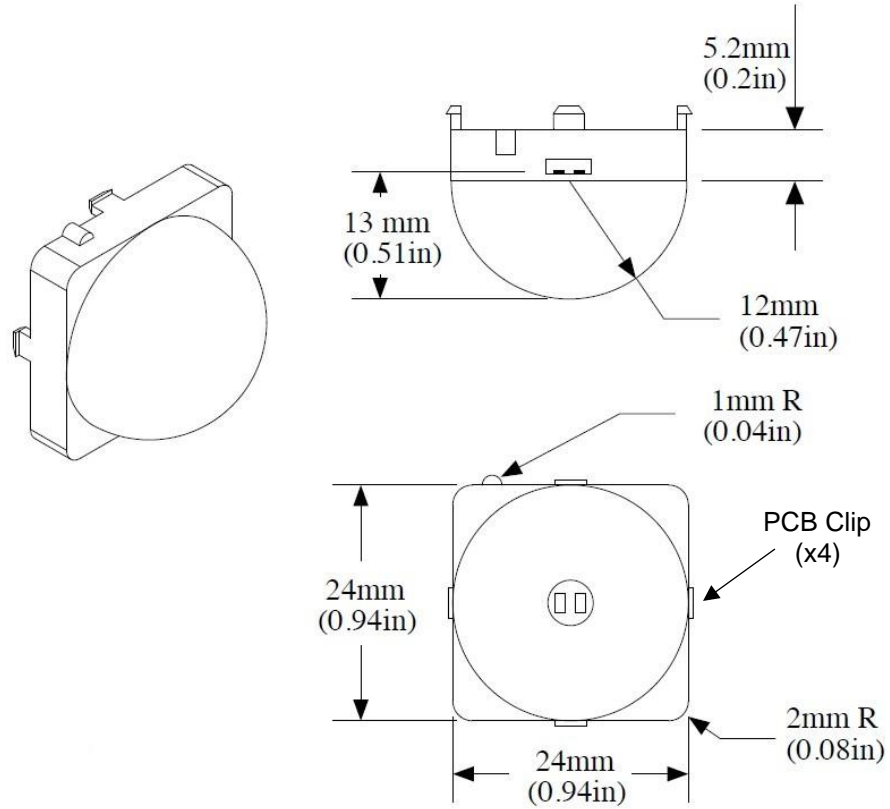


Figure 2 – ZCWM05GIV1 Dimensions

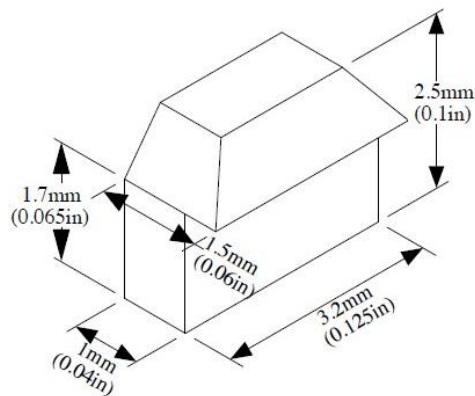


Figure 3 - ZCWM05GIV1 PCB Clip Dimensions

Beam Patterns

ZCWM05GIV1 beam patterns are shown in the following figures. The floor detection pattern is shown using a dual element PIR sensor mounted at a height of 7.6m.

