DINUY DM TEC 1BG Ceiling Motion Detector Installation Guide

Contents

DINUY DM TEC 1BG Ceiling Motion Detector

Product Information

Technical Specifications

- **Power supply:** 230V
- **Own Consumption:** Based on the model
- **Charge LED:** Yes
- **Incandescent lamps:** Supported
- **Halogen lamps:** Supported
- **Halogen + electronic transformer:** Supported
- **Halogen + ferromagnetic transformer:** Supported
- **Fluorescent:** Supported
- **Relay status:** NO or NC
- **Detection angle:** Adjustable
- **Detection field:** Adjustable
- **Brightness Level:** Adjustable
- **Timing:** Adjustable
- **Sensitivity:** Adjustable
- **Protection:** Weatherproof
- **Working temperature:** Based on the model

Product Usage Instructions

- **Installation**
  1. Ensure the power supply is 230V.
  2. Mount the unit in a suitable location with the desired detection angle and field.
  3. Connect the appropriate lamps or transformers based on your setup.
- **Adjustments**

  Use the provided controls to adjust the brightness level, timing, and sensitivity according to your preferences.
- **Maintenance**

  Regularly clean the unit and ensure it is free from any obstructions that may affect detection.

- **Troubleshooting**

  If the unit malfunctions refer to the user manual for troubleshooting steps or contact customer support.

Frequently Asked Questions

Q: What should I do if the detection range is too short?

A: Try adjusting the detection angle and sensitivity settings to increase the range.

Q: Can this product be used with LED lamps?

A: This product is designed for use with incandescent, halogen, and fluorescent lamps. Consult the user manual for compatibility with LED lamps.

Q: What is the recommended working temperature for this product?

A: Refer to the product specifications for the recommended working temperature range.

TECHNICAL SPECIFICATIONS

Power supply	230V~ ±10% ~50/60Hz
Own Consumption	<1W
Charge	16A cos φ = 1
LED	400W
Incandescent lamps	3.000W
Halogen lamps 230V	3.000W
Halogen + electronic transformer	3.000W
Halogen + ferromagnetic transform er	2.400W
Fluorescent	1.300W (130µF)
Relay status NO or NC	Select from DINUY Configure APP
Detection angle	Circular, 360º
Detection field	360º in a maximum of Ø7m with 2,5m height and 18ºC
Adjustments	DINUY Configure App
Brightness Level	5 to 2000Lux, or Disabled
Timing	1 seg. till 60 minutes
Sensitivity	5 values are adjustable through DINUY Configure App
Protection	IP40, Class II
Working temperature	–10ºC .. +45ºC

