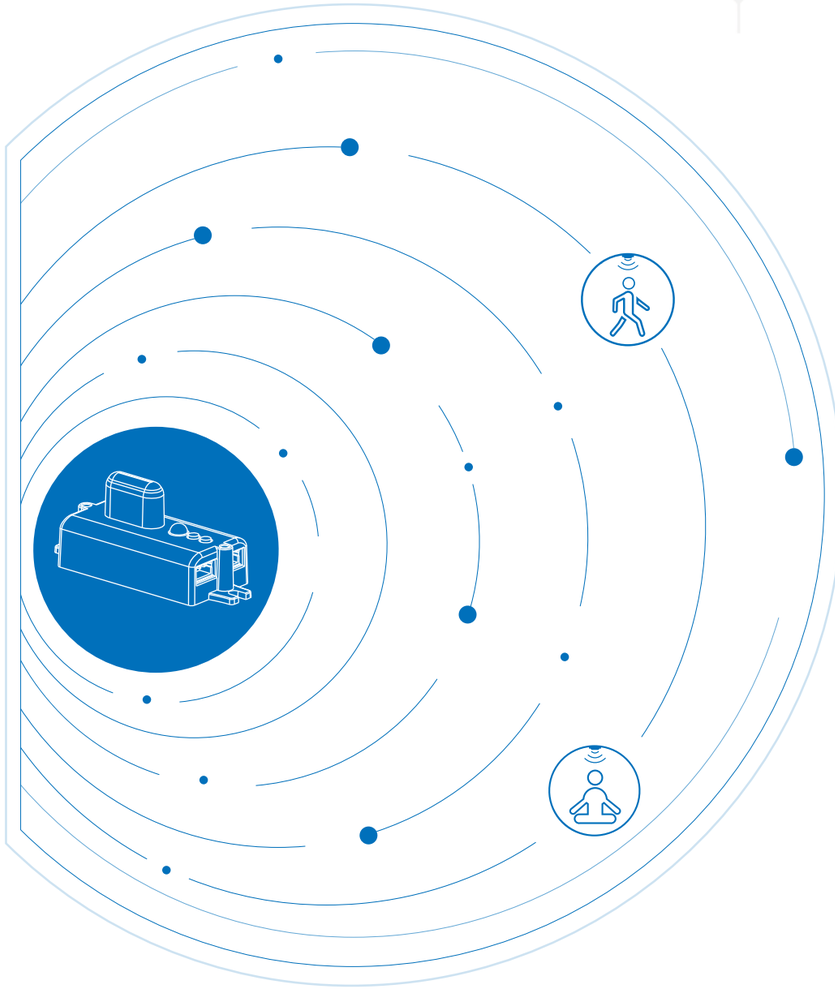

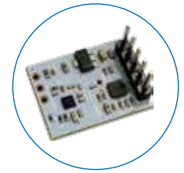

202206

OEM Lighting Sensor Catalog

SHENZHEN MERRYTEK TECHNOLOGY CO., LTD

Add: Rm 101-1101, 17th Building, Dianda Guyuan Industrial Park, Mashantou Community,
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F: 86 755 2786 3012 W: www.merrytek.net

The models, parameters and performance of the products listed in this sample book are subject to change without prior notice

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The Expert of intelligent microwave sensing industry

The microwave sensor is used for biological detection of signals such as movement, minor motion , breathing and heartbeat, unlocking the application possibility of microwave sensor in smart home, smart building, smart pension, security monitoring and other fields.

INTRODUCING
ABOUT MERRYTEK

Shenzhen Merrytek Technology Co., Ltd (referred to as "Merrytek") was founded in 2011, is a leading national specialized special new "The little giant" in the lighting control industry ,which integrates research, development, manufacture and sale of products. Thanks to the Innovative product concept, excellent product quality, "Merrytek" has become a well-known brand in the field of intelligent lighting control .

