

SPECIFICATION

Product Name: Lighting Control Switch

Model No.: MC609V RC A

Issue Date: March 28, 2018

| |
|-------------------|
| CUSTOMER APPROVED |
| |

| PRODUCT DIRECTOR APPROVED | SALES CHECKED | R&D CHECKED | PREPARED |
|---------------------------|---------------|-------------|----------|
| | | | |

1. Features

- Operating voltage 120/277/347V AC, suitable to North American market.
- Patented microwave antenna, mounting height is 15m Max, suitable to install in most of warehouses.
- Work with 1-10V dimmable LED driver, easy to achieve 2-step or 3-step dimming function.
- Work with remote controller MH01, easy to adjust sensor parameters.

2. Parameter

| | | |
|--------------------------|-------------------------|---|
| Input | Operating Voltage Range | 108-381V AC, 50Hz/60Hz |
| | DC Input Voltage | N/A |
| | Rated Voltage | 120/277/347Vac, 50/60Hz |
| | No-load Power | N/A |
| | Stand-by Power | <1.5W |
| | Surge Test | L--N: 2kV |
| Output | Working Mode | ON/OFF function, 1-10V step dimming |
| | Type of Load | Inductive or Resistive Load |
| | Load Capacity | 120VAC: 3.6A; 277VAC: 3.4A; 347VAC: 3.3A |
| | Current of Load | N/A |
| | Max. Surge Capacity | 50A (50% I _{peak} , t _{width} =500uS, 277Vac full load, cold start); 80A (50% I _{peak} , t _{width} =200uS, 277Vac, full load, cold start) |
| Dim Interface | 1-10V Dimming | < 50mA (Non-constant source) 10%(1.4-1.6V), 20%(1.9-2.1V), 30%(2.9-3.1V), 50% (4.9-5.1V) |
| | Synchronous Control | N/A |
| | High Low-level | N/A |
| | PWM Control | N/A |
| Sensor Parameters | Operating Frequency | 5.8 GHz ±75 MHz , ISM Band. |
| | Transmitting power | 0.5mW Max. |
| | Hold time | DIP switch: 5s/30s/1min/3min/20min/30min Remote control: 5s/30s/1min/3min/5min/10min/20min/30min |
| | Stand-by DIM Level | DIP switch & Remote control: 10%/20%/30%/50% |
| | Stand-by Period | DIP switch: 0s/1min/3min/10min/30min/+∞ Remote control: 0s/10s/1min/3min/5min/10min/30min/+∞ |
| | Detection Area | DIP switch: 100%/50% Remote control: 25%/50%/75%/100% |
| | Daylight Sensor | DIP switch & Remote control: 5lux/15lux/30lux/50lux/100lux/150lux/Disable (Ambient light diffusion) |
| | Daylight on/off | N/A |
| | Detecting Radius | 5-8m (mounting height 8m) See note 2 |

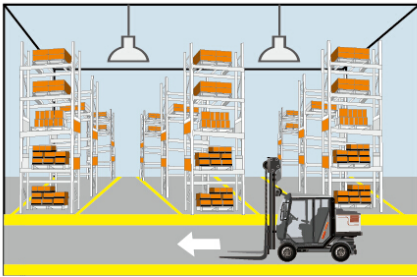
Shenzhen Merrytek Technology Co.,Ltd

Add: 2nd and 3rd floor, NO.3 Building, 380 Xiangshan Avenue, Luotian, Yanluo, Baoan, Shenzhen, 518127,China
Tel: +86 (0)755-2305 7253 Fax: +86 (0)755-2786 3012 Website: www.merrytek.com

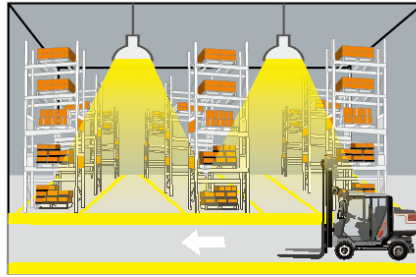
| | | |
|---|---------------------------|--|
| | Mounting Height | 15m Max |
| | Detecting Angle | 150°(wall mounting) 360°(ceiling mounting) |
| Wireless Module | Operating Frequency | N/A |
| | Transmitting power | N/A |
| | Transmitting distance | N/A |
| | Modulation mode | N/A |
| | Number of coding | N/A |
| Operating Environment | Operating Temperature | -35 °C...+55°C |
| | Storage Temperature | Temperature: -40°C...+80°C Humidity: 10%-95% (non-condensing) |
| Certificate Standards | Safety standards | UL 60730 |
| | EMC standards | FCC PART15 |
| | Environmental Requirement | Compliant to RoHS |
| | Certificate | cULus |
| Others | Wiring | Input: STW, 3*18AWG exposed line length: 810-830mm 1-10V DC: SJTW, 2*18AWG exposed line length: 810-830mm |
| | IP Rating | IP65 |
| | Protection Class | Class II |
| | Installation | Independent |
| | Dimension | (ΦxH)72*59mm |
| | Package | Instruction+ White box+ White box tags+ Clapboard+ Carton(K=A) |
| | Net Weight | MC609V A: 315g, MC609V C:343g , MC609V D:175g |
| | Lifetime | 50,000h @ Ta Full load |
| <p>Note</p> <p>1. "N/A" means not available.</p> <p>2. Detection area is effected on volume of motion object and motion speed. The detection area is tested by a 165cm height person and walking speed is 0.5m/s.</p> | | |

