

UNIVERSAL BOX MOUNTED MOTION DETECTOR

DM CAM 001



INSTRUCTIONS MANUAL

Technical specifications

- **Power supply:** 230V_{AC} ±10% ~50 Hz
- **Power consumption:** <1W
- **Switching power:** 16A cosφ = 1
 - Incandescence: 3.000W
 - Halogen 230V: 3.000W
 - LV Halogen with electronic transfo: 3.000W
 - LV Halogen with ferromagnetic transfo: 2.400W
 - Fluorescent: 1.300W (130μF)
 - Energy Saving lamps: 18x7W, 12x11W, 10x15W, 10x20W or 10x23W
 - LED lamps: 900W
- **Coverage angle:** 200°
- **Detection area:** 200°, max. 8m at 1,2m high and 18°C
- **Settings:** By control knobs or optional remote control (EM MAN DMO)
- **Level of luminosity:** 3 ~ 100Lux
- **Timing:** 30 seconds ~ 10 minutes
- **Dimensions (mounted):** 80mm x 80mm
- **Environmental protection:** IP40, Class II
- **Operating temperature:** -10°C ~ +45°C

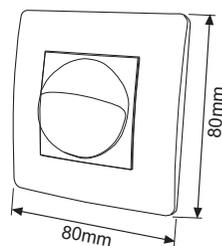
WARNING

- Installation of electrical equipment must be carried out by qualified professionals.
- Disconnect from power supply before doing the installation.
- When some kinds of lamps blow, they can produce a very high current which could damage the detector.

1 DESCRIPTION

- Indoor universal mechanism box mounted movement detector.
- One no free-voltage switching channel.
- Very high capacity relay which allows switching any type of load.
- Built-in light sensor which allows limiting its operation to the daylight.
- High sensitivity PIR sensor which detects very small movements.
- It is possible to connect several detectors in parallel in order to increase the coverage area.
- Can be manually triggered through a pushbutton switch (without indicator lamp).
- Fitted with red LED light that indicates it is working.
- It is possible to adjust timing, lux level and sensitivity through a remote control (EM MAN DMO) without the need to access the potentiometers of the device itself.
- Application examples: corridors, public lavatories, staircases, etc.

2 DIMENSIONS



3 MOUNTING

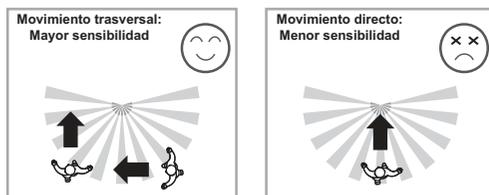
A. Select a proper location:

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

- Avoid aiming the detector toward objects whose surfaces are highly reflective or are subject to rapid temperature changes.
- Avoid mounting the detector near heat sources, such as heating vents, air conditioners, dryers, etc.
- Do not aim the sensor towards any kind of light.
- Avoid aiming the detector towards objects which may move by wind, such as curtains, trees, bushes, etc.

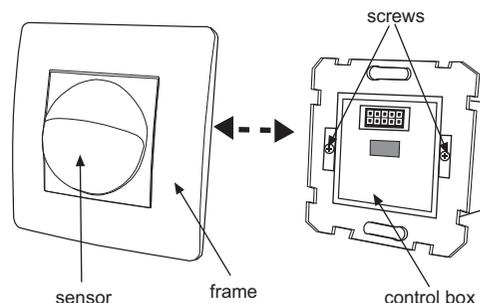
Take into account the walking direction when installing. It is more sensitive to movement across the detector and less sensitive to movement directly toward the detector.

In the event that movement is directly toward to detector the detection coverage will be decreased.



B. Mounting:

- 1 - Disassemble the sensor from the control box stretching outward and detaching it from the metallic frame.
- 2 - Untwist the screws from the terminals and insert the cables according to the wiring diagram.
- 3 - Screw the terminals and make sure the wire are securely fixed.
- 4 - Fix the control box with the wires into the mechanism box through the two screws from the grips.
- 5 - Put the sensor with the plastic frame together. Then insert both into the universal box by means of hook aiming at the notch. Ensure the pin array and socket are well fixed.
- 6 - Supply power and carry out test to check the detector works normally.

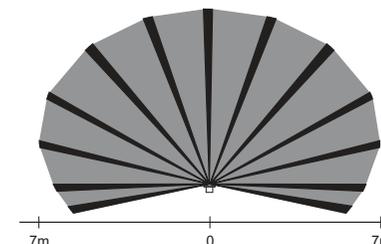
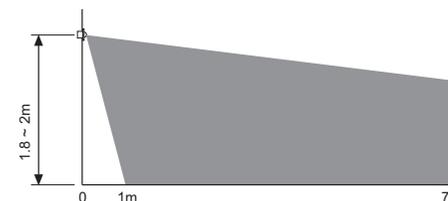
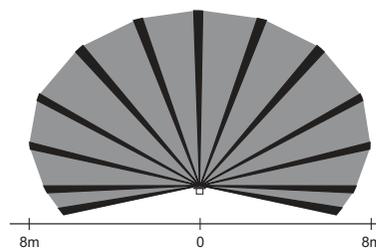


4 COVERAGE

These detectors are designed for indoor installations and are specially appropriated for corridors, staircases, hotels...