Merrytek has a R&D team of more than 50 people and owns more than 450 patents. Among them, the international patent of low impedance antenna solves the industry problem of poor environmental adaptability of traditional microwave sensors and easy interference by WIFI, 5G, Bluetooth and other wireless signals.
The international patent technology 5.8GHz microwave sensor is used for biological detection of movement, micro-movement, breathing signals, 24GHz microwave sensor for heartbeat signal detection, unlocking the application of microwave sensor for smart home, smart building, smart pension, security monitoring and other fields.

Honor and Patent

In December 2017, Merrytek won the honor of "National High-tech Enterprise". In July 2019,cooperated with South China University to create an industry-university-research base.

In 2019, joined Shanghai Pudong Intelligent Lighting Association and became a director of the Association in 2020.

Since The end of June 2022, Merrytek has obtained nearly 450 independent intellectual property rights at home and abroad.
For example: low impedance antenna technology/fretting, breath hybrid detection technology/recognition of artificial light and natural light technology/MS10 related lens technology and so on!

Merrytek fully automated production line

In addition to creating advanced technology as the core competitiveness of the company, the company keeps pace with The Times and has updated the automatic packaging line of microwave antenna module, which is a leading fully automated microwave antenna production line integrating sorting, welding, packaging and detecting. Enhanced the enterprise industrial automation production and lean production capacity. According to the production planning work, the production system can be formulated to optimize the operation of the program, effectively adjust the internal and external relations in the production process, greatly improve the production efficiency.

In 2018, Set up the industry's first microwave antenna automatic biochemical production line , realized the capacity of 300K/ month.

In 2019,transformed into 2 automatic production lines with a capacity of 500K/month.

In 2021, added to four automatic production lines , with the capacity of 1000K/month.

The production system realizes the perfect control of product quality, improves the industrial production chain of the company, comprehensively creates the core competitive advantage of the enterprise, creates good economic benefits of the enterprise, and creates value for users.

Marketing network and its customer base

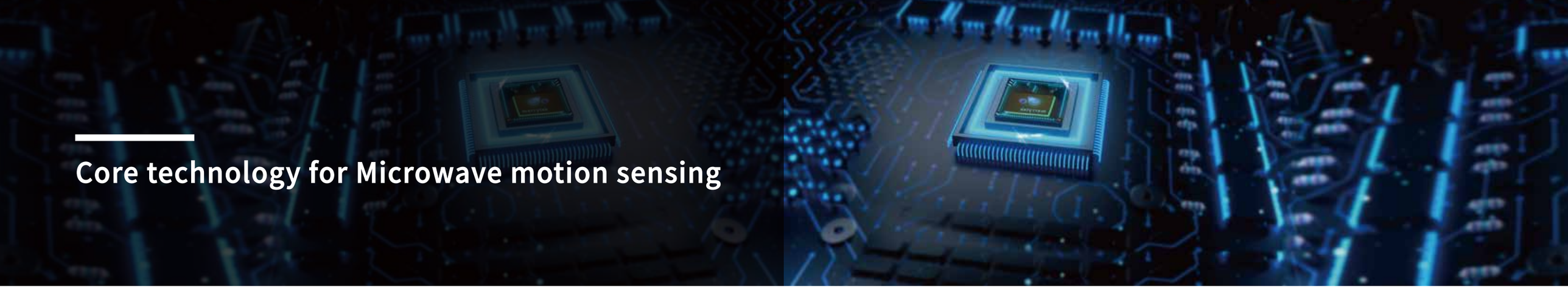
Merrytek provides high-quality products and services to 1100+ customers
in more than 110 countries around the world

Lighting Brand company
(Lighting Factory)

Engineering installer

Import distributor

Lighting Store /
Electrician Supermarket



Core technology for Microwave motion sensing

The first generation planar antenna microwave sensing technology

Representative Products: MC008S series

Firstly roll out 5.8GHz planar microwave antenna application in China, replacing PIR sensor to match different kinds of lamps for solving the problems of complex structure of lamps, short lifetime and being interfered by changing environment.

With sufficient ambient light, the light will not be switched on.

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

After elapse of stand-by-period, the sensor switches off the light if no motion is detected in the detection zone.

