

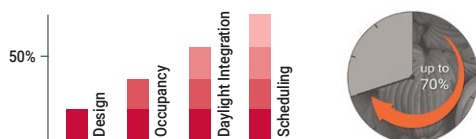
# MPAD-C-DALI-230V

Ceiling mounted microwave presence/absence detector DALI / DSI dimming

## Key Features

- Microwave Sensor: Detects movement within the unit's detection range, allowing load control in response to changes in occupancy.
- IR Receiver: Receives control and programming commands from an IR (infrared) handset.
- Light Level Sensor: Measures the overall light level in the detection area.
- Status LEDs.
- Power Input & Switched Output Connector (Channel 1): Used to connect mains power to the unit and to connect a switched load.
- Dimmable Control Output Connector (Channel 2): Used to connect DSI/DALI controllable ballasts and transformers for dimmable loads.
- Switch Input Connector: Two input terminals can be used to manually override the dimming levels and override the lights on or off.

## Achievable Energy Savings



## Code Compliance

- Improves BREEAM & LEED scoring for building sustainability.
- Contributes to energy reduction targets under Climate Change Levy (CCL) and Carbon Reduction Commitment (CRC).
- Qualifies for Enhanced Capital Allowance (ECA) applications.
- Delivers lighting control requirements under UK Building Regs - L2a & L2b and BRE: 498.



## Overview

The MPAD-C-230V is a mains voltage powered, ceiling mounted microwave presence/absence detector which provides automatic control of lighting loads with optional manual control. MPAD-C-230V detects movement using a highly sensitive microwave detector. This works by emitting low power microwave signals and measuring the reflections as the signals bounce off moving objects.

Output Channel 1 comprises a mains voltage relay capable of simple on/off switching, while Output Channel 2 provides dimmable control of either DALI or DSI type ballasts.

This unit can operate both in presence and absence mode as well as in response to ambient daylight levels.

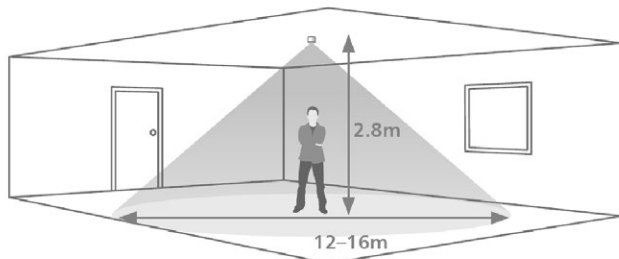
The flexibility of having two channels and two switch inputs allows the following example scenarios:

- Dim an outside row of luminaires whilst internal fittings are switched
- Provide absence detection for two separate channels
- Maintained illuminance system with manual up/down controls

Consult manual for further instructions.

All functionality is fully programmable using an IR handset (ordered separately).

## Detection



Area of high sensitivity  Area of lower sensitivity 

Ideal for larger offices, classrooms and commercial spaces.

Maximum recommended mounting height: 3m

## Technical Specifications

Weight: 0.15kg

Supply Voltage: 230VAC +/- 10%

Frequency: 50Hz

Maximum Load Channel 1 (switching): 10A of lighting and/or ventilation including incandescent, fluorescent, compact fluorescent, low voltage (by switching the primary of transformer). Derate load for LED in line with manufacturers instructions.

Channel 2 (dimming): Maximum number of DSI or DALI ballasts is 10 unless the relay is disabled, then it is 20.

Power consumption On 1100mW, Off 664mW

Dimming output Basic insulation only. Although low voltage, this is not an SELV output and should be treated as if mains potential. Use mains rated wiring.

Terminal Capacity: 2.5mm<sup>2</sup>

Temperature: -10°C to 50°C

Humidity: 5 to 95% non-condensing

Material (casing): Flame retardant ABS and PC/ABS

Type: Class 2

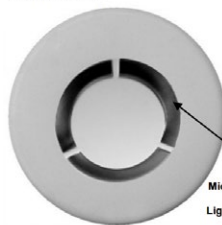
Microwave frequency: 5.8 GHz

Safety: The microwave radiation emitted by these units is extremely low power and complies with ANSI standard "IEEE C95.1-1999 Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields 3kHz 300GHz."

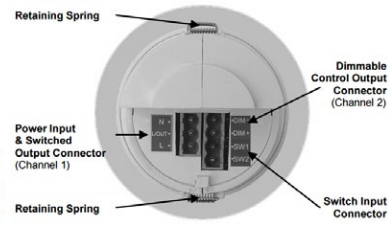
IP rating: IP40

Compliance: EMC-2004/108/EC LVD-2006/95/EC

## Front features



## Back features



## Sensor functionality

### Detection Mode

The Detection Mode can be set to behave in Presence or Absence mode:

- Presence: When movement is detected the load will automatically turn on. When the area is no longer occupied the load will automatically switch off after an adjustable time period.
- Absence: The load is manually switched on. When the area is no longer occupied the load will automatically switch off after the adjustable time period has elapsed.

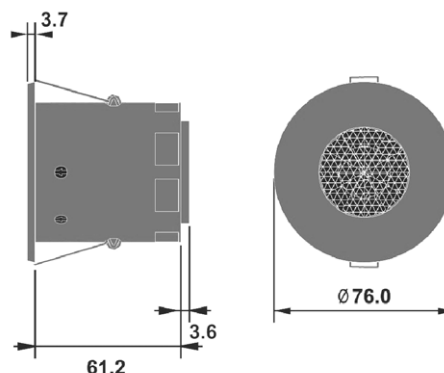
In either case, sensitivity to movement of the Microwave sensor can be adjusted using the Sensitivity parameter.

HINT: To assist in setting the Sensitivity, turn on the Walk Test LED which will flash red when movement is detected.

### Switch Level On/Off

- Occupancy detection can be made dependent on the ambient light level using the Lux On Level and Lux Off Level parameters.
- Maintained Illuminance (daylight harvesting)  
The detector measures the overall light level in the detection area and calculates the correct output for the luminaires, to achieve a preset lux level (maintained illuminance or daylight harvesting).

## Dimensions



## Accessories

SB-C: Surface Mounting Box

SB-C-EX: Surface Mounting Box Extender

## Remote Control Programmers (ordered separately)

HHIR-PROG: Hand held IR programmer control

HHIR-LCD-PROG: Advanced IR programmer with LCD display

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