It is recommended to install at the height of 1,2m ~ 2m.

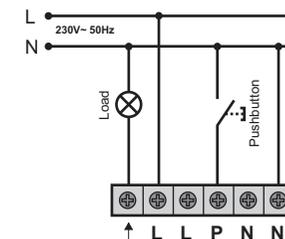
The detection area depends on the height and the movement direction.



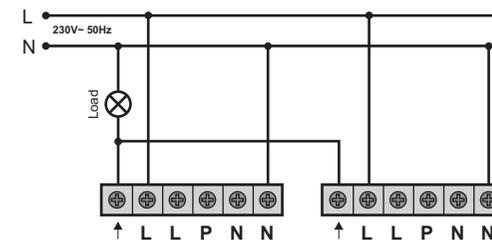
5 INSTALLATION AND WIRING

Refer to the next wiring diagrams when installing the detector:

- One movement detector with non-lighted pushbutton switch (optional):

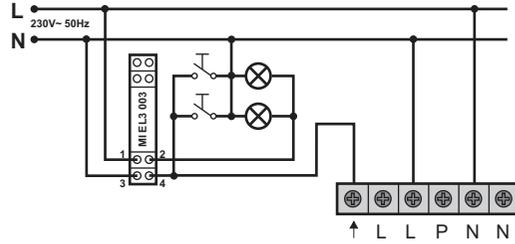


- Two movement detectors in parallel with one load:



- Installation with a DINUY's staircase time switch (MI EL3 003) with the time delay fixed on the timer:

WARNING: Since the staircase time switch is triggered by the pushbutton through Neutral, it is necessary to invert the power supply.



6 SETTINGS AND TEST

SETTINGS

Lux and Time settings can be adjusted through the control knobs or using the optional remote control (EM MAN DM0).



Set the Lux and Time settings according to the desired values:

Luminosity level (LUX)

- Its function is to set the maximum brightness value below which the detector will activate the load as soon as it detects any small movement.
- The user can set this value according to his requirements, between 3 and 100 Lux.
- If the knob is set to "☾" the detector will only work in the dark, at night (if there is not enough daylight).
- If the knob is set to "☼" the light sensor is deactivated, it will switch the load on regardless the daylight level.



Time delay (TIME)

- Sets the switch-on time after the last detection.
- Can be adjusted between 30sec. and 10min.
- After the first detection, the time is reset and the timing starts again each time a new movement is detected.



Setting using Remote control (EM MAN DM0)

- The Time and Lux settings can be adjusted via this remote control, without need to access to the potentiometers.
- Detector's LED behaviour when using the remote control:
 - The LED flashes twice as soon as it receives a command from the remote control.
 - The LED will be on for 1s and 5sec off after receiving a "Permanent ON or OFF" from the remote control.

WORKING TEST

The purpose of the test procedure is to check and adjust the coverage pattern of the motion sensor when it is connected for the first time.

Note After connecting the power supply it is necessary to wait for 2 minutes before doing the test procedure.

The red LED, which is within the lens, can be used as an indicator when performing the test procedure, without any load.

This LED lights whenever motion is detected.

Turn the LUX knob to "☼" and TIME knob to "-".

Walk from outside across to the detection pattern until the LED and load is turned on.

Once verified that the working is successful, set the detector to the desired values.

7 TROUBLE RESOLUTION

When the detector stops working, check the possible failures and the solutions suggested in the following table that maybe will help you to solve the problem:

Problem	Possible cause	Suggested solution
Lamp does not light up	1. Power is not turned on	1. Supply the detector
	2. Wrong wiring	2. Check connections
	3. Incorrect setting of Lux	3. Check this setting
	4. Lamp may be defect	4. Replace lamp
	5. 'Permanent OFF' set via remote control (if used)	5. Press OFF key to return to automatic mode
Lamp stays ON continuously	1. El tiempo de desconexión fijado es demasiado largo	1. Reduzca el tiempo de desconexión y compruebe que las lámparas se apagan transcurrido el tiempo
	2. Thermal activity detected withing detection area	2. Remove heatsource (persons, animals, fans, etc.)
	3. Wrong wiring	3. Check connections
	4. 'Permanent ON' set via remote control (if used)	4. Press ON key to return to automatic mode
Lamp is switched on and off cyclically	The load (fluorescence, contactor,...) is continuously generating harmonics triggering the detector in each switching	Separate the detector from the load or connect a RC harmonic suppression filter between L' and N
Nuisance triggering	Heat sources, highly reflective objects or any object which may be swayed by the wind is within the detection range	Avoid aiming the detector towards any heat source, any reflective surface or swaying objects