The first generation planar antenna for high mounting technology

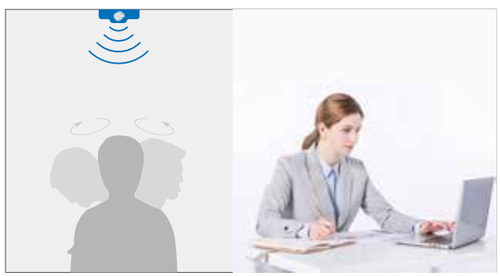
Representative Products:
MC031V RC series, MC054V RC series

In the industry, firstly launch high bay sensor with mounting height is up to 15 meters. Promote the program of using microwave sensor in the high altitude environment, such as warehouse, hall and museum.

Slight movement detected technology

Representative Products: MLC40C-M

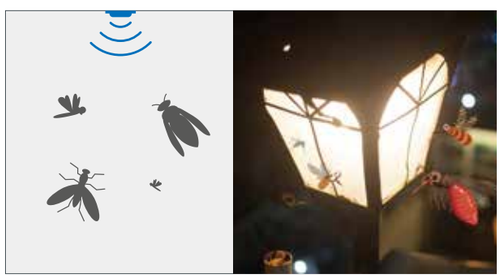
Firstly promote the program microwave sensing that microwaves are used for slight movement-detected, such as rising head, shaking head and body action, which has lay the technical foundation for true presence detecting.



Anti-breeze antenna technology and core algorithm

Representative Products: MC055S series, MC085S series

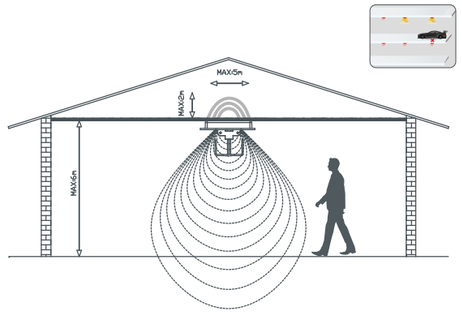
Adopt core patent algorithm and able to avoid the unexpected trigger caused by breeze, drizzle, birds or mosquitoes, which has lay the technical foundation for microwave technology applying in outdoor.



Bipolar antenna technology

Representative Products: MC098S series

Adopt bipolar antenna. The product with small size, high gain and large beam, suitable for tri-proof lights, strip lights and so on. Solve the problems of short detecting distance and unstable performance when being used in park.



5.8G half-wave bending antenna technology

Representative Products: MC002D EDI series

Adopt half-wave bending antenna patent technology. The product, with high gain, small back bean, no triggering and not penetrating wall, solve the feild problems of microwave sensing.

DIRECTORY

New products

01-06

On/Off function

MC030S L 09
MC090S E 10
MC119S 11
MC098S，MC098S 1 12
MC098S 2 RC 13
MC098S F1 14
MC076S 15
MC628S RC 16
MC085S RA/MC085S RB 17

Dimming function

MC0601V 21
MC083V RC 22
MC087V RC 23
MC628V RC 24
MC077V RC 25
MC053V RF+MW05 26
MC002D 6 27
MC087D RC 28
MC087D 1 29
MC002D EDI A/A1/B/C 30
MLC18C-NDP2/MLC28C-NDP2 31
MLC16C-DP2/MLC25C-DP2 32
MLC18C-PRF R 33
MLC20C-PS1 35
MLC20C-NPS, MLC40C-NPS，MLC60C-NPS 36
MC103S 37

European/American universal version

MC090S U 41
MC601V/MC083V RC 42
MC606V 43
MC605V/D 44
MC613V D RC 45
MC103S+ MC097D 46
MC079D RC2 A， MC079D RC2 B 47
MC079D RC Z，MC079D RC Z Zi 48
MC079D RC3 49
MC628S RC，MC628D RC, ... 50
MC054V RC2，MC054V RC3 51
MC054V RC4 52
MC079D RC DI，MC079D RC DI L（裸板） 53
MC079D RC IR 55
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5.8G microwave module