CHARACTERISTICS

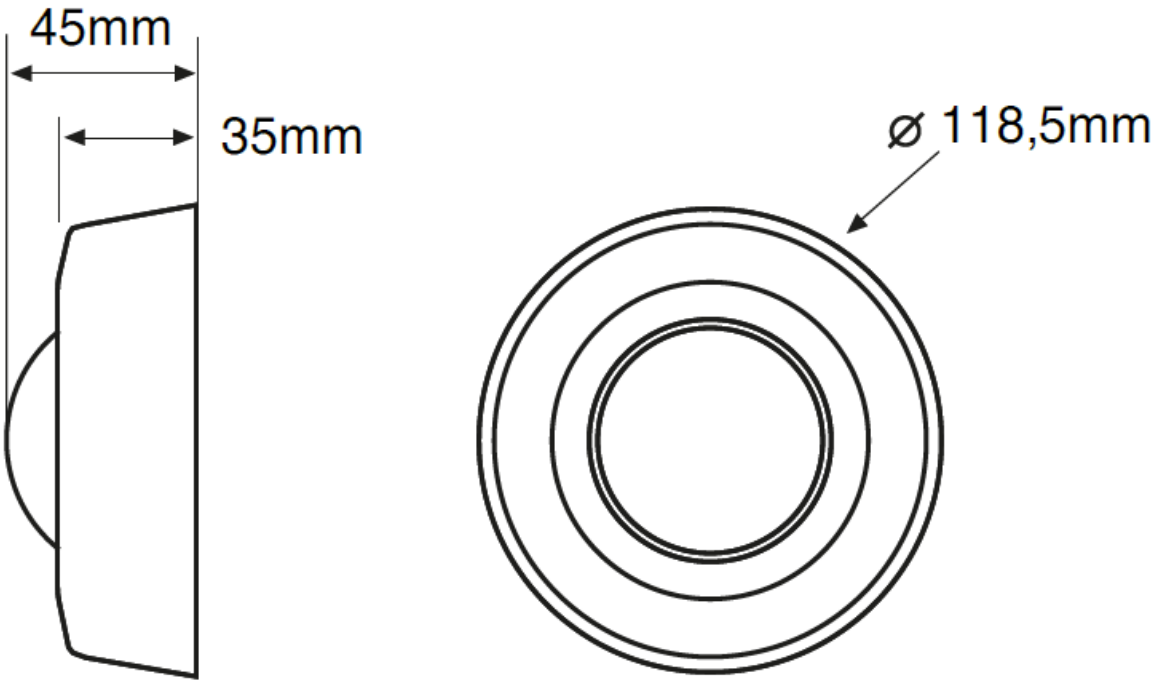
- “3 in 1” indoor detector, for ceiling surface mounting with the following operating modes:
  - Motion Detector;
  - Presence Detector;
  - Twilight Switch.
- It has a switching channel with a 16A relay.
- ZCT (Zero Crossing Technology), which allows to protection of the contactors of the relay and manages high loads.
- Highly sensitive PIR sensor, which detects the slightest movement within its coverage area.

- It incorporates a red LED indicator that helps test the correct motion detection of the device.
- It incorporates a blue LED indicator to identify that the detector is Bluetooth-enabled.
- Configuration and adjustment through the DINUY CONFIGURE App.

FUNCTIONING

- This multifunction detector can be configured in any of the following operating modes
  - **Motion Detector:** Detects small movements based on the temperature difference and measures the brightness only when the luminaire is off. Once the luminaire is switched on, it will not be switched off until there are no people present.
- **Typical application examples:** Transit areas, and corridors.
  - **Presence Detector:** Detects small movements based on the temperature difference and measures luminosity constantly. Typical application examples: Work areas and constant presence. Offices.
  - **Twilight Switch:** Lighting control based on the amount of exterior lighting.
- **Typical application example:** Areas affected by exterior lighting.
- This detector automatically switches the lighting based on the detection of the slightest movement of people and the level of natural light.
- The possibility of connecting several detectors in parallel makes it possible to expand the area to be covered in a single lighting line.
- In Presence Detector mode, while the lighting is on due to the presence of a person within its coverage area, the sensor will compare the measured natural light with the setpoint set in the configuration (Brightness Parameter):
  - If the natural light is below the set Brightness setting, the timing will reset when new movement is detected and the lighting will continue.
  - If the natural light is above the Brightness setting, the timer will not reset when new movement is detected and the lighting will turn off when the time set in the Timer expires.

