

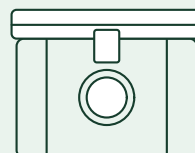
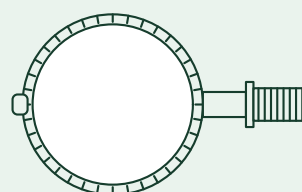
Technical instructions

MC054V RC

Microwave motion sensor

Installation and operating instructions

A / B / C / D variants
MH01 remote control
1-10 V dimming interface

**3-15 m**

Mounting height

1-10 V

Dimming

5.8 GHz

Microwave frequency

Inside this manual

Product overview and technical data	2
Safety and installation guidelines	3
Mounting options and dimensions	4
Mounting and orientation	5
Wiring and IR control	6
Detection patterns	7
MH01 remote control	8
DIP settings: detection and timers	9
DIP settings: dimming and daylight	10
Troubleshooting and radio notices	11

01

Product overview and technical data

Key features

- Parameters can be set conveniently by remote control.
- Mounting height up to 15 m; suitable for warehouse applications.
- Automatic dimming with compatible 1-10 V dimmable control gear.
- Built-in adjustable daylight sensor. The 1-10 V interface can be combined with an external MS01 daylight sensor for daylight harvesting.
- Optional brackets for different mounting applications.

Parameter	Specification
Supply voltage	120/277 V AC, 50/60 Hz
Rated load	Inductive load up to 400 W; resistive load up to 800 W.
Detection area	Adjustable; maximum radius 8 m.
Hold time	5 s / 30 s / 1 min / 3 min / 5 min / 10 min / 20 min / 30 min
Daylight threshold	5 / 15 / 30 / 50 / 100 / 150 lx / Disable
Stand-by period	0 s / 10 s / 1 min / 3 min / 5 min / 10 min / 30 min / ∞
Stand-by dimming level	10% / 20% / 30% / 50%
Sensor principle	Microwave motion detection
Microwave frequency	5.8 GHz ±75 MHz, ISM band
Mounting height	3-15 m
Detection angle	150° wall mounting; 360° ceiling mounting.
Motion speed	0.5-1 m/s
Operating temperature	-35 °C to +55 °C
IP rating	IP65; indoor use only

Indoor use only

The sensor is intended for indoor installation. Outdoors, rain or wind may trigger detection even without human movement.

02

Safety and installation guidelines

- 1 Read the entire manual before use and retain it for future reference. Errors in text or illustrations and necessary technical changes are reserved.
- 2 Installation and servicing must be performed by a qualified electrician. Disconnect the electricity supply before starting work.
- 3 Do not modify the sensor. Modifications void the warranty.
- 4 The company accepts no responsibility for consequences of unauthorized modifications.
- 5 Microwaves do not pass through metal or brick walls thicker than 20 cm. Thinner walls may be penetrated with some attenuation.
- 6 For indoor use only. Outdoors, rain or wind may trigger detection even without human movement.
- 7 Connect the sensor to a stable 120-277 V AC, 50/60 Hz supply.
- 8 Detection depends on movement speed, installation height and the size of the moving object.
- 9 The daylight sensor was tested in sunny conditions without a lampshade.
- 10 **WARNING** - Electric shock hazard. More than one disconnect switch may be needed to fully isolate the equipment before servicing.