MSP12-5GH 59
MIC08-5GH,MIC08-5GL 60
MSP08-5GH RC 61
MIC01-5GH01,MIC06-5GH RC1 62

Daylight sensor

MS02 65
MS11 66
MS10 A/MS10 B 67
MS18 69
MS19 70

Remote control

MH10 73
MH12 74
MH11 74
MH03 75
MH13 75
MH14 76

DIRECTORY

Ceiling lamp

MC030S L ····· 09

MC090S E ····· 10

MC119S ····· 11

MC098S，MC098S 1 ····· 12

MC098S 2 RC ····· 13

MC098S F1 ····· 14

MC0601V/MC083V RC ····· 21/22

MC087V RC ····· 23

MC053V RF+MW05 ····· 26

MC002D 6 ····· 27

MC087D RC, MC087D 1 ····· 28/29

MC002D EDI A/A1/B/C ····· 30

MLC18C-NDP2/MLC28C-NDP2 ····· 31

MLC16C-DP2/MLC25C-DP2 ····· 32

MLC18C-PRF R ····· 33

MLC20C-PS1 ····· 35

MSP12-5GH ····· 59

MIC08-5GH,MIC08-5GL ····· 60

MSP08-5GH RC ····· 61

MIC01-5GH01,MIC06-5GH RC1 ····· 62

Tri-proof light

MC098S，MC098S 1 ····· 12

MC098S 2 RC，MC098S F1 ····· 13/14

MC076S ····· 15

MC628S RC ····· 16

MC0601V/MC083V RC ····· 21/22

MC087V RC ····· 23

MC628V RC ····· 24

MC053V RF+MW05 ····· 26

MC077V RC ····· 25

MC087D RC, MC087D 1 ····· 28/29

MC002D EDI A/A1/B/C ····· 30

MLC20C-PS1 ····· 35

MLC20C-NPS, MLC40C-NPS，MLC60C-NPS ····· 36

MC605V/D ····· 44

MC613V D RC ····· 45

MC103S+ MC097D ····· 28

MLC18C-NDP2/MLC28C-NDP2 ····· 31

MLC16C-DP2/MLC25C-DP2 ····· 32

Flood light

MC085S RA/MC085S RB ····· 17

MSP12-5GH ····· 59

MIC08-5GH,MIC08-5GL ····· 60

MIC01-5GH01,MIC06-5GH RC1 ····· 62

Wall light

MC030S L ····· 09

MC090S E ····· 10

MC119S ····· 11

MC002D 6 ····· 27

MC087D RC, MC087D 1 ····· 28/29

MC002D EDI A/A1/B/C ····· 30

MC090S U ····· 41

MC601V/MC083V RC ····· 42

MC606V ····· 43

Light bulb/tube

MSP12-5GH ····· 59

MIC08-5GH,MIC08-5GL ····· 60

MSP08-5GH RC ····· 61

MIC01-5GH01,MIC06-5GH RC1 ····· 62

Panel light

MSP12-5GH ····· 59

MIC08-5GH,MIC08-5GL ····· 60

MIC01-5GH01,MIC06-5GH RC1 ····· 62

MS10 ····· 29

Highbay light

MC0601V/MC083V RC ····· 21/22

MC601V+MC083V RC ····· 42

MC606V ····· 43

MC079D RC2 A/MC079D RC2 B ····· 47

MC079D RC Z/MC079D RC Z Zi ····· 48

MC079D RC3 ····· 49

MC628S RC，MC628D RC, MC628V RC ····· 50

MC054V RC2，MC054V RC3 ····· 51

MC054V RC4 ····· 52

MC079D RC DI，MC079D RC DI L（裸板） ····· 53

MC079D RC IR ····· 55

MC628D B1 ····· 56

Troffer lamp

MC605V/D ····· 44

MC613V D RC ····· 45

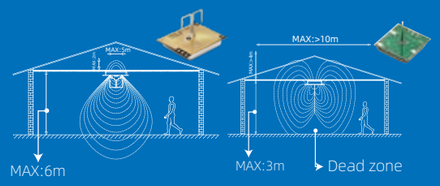
MC103S+ MC097D ····· 46

Ceiling light sensor series

01 Dipole antenna

Patented dipole antenna, low side lobe, solve the pain point of false triggering when microwave module installs below LED metal tray.