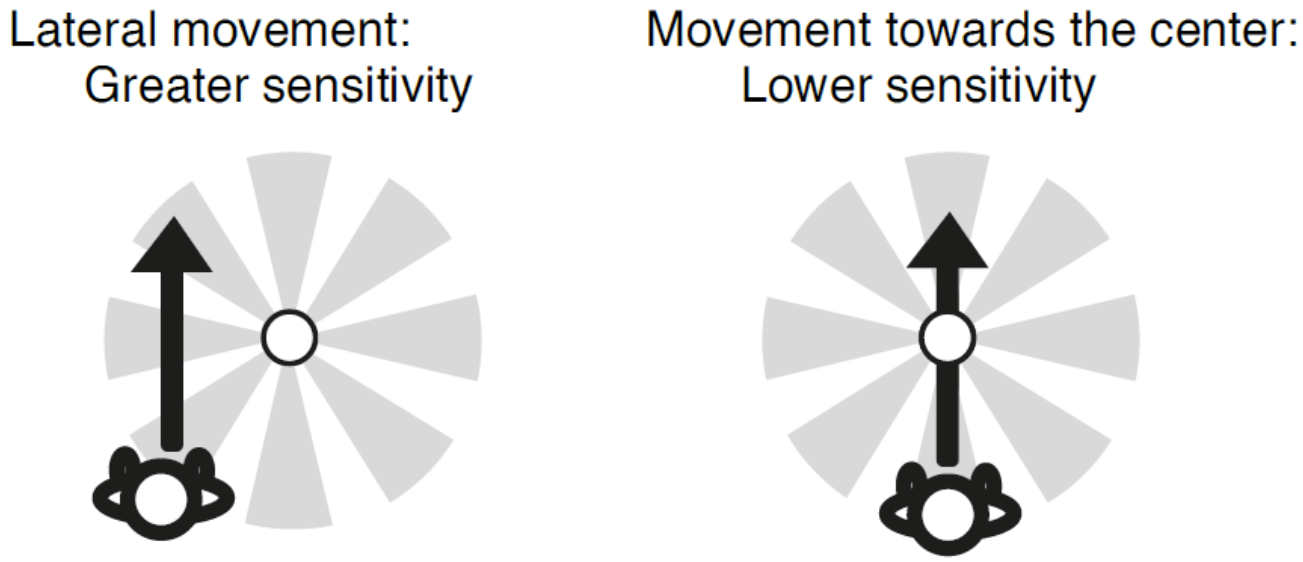
DIMENSIONS



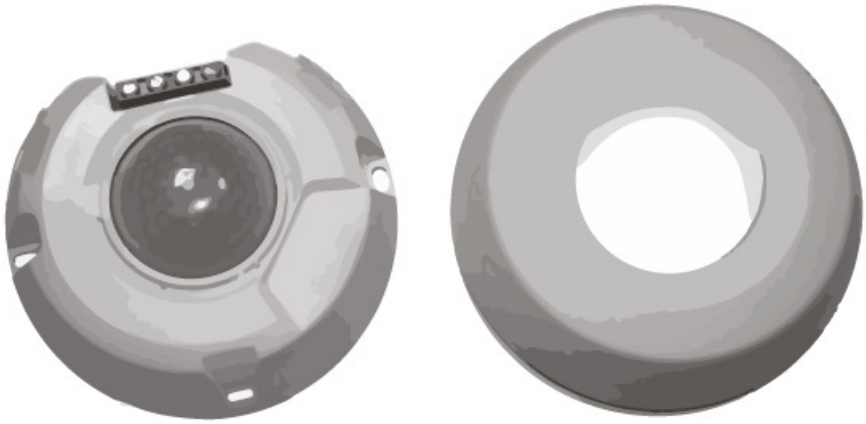
MOUNTING

Choice of location:
Since the detector responds to temperature changes, please avoid the following conditions:

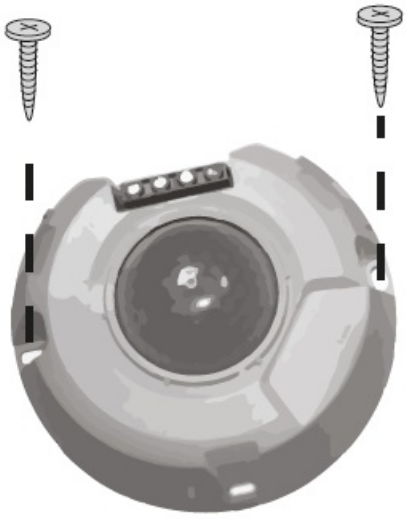
- Avoid pointing the detector towards areas or objects whose surfaces are highly reflective or subject to rapid changes in temperature.
- Avoid mounting the detector near heat sources, such as convectors, air conditioners, dryers…
- Do not direct the detector towards light sources.
- Avoid directing the detector towards objects that move with the wind, such as curtains or small trees or bushes. Consider the direction of movement when installing the detector.



Access terminals and anchors:
To access only to separate the cover.