Company and contact

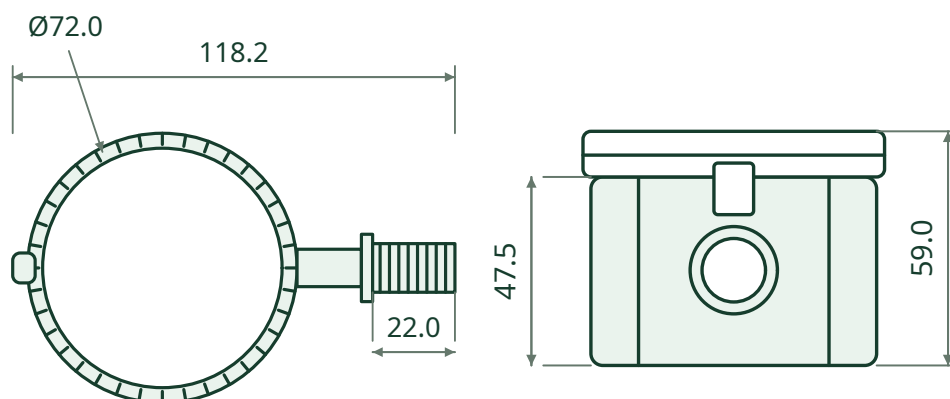
Company	Kaito-Hungary Kft.
Address	Depó Raktárváros 27., Pf. 66., 2046 Törökbálint
Telephone	+36 23 511 460
E-mail	landlite@landlite.eu
Website	www.kaito.hu
Registration / tax / EU VAT	13-09-098496 / 10804544-2-13 / HU10804544

03

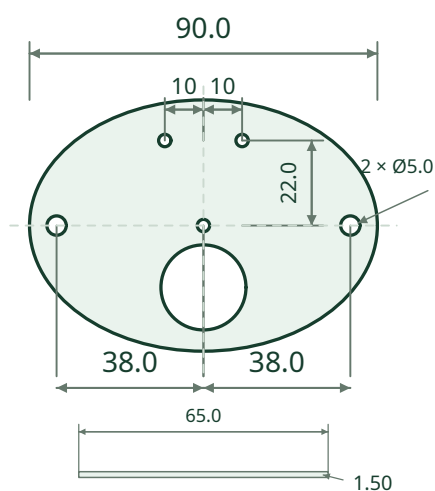
Mounting options and dimensions

Schematic redraw based on the supplied scan. Confirmed dimensions are shown in mm. Unspecified geometry is illustrative; do not use these drawings as drilling templates.

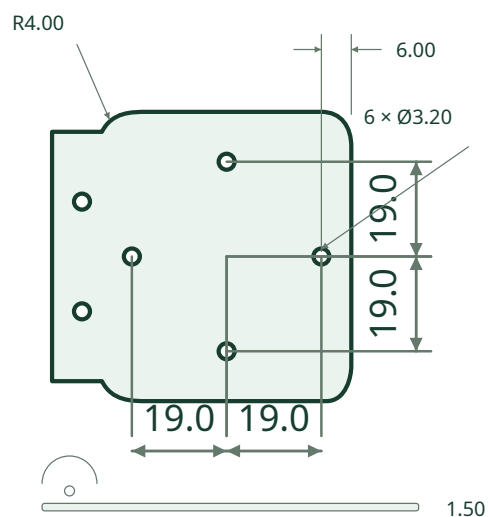
D / Sensor body



MC054V RC B



MC054V RC C



Tightening torque: cable bushing 2.5 N·m; nut 2.5 N·m, as stated in the original instructions.

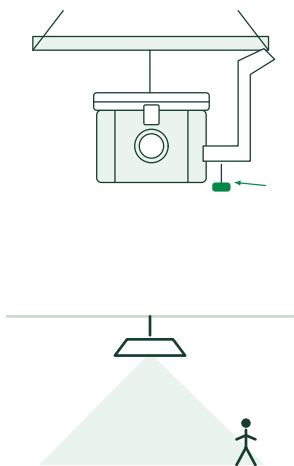
04

Mounting and orientation

Assembly views and installation orientation. Illustrations are schematic.

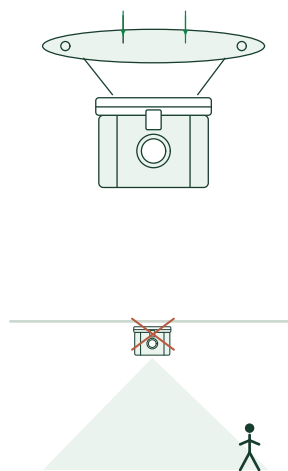
MC054V RC A

Metal reflector clip; 1 screw.