Very low standby power consumption



02 Low power consumption

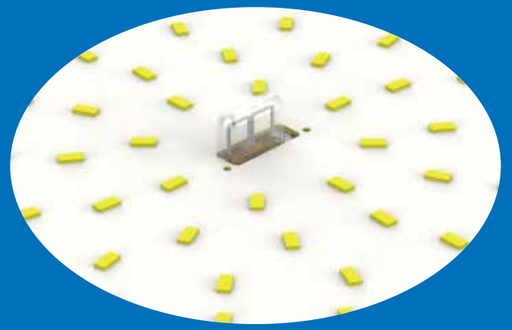
Switching power supply, no reducing PF of luminaires, comply with the latest ERP standard.

03 Low-impedance antenna

Adopts patented low-impedance antenna, make sure bulk orders comply with RED approval, no need a separate debugging during lighting RED certifying.

Low-impedance antenna

Low impedance microwave antenna, can effectively resist 5G, WiFi, Bluetooth and other wireless signal interference.



Recommended models

MC119S

Recommended reasons

1.Ultra-low power consumption 0.1W

2.Compact size

See page 11 for details

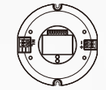
MC098 series

Recommended reasons

1.Small cut hole，Ultra-thin，Easy installation

2.Make sure bulk orders comply with RED approval,

See page 12-14 for details



Sensor Dim LED driver series for ceiling light

01 RED approval

Adopts patented low-impedance antenna, make sure bulk orders comply with RED approval, no need a separate debugging during lighting RED certifying.

02 Low power consumption

Ultra-low power consumption 0.1W assists saving energy and reducing carbon emission.

0.1w

03 Flicker-free

Flicker-free, comply with the latest ERP standard.

04 Anti-interference capability

Strong anti-interference capability, no false-triggering in metal space. Anti-interference of minor motion signal, such as flies.

Recommended models

MLC18C-NDP2/MLC28C-NDP2

See page 31 for details

MLC16C-DP2/MLC25C-DP2

See page 32 for details

Recommended reasons

1. Flicker-free

2. Ultra-low power consumption 0.1W

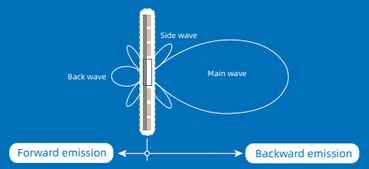
Tri-proof light sensor series

01 Dipole antenna

Patented bend antenna, low side lobe, solve the pain point of false triggering when microwave module installs below LED metal tray.

low side lobe,Small cut hole

When the side lobe is low reflected by the metal and the phase of the front wave does not coincide, the signal is not received, then there is no trigger caused by people, also known as non-self-excitation.



02 2.Flexible installation

Convenient built-in/external installation;

Recommended models

MC002D EDI series

Recommended reasons

1. Not triggered by mistake, not self-excited

See page 30 for details

MC098 series

Recommended reasons

1. Small cut hole，Ultra-thin，Easy installation
2. make sure bulk orders comply with RED approval,

See page 12-14 for details

Tri-proof light sensor series

Works with multiple sensor heads

MLC20C-PS1-1

MC087D RC

MC002D 6

01 Low power consumption

Low power consumption 0.3W, flicker-free, comply with the latest ERP standard.

Recommended models

MLC20C-NPS/MLC40C-NPS/MLC60C-NPS

See page 36 for details

Recommended reasons

1. Works with multiple sensor heads / Flick-free
2. Low power consumption 0.3W

Highbay light sensor series

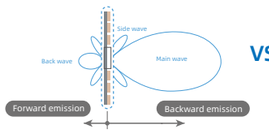
01 No false triggering

Optional high/low sensitivity mode, can work in metal installations without false triggering.