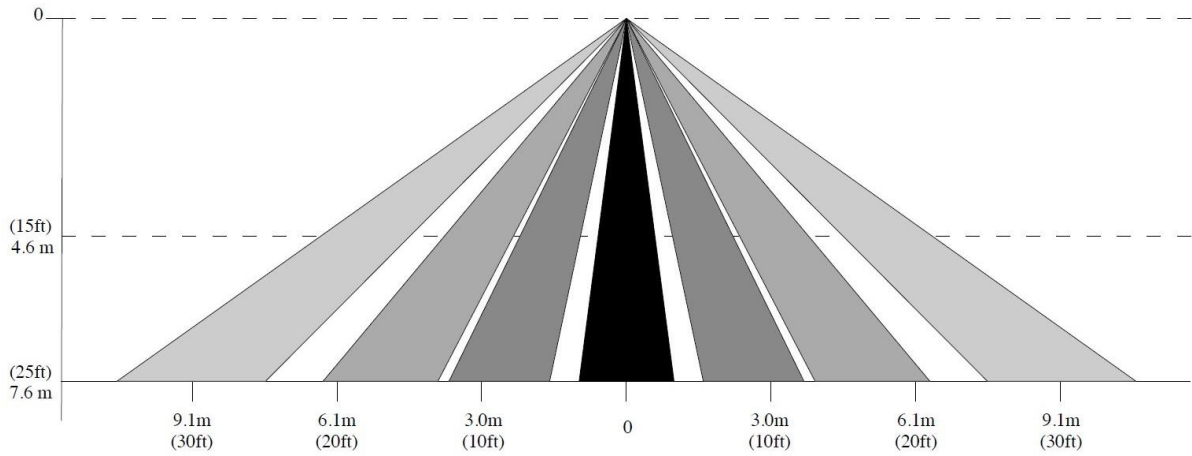


Figure 4 – ZCWM05GIV1 Detection Area

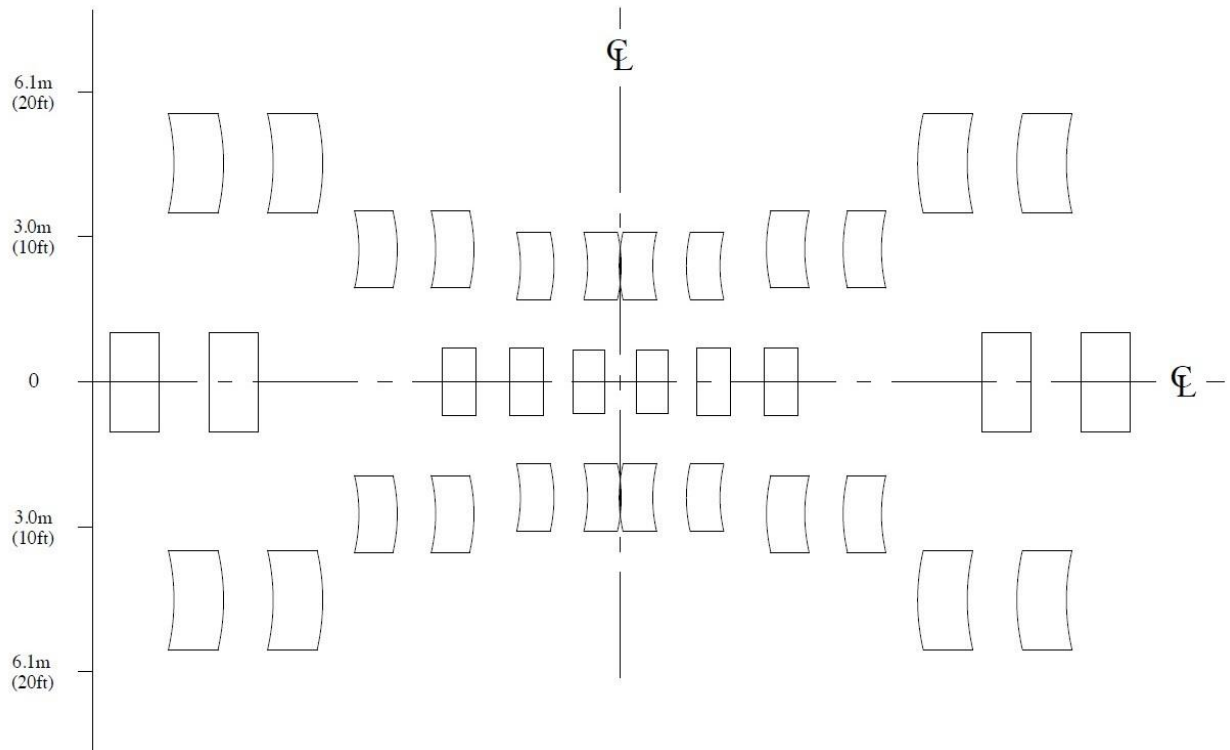


Figure 5 - ZCWM05GIV1 Floor Detection Pattern

Related Documents

The documents associated with the ZCWM05GIV1 PIR lens are listed below. Each of these documents, and others can be obtained from the [ZMOTION Product Page](#) 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

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