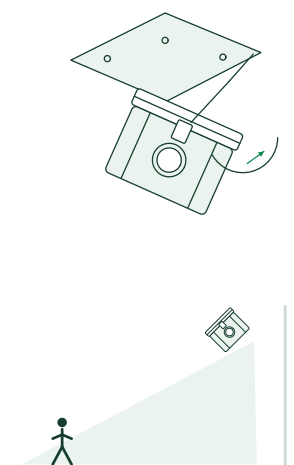
MC054V RC B

Oval surface-mounted bracket; 2 screws M4.0 × 25 mm.



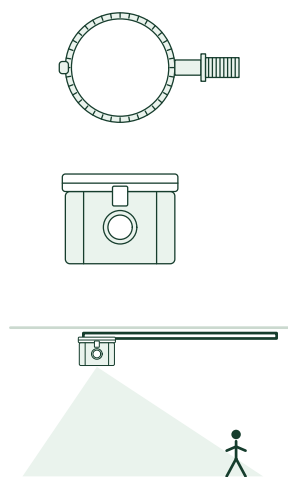
MC054V RC C

Rotatable metal bracket; 4 screws M3.0 × 8 mm.



MC054V RC D

Sensor body and dimensional drawing.

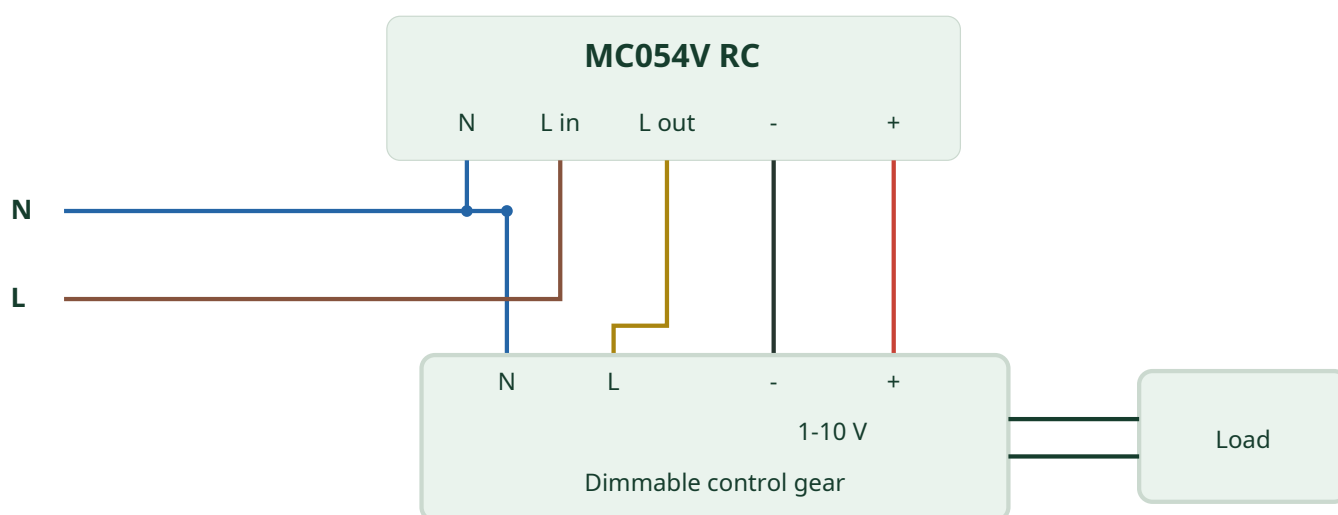


Variant B: the original instructions prohibit ceiling installation. The red cross identifies the prohibited orientation.

05 Wiring and infrared control

Use the diagram for the relevant variant. Terminal designations and conductor colours are unchanged. N: blue; L in: brown; L out: yellow; 1-10 V +: red; 1-10 V -: black. Connect the dimmable control gear to the load as shown.