02 High mounting

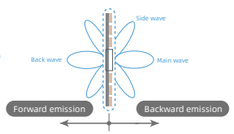
Uses patented high gain antenna to increase 2-3 times detecting signal than normal microwave antenna, reliable motion detecting, suitable to high mounting.

HG antenna



VS

Plain plane antenna



Adopt high-gain microwave antenna to solve the false triggering of microwave sensor installed in high mounting location, such as false triggering and incorrect actions.

Large side lobe, poor environmental adaptability, installation of metal roof warehouse and other environments easy to trigger (unattended light).

Zhaga book 18

Movement motion | Daylight harvesting | Wireless networking

PIR sensor | Universal waterproof cover | Microwave motion sensor | Daylight switch | Wireless networking

03 Strong temperature adaptability

Working temperature is -35~75°C, detecting range is stable and with good consistency, not affected by temperature change.

Recommended models

MC079D RC series

Recommended reasons

1. High gain antenna/ High mounting
2. IP65 water proof/ Zhaga book 18 interface

See page 48-50/53 for details

5.8G sensor module series

Low-impedance antenna

Low impedance microwave antenna, can effectively resist 5G, WiFi, Bluetooth and other wireless signal interference.

- Compact size, convenient installation;
- Fully automated production process with "0" defect rate;
- The mass has passed RED and FCC certification;
- High precision single chip integration process

High cost performance

Recommended models

MSP12-5GH

Recommended reasons

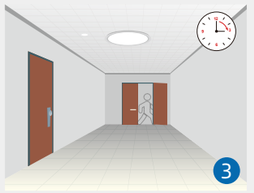
1.Make sure bulk orders comply with RED and FCC approval, no need a separate debugging during lighting RED certifying.

See page 59 for details

On/Off function

With sufficient ambient light, the light will not be switched on.

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



After elapse of stand-byperiod, the sensor switches off the light if no motion is detected in the detection zone.

MC030S L 09

MC090S E 10

MC119S 11

MC098S/MC098S 1 12

MC098S 2 RC 13

MC098S F1 14

MC076S 15

MC628S RC 16

MC085S RA
MC085S RB 17

Classical version/
Exceed ten million sales verification

MC030S L

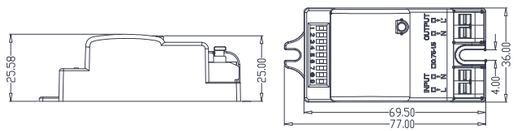
On/Off function | Movement motion | Light threshold | 5 years warranty

Park

Corridor

Stairwell

CE RED



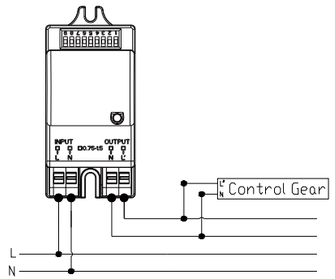
Product features

- Classical version ON/OFF sensor, Sold ten million pcs already.
- High reliability, high quality model.

Application scenarios

Suitable for ceiling lamp, wall lamp and other lamps installation.

Wiring



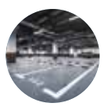
Product parameters

Operating Voltage	220-240Vac, 50/60Hz		
Rated Load	800W（Resistive） 400W（Inductive）		
HF System	5.8 GHz±75MHz		
Hold Time	5S/30S/90S/3min/20min/30min		
Daylight Sensor	2Lux/10Lux/25Lux/50Lux/Disable		
Sensitivity	100%/75%/50%/25%/10%		
Transmitting Power	1mW Max.		
Stand-by Power	≤0.1W		
Detection Area	≥3m	Stand-by DIM Level	N/A
Typical Mounting Height	3m (6m Max.)	Operating Temperature	-20℃~60℃
Stand-by Period	N/A	IP Rating	IP20

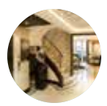
Low-impedance antenna/
Strong anti-interference capability

MC090S E

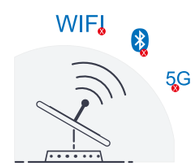
On/Off function | Movement motion | 5.8G low impedance antenna | Light threshold | 5 years warranty


Park

Corridor

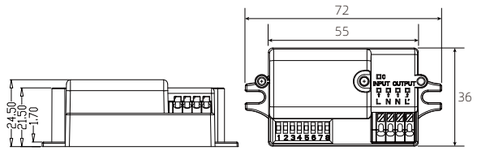

Stairwell

CE RED



Low-impedance antenna

Low impedance microwave antenna, can effectively resist 5G, WiFi, Bluetooth and other wireless signal interference.