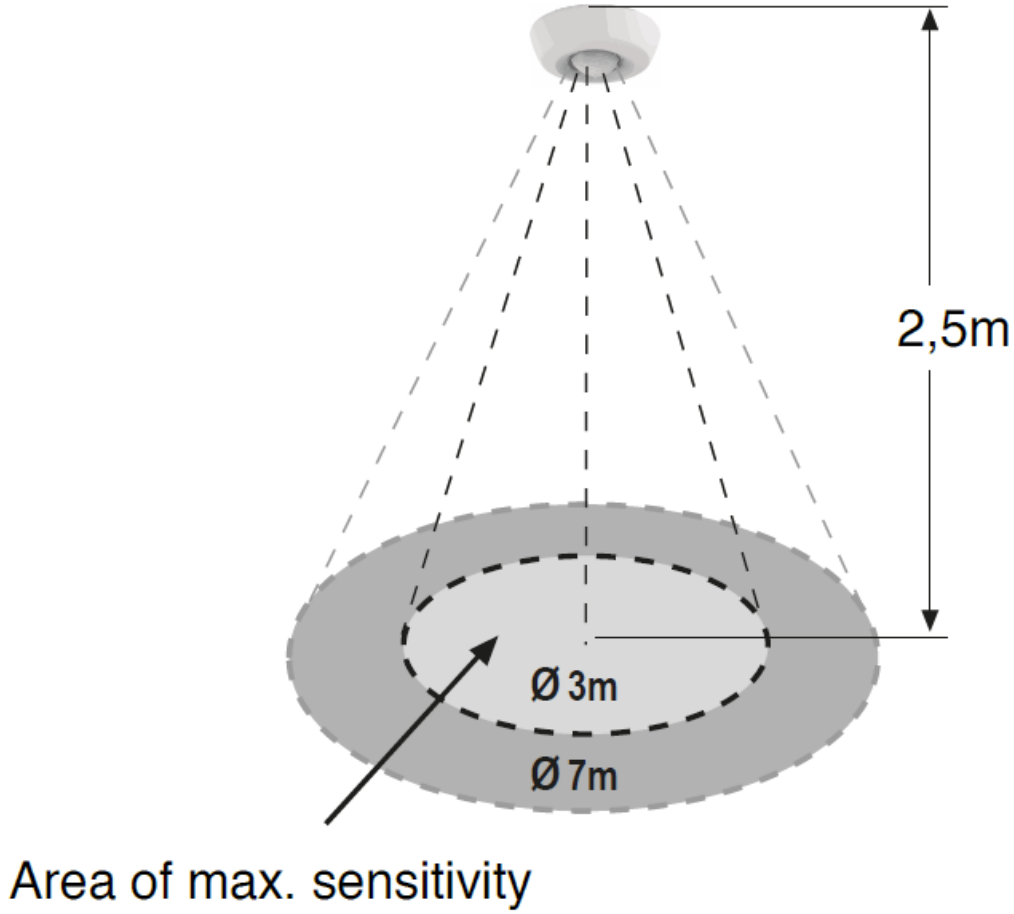


Mounting:



COVERAGE

It is recommended to mount the detector at a height of 2.5m, thus achieving a detection area of 7m in diameter.