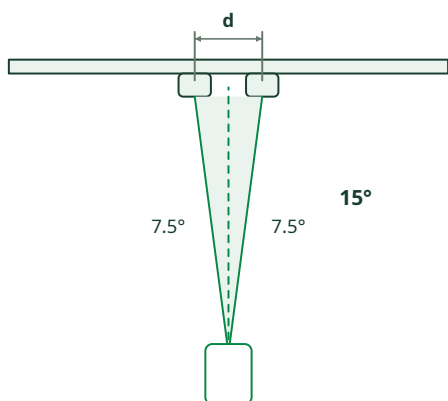
120-277 V AC · 50/60 Hz



Disconnect all supplies before installation or servicing. A line crossing without a dot is not an electrical connection.

Infrared control: 15°

The infrared remote has a fixed 15° control angle. If sensors are too close together, one command can configure more than one sensor. Use the following spacing guidance.



Mounting height	Distance between sensors
15 m	4 m
12 m	3.4 m
9 m	2.4 m
6 m	1.6 m
3 m	0.8 m

Total control angle 15° = 7.5° on each side. d: distance between sensors.

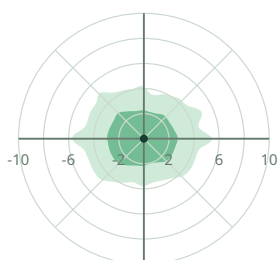
06

Detection patterns

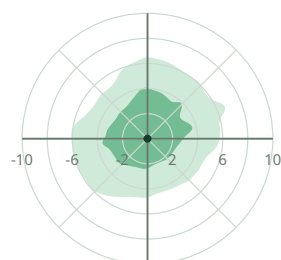
Original detection plots at mounting heights of 3, 6, 9, 12 and 15 m. Left: fast walking; right: slow walking. Shading indicates the illustrated detection-area settings. Actual coverage depends on the installation and moving object.