3. Function

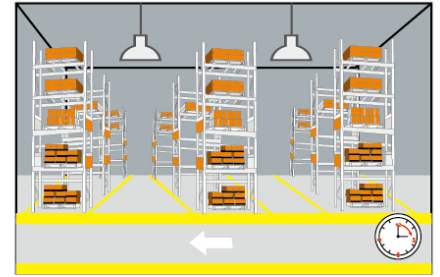
1) On/OFF Function (stand-by period be set to "0"s)



1 With sufficient ambient light, the light will not be switched on even if with motion signal.

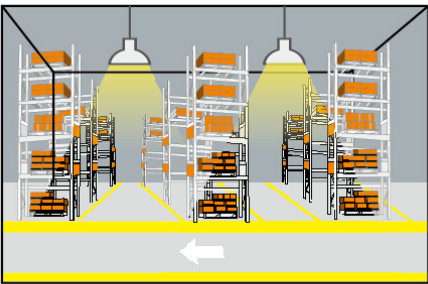


2 With insufficient ambient light, the sensor switches on the light when motion is detected.

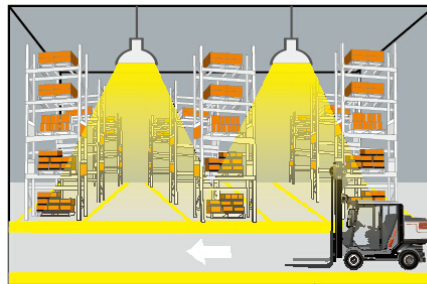


3 After elapse of hold time, the sensor switches off the light when no motion is detected.

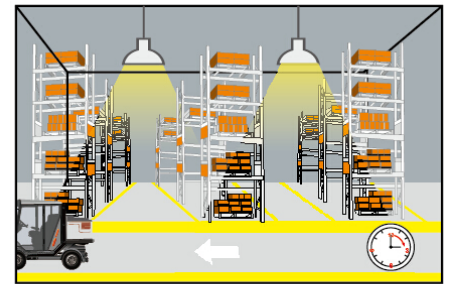
2) 2-step dimming function (stand-by period be set to "+∞")



1 If there is no motion detected, the light will be remained at a low light level all the time.

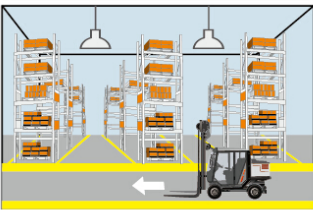


2 When motion is detected, the sensor will switch on the light to 100% brightness

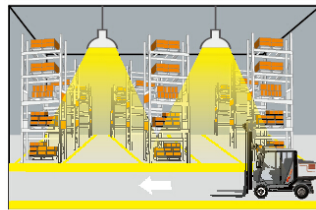


3 After elapse of hold time, the sensor dims the light at the present low light level if no motion is detected.

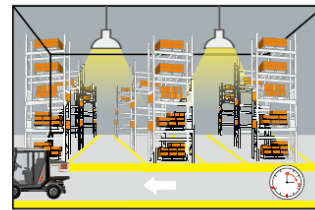
3) 3-step dimming function (stand-by period be set to "10s/1min/3min/5min/10min/30min")



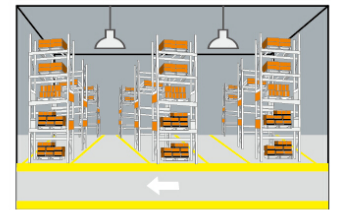
1 With sufficient ambient light, the light will not be switched on even if with motion signal.