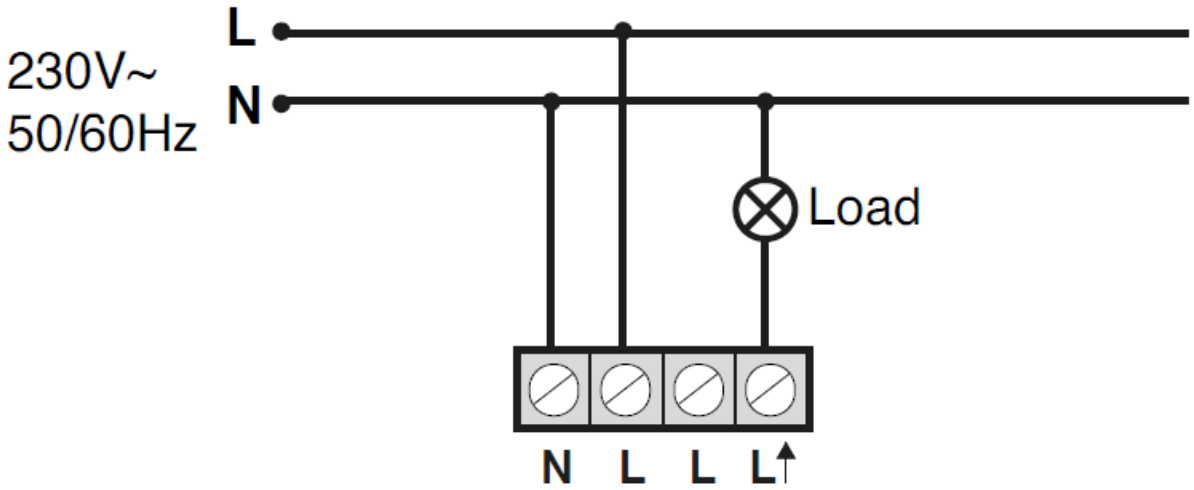
INSTALLATION AND WIRING

ATTENTION: Dangerous voltage!

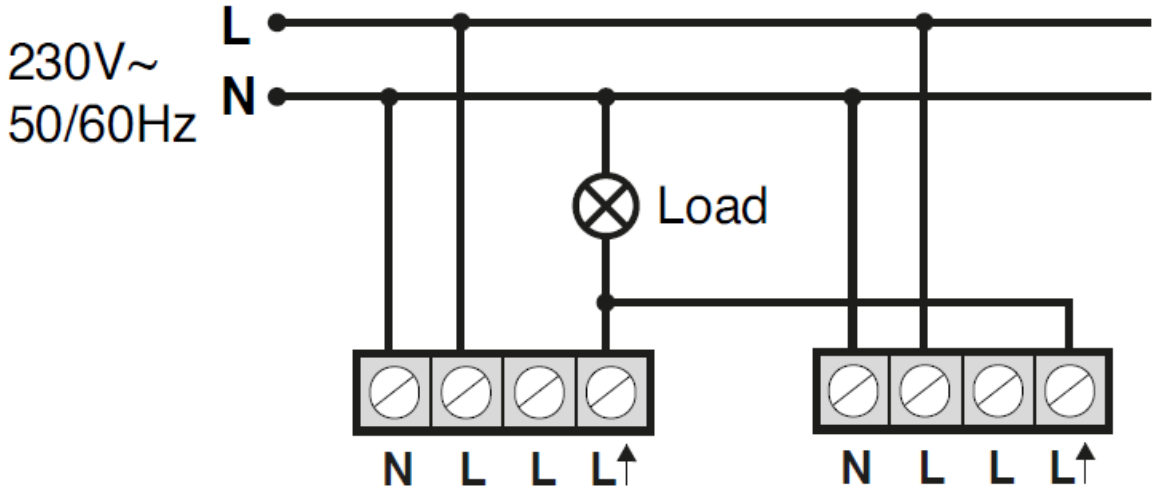
- Installation of electric equipment must be carried out by qualified professionals.
- Before you start making any connections, disconnect the power supply to avoid any risk.
- When some kinds of lamps blow, they can produce a very high current which could damage the detector.

NOTE
Once the detector is connected to the power supply, it is necessary to wait 30 seconds for it to stabilize. During this time, the device activates its output and does not respond to movement.

- Follow one of the following diagrams to make the connection:
  - Simple installation of a single detector:



- Installation of two detectors in parallel with a single charge:



SETTINGS

- ALL OPERATION SETTINGS OF THIS DETECTOR ARE EXCLUSIVELY CONFIGURED THROUGH THE DINUY CONFIGURE APP (see below).
- To consult about the installation of the App, menus, application of the configuration, or the resolution of problems related to the configuration, please consult the instructions for use of the DINUY CONFIGURE App.
- The basic operating values of this detector are ‘Timing’, ‘Brightness´, and ‘Sensitivity’ can be adjusted using the DINUY CONFIGURE App.
  - **Timing Setting (TIME)**
    Factory setting: 1 minute.
    Sets the time the charge will be on after detecting movement. The ignition time can be adjusted between 1 sec. and 60min. After the first detection, the time will be reset and, each time a new movement is detected, the timing will begin again.
  - **Brightness Adjustment (LUX)**
    Factory setting: Disabled.
    - Its function is to set the maximum luminosity value, above which the detector will not activate the load despite detecting movement. Furthermore, in mode Presence Detector if the set brightness level is exceeded while the lighting is activated (presence of people), the load will be automatically deactivated.