A / 3 m

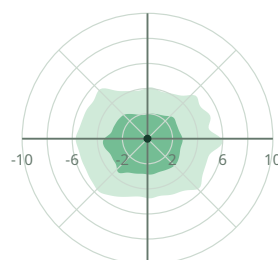
Fast walking



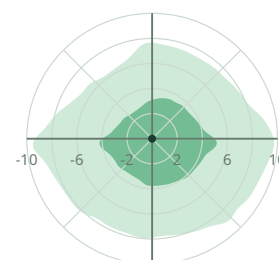
Slow walking

**B / 6 m**

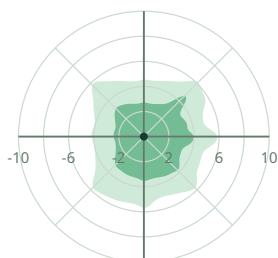
Fast walking



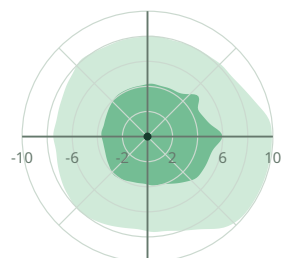
Slow walking

**C / 9 m**

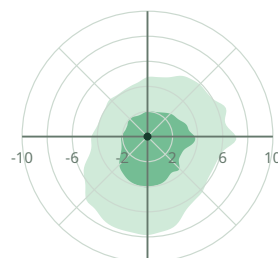
Fast walking



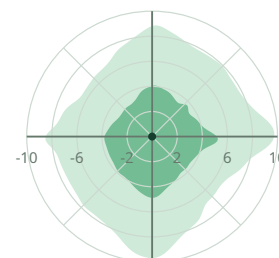
Slow walking

**D / 12 m**

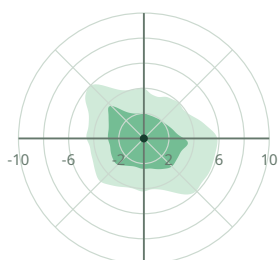
Fast walking



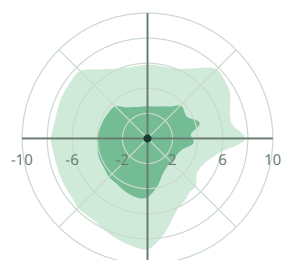
Slow walking

**E / 15 m**

Fast walking



Slow walking

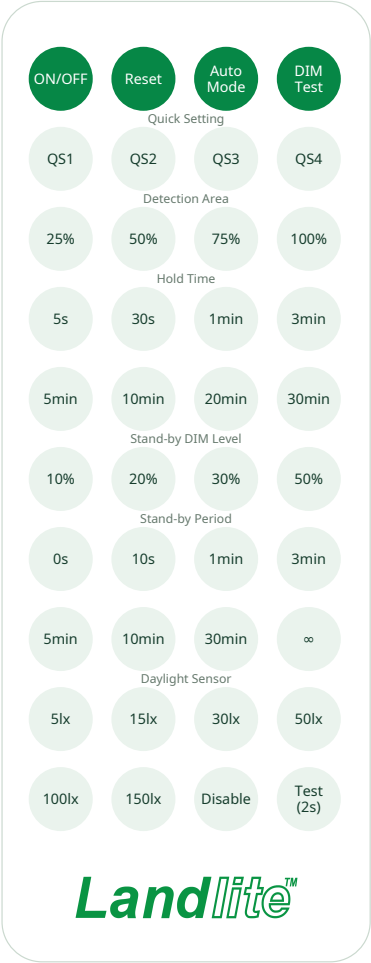
**Reading the diagrams**
 100% setting

 50% setting

Radial grid: 0-10 m. Installation height appears above each pair.

The shaded envelopes are approximate vector traces of the original printed plots. They are not new measurements or guaranteed detection boundaries. Grid unit: m.

07 MH01 remote control



Button	Function
ON/OFF	Selects permanently ON or OFF; sensor operation is disabled. Press Reset or Auto Mode to return to sensor operation.
Reset	Restores all parameters to the DIP-switch settings.
Auto Mode	Starts sensor operation, retaining the parameters used before manual ON/OFF.
DIM Test	Tests dimming automatically and then returns to normal operation.
Test (2s)	Factory test only: sensitivity 100%; hold time 2 s; stand-by level 10%; stand-by period 0 s; daylight sensor disabled. Press any button to exit.

Successful remote setting is confirmed by three flashes of the sensor’s green operating indicator.

Quick scene presets

QS	Area	Hold	Stand-by	Dim level	Daylight
QS1	100%	30 s	1 min	10%	5 lx
QS2	100%	1 min	3 min	10%	15 lx
QS3	100%	5 min	10 min	10%	30 lx
QS4	100%	10 min	30 min	10%	Disable

Detection area, hold time, stand-by period, stand-by level and daylight threshold can be changed using their corresponding buttons. The most recent setting remains valid. Printed button names are retained to match the remote control.

08

DIP settings: detection and timers

DIP switches set the detection area, hold time, stand-by period, stand-by dimming level and daylight sensor. Reducing the detection area also reduces sensitivity. ON and OFF below describe the switch position; OFF corresponds to the dash in the original tables.

Detection area

1	Value
ON	100%
OFF	50%

Maximum detection-area setting.

Hold time

2	3	4	Value
ON	ON	ON	5 s
OFF	ON	ON	30 s
ON	OFF	ON	1 min
OFF	OFF	ON	3 min
ON	ON	OFF	20 min
OFF	OFF	OFF	30 min

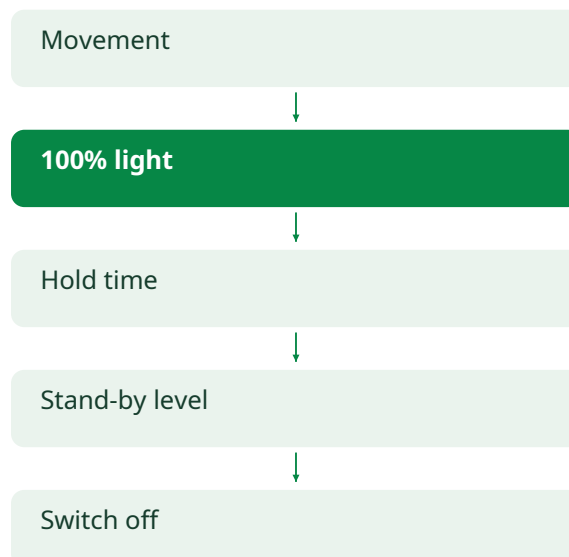
Time at 100% light output after the last detected movement.