2 With insufficient ambient light, the sensor switches on the light when motion is detected.



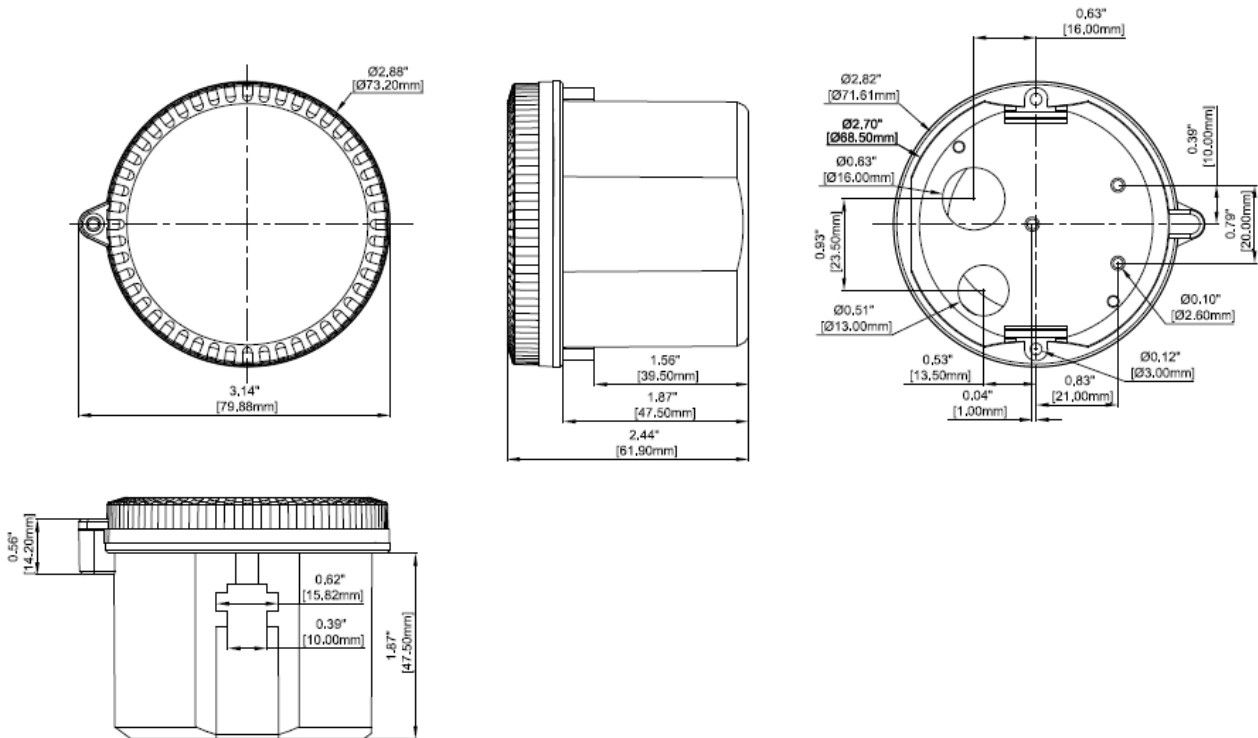
3 After elapse of hold time, the sensor dims the light at a low light level if no new motion is detected.



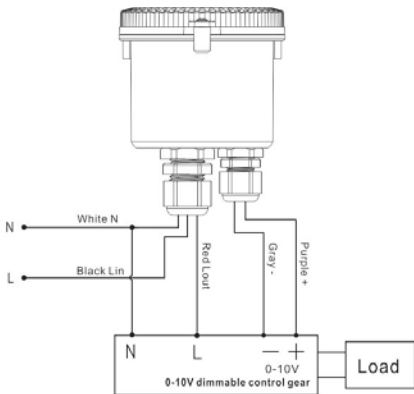
4 After elapse of standby period, the sensor switches off the light if no motion is detected in the detection zone.

4. Dimension (mm)

1) Bottom hole mounting: MC609V RC A



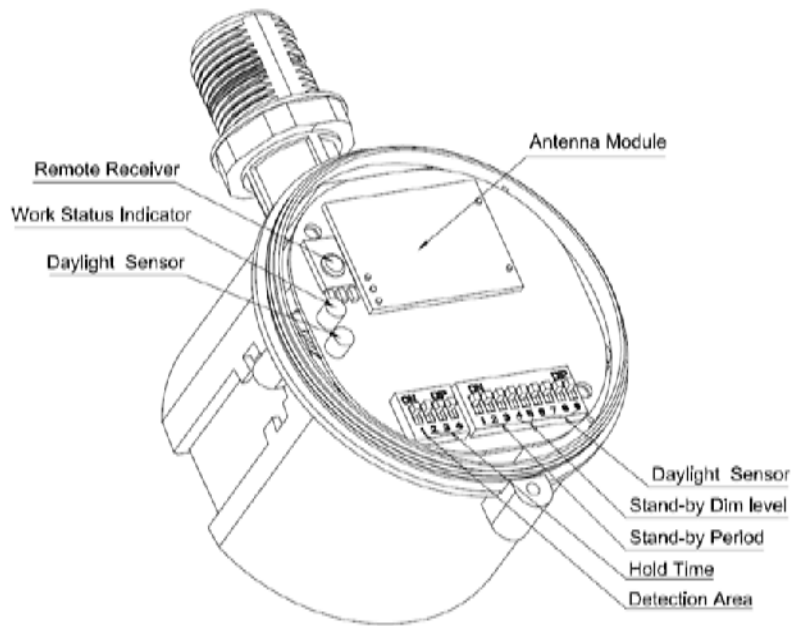
5. Wiring



MC609V RC A

*The sensor is designed for connect one load only. Connect more than one loads may damage the sensor.