- The user can set this value depending on their requirements, between 5 and 2.000 Lux and disabled.
- If this parameter is set to a very low value, close to 5 Lux, the detector will only work in the dark, at night (in case there is not enough natural light).
- If this parameter is set to the value Disabled, the detector will work in any light level, regardless of natural light, both day and night.

- **Sensitivity Adjustment**
  Factory setting: Very High.
  This parameter allows you to limit the detection range and adapt the operation to, for example, unstable environments. You can choose between 5 adjustment options:
  - Very High
  - High
  - Medium
  - Low
  - Very low

FUNCTION TEST

The purpose of this test is to check and adjust the coverage area of the detector when it is first connected.

NOTE
Once the detector is connected to the power supply, it is necessary to wait 30 seconds for it to stabilize. From that moment, the operation test can be carried out.

- The red LED visually indicates when motion is detected and works both when the load is on and off.
- This red LED will light up whenever motion is detected.
- Walk from outside the coverage area inward until the lights turn on.
- The blue LED indicates that the Bluetooth is activated and ready to receive the programming from the smartphone. Once the detector is powered at 230V~ the Bluetooth will be activated for a while. After this time the Bluetooth will be automatically deactivated. This time can be selected from 10 minutes to 4 hours. The factory setting is 2 hours.
- Once you have verified that the operation is correct, save the detector settings with the desired values

COVER SHUTTER

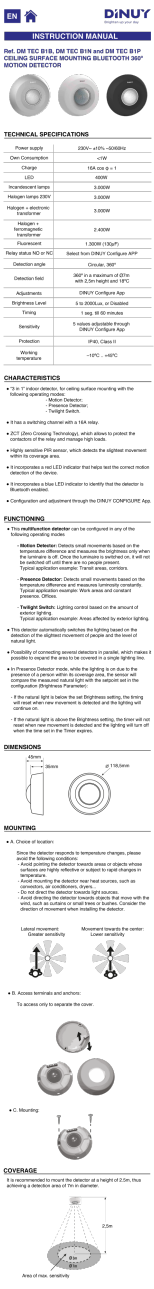
- A cover shutter is included in the same detector box, which allows you to exclude areas from the detection area, as well as reduce the coverage area according to needs.
- If the default detection area of the detector is too large, or it is detected in areas that are not desired, this area can be easily reduced simply by using the shutter covers.

PROBLEM RESOLUTION

When the detector stops working normally, review the possible faults and the suggested solutions in the following table that will help you solve the problem:

Problem	Possible cause	Suggested Solution
The lamps do not turn on	No voltage reaching the detector	Properly power the detector
	Bad connection	Check the connections and follow the instructions diagram
	Poorly adjusted LUX	Check the Brightness Adjustment setting
	Defective charge	Replace the load
	Very high ambient temperature	Wait for the ambient temperature t o reduce and test the detector
The lamps don’t go out	The set shutdown time is too long	Reduce disconnection time and ch eck that the lamps turn off after the time has elapsed
	The detector trips unexpectedly	Stay out of the coverage area to a void false activations
	Bad connection	Make sure the charging and power are connected well
Lamps turn on and off cyclically	The load (fluorescence, contactor…) generates harmonics t hat continuously trigger the detector with each switching	Move the detector away from the l oad or place an RC harmonic suppression filter (AC DM-002) bet ween L’ and N
Unwanted activations	Heat sources, drafts, reflective surfa ces or objects that move due to win d	Avoid directing the detector towards heat sources, such as air conditioners, fans, radiators. Make sure there are no objects that mov e with the wind. Reduce the Sensitivity of the detec tor with the APP Dinuy Configure.
Lamps work in reverse, turning on when they should be off, and off wh en they should be on	The Output Polarity is set in reverse	Make sure you change the Output Polarity in the ADVANCED MENU