Stand-by period

1	2	3	Value
ON	ON	ON	0 s
OFF	ON	ON	1 min
ON	OFF	ON	3 min
OFF	OFF	ON	10 min
ON	ON	OFF	30 min
OFF	OFF	OFF	∞

Time at the preset dim level before switching off. At 0 s the device operates as ON/OFF control. With daylight disabled and ∞ selected, it remains at the stand-by level when no movement is detected.

How the timings work



Only combinations explicitly printed in the original DIP tables are reproduced. The additional timing choices in the overall specifications and on MH01 are not assigned invented DIP combinations.

09

DIP settings: dimming and daylight

Use the switch groups shown below to set the stand-by output and the ambient-light threshold.

Stand-by dimming level

4	5	Value
ON	ON	10%
ON	OFF	20%
OFF	ON	30%
OFF	OFF	50%

Light level after the hold time when the area remains unoccupied.

Daylight threshold

6	7	8	9	Value
ON	ON	ON	ON	5 lx
OFF	ON	ON	ON	15 lx
ON	OFF	ON	ON	30 lx
OFF	OFF	ON	ON	50 lx
ON	ON	OFF	ON	100 lx
ON	ON	ON	OFF	150 lx
OFF	OFF	OFF	OFF	Disable

5/15 lx: darkness; 30/50/100/150 lx: twilight thresholds.
Disable: movement switches the light on regardless of ambient brightness.

Operating modes

Stand-by = 0 s

ON/OFF operation: switch off after the hold time.

Daylight = Disable; stand-by = ∞

Two-step dimming: 100% on movement, otherwise the preset stand-by level.

Daylight threshold active

The lamp is enabled below the selected ambient-light threshold.

Settings made with the remote control override the DIP-switch settings until Reset is pressed; Reset restores the DIP-switch values. Set the DIP switches only with the supply disconnected.

Troubleshooting and radio notices

Symptom	Cause	Remedy
Light does not switch on.	Wrong daylight setting; failed load; power off.	Adjust the setting; replace the load; switch on the supply.
Light remains on.	Continuous motion, or sensor too close to metal, glass or concrete surfaces.	Check detection settings. Allow at least 30 cm to reflective surfaces; reduce sensitivity.
No switching despite motion.	Speed outside 0.5-1 m/s, or detection radius too small.	Check the detection-area setting.
Remote does not work.	Empty battery or remote not aimed at the sensor.	Replace the battery; change the aiming angle.

Radio notices

FCC Class B notice (translated from the original): This equipment was tested to the Class B digital-device limits under Part 15 of the FCC Rules. These limits provide reasonable protection against harmful interference in residential installations. The equipment generates, uses and may radiate radio-frequency energy. If installed or used contrary to the instructions, it may interfere with radio communications. Interference cannot be excluded in every installation. If radio or television reception is affected, verified by switching the equipment off and on, try: reorienting or relocating the receiving antenna; increasing the distance between equipment and receiver; connecting to an outlet on a different circuit; or consulting the dealer or an experienced radio/TV technician.

FCC caution: Changes not expressly approved by the party responsible for compliance may void the user's authority to operate the equipment. Operation under Part 15 is subject to two conditions: (1) the device must not cause harmful interference; (2) it must accept received interference, including interference causing undesired operation.

IC RSS notice: The original states compliance with Industry Canada licence-exempt RSS standards. Operation is subject to two conditions: (1) the device must not cause interference; (2) it must accept interference, including interference causing undesired operation. The original English and French notices express the same conditions.

These radio notices are retained as information from the supplied manual; this edition is not a new conformity declaration.

Kaito-Hungary Kft. | +36 23 511 460 | landlite@landlite.eu