6. Structure



7. Remote Control

| Button | Remarks |
|-----------|--|
| ON/OFF | Press the "ON/OFF" button, the light goes to constant on or constant off mode, the sensor is disabled. Press "Reset" or "Auto Mode" button to quit from this mode. |
| Reset | Press "Reset" button, all parameters are the same as the DIP switch setting. |
| Auto Mode | Press "Auto Mode" button, the sensor starts to work and all parameters setting will remain the same as the previous status before the light is switched on/off. |
| DIM Test | Press "DIM Test" button to test the dimming function. The sensor will dim automatically and return to the normal work mode. |
| Test (2s) | The button "Test(2s)" is for factory testing purpose only. The sensor will go in to test mode, Detection sensitivity: 100% Hold time: 2sec stand-by dim level:10% Stand-by period: 0s Daylight sensor: Disable Test mode can be disabled by pressing any button. |

| Scene Options | Detection Area | Hold Time | Stand-by period | Stand-by dim level | Daylight Sensor |
|---------------|----------------|-----------|-----------------|--------------------|-----------------|
| QS1 | 100% | 30s | 1 min | 10% | 5Lux |
| QS2 | 100% | 1 min | 3 min | 10% | 10Lux |
| QS3 | 100% | 5 min | 10 min | 10% | 30Lux |
| QS4 | 100% | 10 min | 30 min | 10% | Disable |

Note: Detection area / Hold time / Stand-by period / Stand-by dim level / Daylight sensor can be adjusted by pressing the corresponding button. The latest setting will stay valid.

The Microwave Sensor's green working light will flash 3 times when the remote control is set successfully.

8. DIP Switch Setting

Detection Area (Sensitivity)

| | | |
|----|----|------|
| | 1 | |
| I | ON | 100% |
| II | - | 50% |

Hold Time

| | 2 | 3 | 4 | |
|-----|----|----|----|-------|
| I | ON | ON | ON | 5s |
| II | - | ON | ON | 30s |
| III | ON | - | ON | 1min |
| IV | - | - | ON | 3min |
| V | ON | ON | - | 20min |
| VI | - | - | - | 30min |

Stand-by Period

| | 1 | 2 | 3 | |
|-----|----|----|----|-------|
| I | ON | ON | ON | 0s |
| II | - | ON | ON | 1min |
| III | ON | - | ON | 3min |
| IV | - | - | ON | 10min |
| V | ON | ON | - | 30min |
| VI | - | - | - | +∞ |

Stand-by Dim Level

| | 4 | 5 | Brightness% | Voltage of 1-10V interface |
|-----|----|----|-------------|----------------------------|
| I | ON | ON | 10% | 1.4-1.6V |
| II | ON | - | 20% | 1.9-2.1V |
| III | - | ON | 30% | 2.9-3.1V |
| IV | - | - | 50% | 4.9-5.1V |

Daylight Sensor

| | 6 | 7 | 8 | 9 | |
|-----|----|----|----|----|----------|
| I | ON | ON | ON | ON | 5Lux |
| II | - | ON | ON | ON | 15Lux |
| III | ON | - | ON | ON | 30Lux |
| IV | - | - | ON | ON | 50Lux |
| V | ON | ON | - | ON | 100Lux |
| VI | ON | ON | ON | - | 150Lux |
| VII | - | - | - | - | Disable* |

*Disable means the daylight sensor does not work. The sensor will turn on light once motion is detected regardless of ambient light level.

FCC Warning:

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules.

These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Caution:

Any changes or modifications to this device not explicitly approved by manufacturer could void your authority to operate this equipment. This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference.
- (2) this device must accept any interference received, including interference that may cause undesired operation.

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment.

This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

ISED Statement

English: This device complies with Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions: (1) This device may not cause interference, and (2) This device must accept any interference, including interference that may cause undesired operation of the device. The digital apparatus complies with Canadian CAN ICES-3 (B)/NMB-3 (B).

French: Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils

radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes: (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

Radiation Exposure Statement

This equipment complies with Canada radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

Déclaration d'exposition aux radiations

Cet équipement est conforme Canada limites d'exposition aux radiations dans un environnement non contrôlé. Cet équipement doit être installé et utilisé à distance minimum de 20cm entre le radiateur et votre corps.