Documents / Resources


EN

DiNUY

INSTRUCTION MANUAL

Ref. DM TEC B1B, DM TEC B1N and DM TEC B1P
CEILING SURFACE MOUNTING BLUETOOTH 360º
MOTION DETECTOR

TECHNICAL SPECIFICATIONS

Power supply	230V~ ±10% ~50/60Hz
Own Consumption	<1W
Charge	16A cos φ = 1
LED	400W
Incandescent lamps	3.000W
Halogen lamps 230V	3.000W
Halogen + electronic transformer	3.000W
Halogen + ferromagnetic transformer	2.400W
Fluorescent	1.200W (130µF)
Relay status NO or NC	Select from DINUY Configure APP
Detection angle	Circular, 360º
Detection field	360º in a maximum of Ø7m with 2.5m height and 18ºC
Adjustments	DINUY Configure App
Brightness Level	3 to 2000Lux, or Disabled
Timing	1 seg. till 60 minutes
Sensitivity	5 values adjustable through DINUY Configure App
Protection	IP40, Class II
Working temperature	-10ºC .. +45ºC

CHARACTERISTICS

- "3 in 1" indoor detector, for ceiling surface mounting with the following operating modes:
  - Motion Detector;
  - Presence Detector;
  - Twilight Switch.
- It has a switching channel with a 16A relay.
- ZCT (Zero Crossing Technology), which allows to protect the contactors of the relay and manage high loads.
- Highly sensitive PIR sensor, which detects the slightest movement within its coverage area.
- It incorporates a red LED indicator that helps test the correct motion detection of the device.
- It incorporates a blue LED indicator to identify that the detector is Bluetooth enabled.
- Configuration and adjustment through the DINUY CONFIGURE App.

FUNCTIONING

- This **multifunction detector** can be configured in any of the following operating modes:
  - **Motion Detector:** Detects small movements based on the temperature difference and measures the brightness only when the luminaire is off. Once the luminaire is switched on, it will not be switched off until there are no people present.
    Typical application example: Transit areas, corridors.
  - **Presence Detector:** Detects small movements based on the temperature difference and measures luminosity constantly.
    Typical application example: Work areas and constant presence. Offices.
  - **Twilight Switch:** Lighting control based on the amount of exterior lighting.
    Typical application example: Areas affected by exterior lighting.
- This detector automatically switches the lighting based on the detection of the slightest movement of people and the level of natural light.
- Possibility of connecting several detectors in parallel, which makes it possible to expand the area to be covered in a single lighting line.
- In Presence Detector mode, while the lighting is on due to the presence of a person within its coverage area, the sensor will compare the measured natural light with the setpoint set in the configuration (Brightness Parameter):
  - If the natural light is below the set Brightness setting, the timing will reset when new movement is detected and the lighting will continue on.
  - If the natural light is above the Brightness setting, the timer will not reset when new movement is detected and the lighting will turn off when the time set in the Timer expires.

DIMENSIONS

MOUNTING

- A. Choice of location:

  Since the detector responds to temperature changes, please avoid the following conditions:
  - Avoid pointing the detector towards areas or objects whose surfaces are highly reflective or subject to rapid changes in temperature.
  - Avoid installing the detector near heat sources, such as conventors, air conditioners, dryers...
  - Do not direct the detector towards light sources.
  - Avoid directing the detector towards objects that move with the wind, such as curtains or small trees or bushes. Consider the direction of movement when installing the detector.

- B. Access terminals and anchors:

  To access only to separate the cover.

- C. Mounting:

COVERAGE

It is recommended to mount the detector at a height of 2,5m, thus achieving a detection area of 7m in diameter.

[DINUY E98PDIHJ Mechanical Timer Socket] [pdf] Installation Guide
E98PDIHJ Mechanical Timer Socket, E98PDIHJ, Mechanical Timer Socket, Timer Socket, Socket

References

- User Manual