

COG-THFL12V

Next Generation Advanced Presence, Human Count & Location Detector



DATASHEET

INTRODUCTION

This flush mounted COG-THFL12V is the next generation of advanced sensing. Utilising the latest innovation in thermal sensing with embedded Artificial Intelligence (AI) it offers world's first 100% privacy protective human count, location detection for real time occupancy data capture. This product includes a programmable radio transceiver for low-data bandwidth, low power IOT mesh networks.

BENEFITS AND APPLICATIONS

- Reduce energy consumption by utilizing highly accurate human occupancy data and thermal mapping of environment for HVAC and lighting optimization.
- Space optimization through granular utilization data and door counting (line crossing count) capability.
- Evacuation support with human presence and hazardous hotspot location data.
- Increase security with tailgate detection for access control and/or intruder detection in non-visible conditions.
- Increase safety with hazardous hotspot and fire location detection.

FUNCTIONALITY

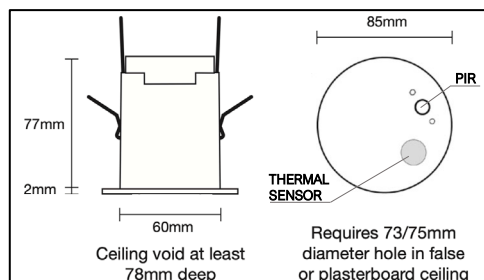
- 100% privacy protective low-resolution thermal sensor with on-edge artificial intelligence integrated behind visually non-transparent white opaque plastic film.
- Programmable radio transceiver for IOT mesh networks.
- Easy installation, configuration and commissioning.
- Ideal mounting height between 2.4m - 4.0m.
- Optional Wi-Fi capability for streaming raw low resolution thermal data.
- 100-240VAC 50/60Hz to 12VDC power adapter optional.
- Conforms with EMC and environmental standards.

FEATURED DATA OUTPUT

- Actual human presence, count and location with 100% privacy.
- People count through/at set line/zone (door counting).
- Hot object count, location and temperature data.
- Thermal mapping of scenery with up to $\pm 0.5^\circ\text{C}$ accuracy.

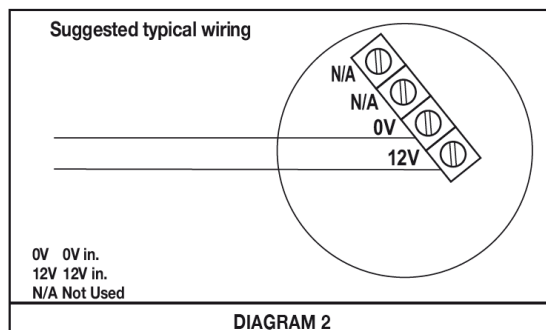
5 YEAR WARRANTY

COG-THFL12V comes with a 5 year warranty from the date of manufacture and is CE marked.



TECHNICAL DETAILS

INPUT	
Voltage:	12 VDC
Max. mains current @ 240V: (Wi-Fi streaming disabled)	<10 mA
OUTPUT	
Output:	Not Used
Output current:	Not Used
OPERATING CONDITIONS	
Note: The temperature difference between the detection target and the background must be at least 0.5°C (Thermal Sensor) and 4°C (PIR)	
Ambient temperature:	0... $+40^\circ\text{C}$
Storage temperature:	$-10... +50^\circ\text{C}$
Max. relative humidity:	0... 80%, non cond.
THERMAL SENSOR	
Resolution:	28 x 15 IR pixels
Spectral detection range:	8...12 μm (LWIR)
Field of view:	X: 140° , Y: 100°
Framerate	4 Hz
RADIO TRANSCEIVER	
Operating frequencies:	2.4... 2,480 GHz
Max. output power:	+4 dBm
MECHANICAL DATA, CONNECTORS	
Dimensions:	79mm x 85mm x 85mm
Weight:	97g (unpacked)
Material (casing):	Flame-retardant polycarbonate
Degree of protection / class:	IP40, Built-in Class 2
Finish / Colour	Matt /White (RAL 9003)
Terminal block wire size:	0.5mm ² - 2.5mm ² solid or stranded
Wire strip length:	6...7 mm



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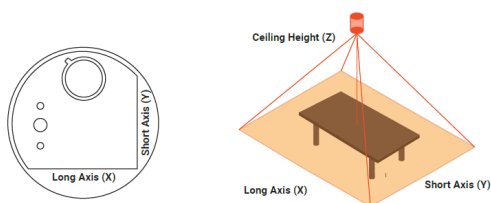


DATASHEET

Danlers Orientation Guide

Optimal location of the Sensor - Occupancy

For occupancy applications, ensure that the sensor is installed with the long axis directly parallel with the long axis of the room, and the long axis of any furniture (E.g. Boardroom table).

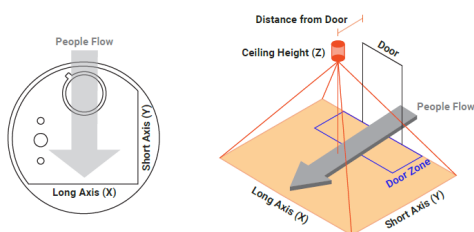


Ceiling Height (Z) [m]	Long Axis (X) [m]	Short Axis (Y) [m]	Distance from Door [m]
2.0	6.0	3.0	0.75
2.5	7.0	4.0	1.0
2.7	7.5	4.5	1.125
3.0	8.0	5.0	1.25
3.5	9.0	6.0	1.5

Danlers Orientation Guide

Optimal location of the Sensor - Door Counting

For door counting applications, ensure that the sensor is installed directly in line with the centre of the door, and at the correct distance from the threshold.

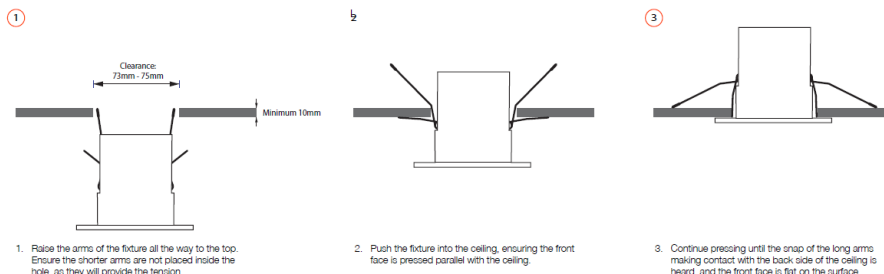


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Physical Installation of the Sensor Housing

Ensure the hole in which the sensor is to be mounted is between 73mm and 75mm in diameter, and that the material the hole has been drilled into is greater than 10mm. The ceiling void must be at least 78mm deep



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