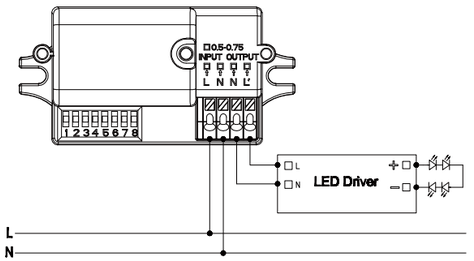
Product features

- Adopts patented low-impedance antenna, make sure bulk orders comply with RED approval, no need a separate debugging during lighting RED certifying.
- Strong anti-interference capability, no false-triggering in metal space. Anti-interference of minor motion signal, such as flies.
- Infrared light filtering technology, no deviation for daylight detecting in sunny, cloudy or rainy day.

Application scenarios

Suitable for ceiling lamp, wall lamp and other lamps installation.

Wiring



Product parameters

Operating Voltage	220-240Vac, 50/60Hz		
Rated Load	800W（Resistive） 400W（Inductive）		
HF System	5.8 GHz±75MHz		
Hold Time	5S/30S/1min/3min/5min/10min/20min/30min		
Daylight Sensor	2Lux/10Lux/25Lux/50Lux/Disable		
Sensitivity	100% / 75% / 50% / 25%		
Transmitting Power	0.5mW Max.		
Stand-by Power	≤0.5W		
Detection Area	≥3m	Stand-by DIM Level	N/A
Typical Mounting Height	3m (6m Max.)	Operating Temperature	-25℃~60℃
Stand-by Period	N/A	IP Rating	IP20

Low-impedance antenna/ Ultra-low power consumption 0.1W/ Compact size

MC119S

5.8G low impedance antenna | On/Off function | Movement motion | Light threshold | 5 years warranty

Park

Corridor

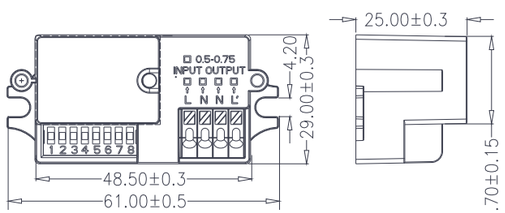
Stairwell

CE RED

0.1W

Very low standby power consumption

Ultra-low power consumption 0.1W assists saving energy and reducing carbon emission.



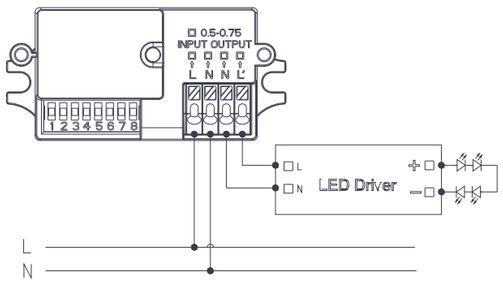
Product features

- Ultra-low power consumption 0.1W assists saving energy and reducing carbon emission.
- Adopts patented low-impedance antenna, make sure bulk orders comply with RED approval, no need a separate debugging during lighting RED certifying.
- Strong anti-interference capability, no false-triggering in metal space. Anti-interference of minor motion signal, such as flies.
- Compact size, flexible mounting, fit for various lighting fixtures.

Application scenarios

Suitable for ceiling lamp, wall lamp and other lamps installation.

Wiring



Product parameters

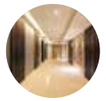
Operating Voltage	220-240Vac, 50/60Hz		
Rated Load	400W（Resistive） 200W（Inductive）		
HF System	5.8 GHz±75MHz		
Hold Time	5S/30S/1min/3min/5min/10min/20min/30min		
Daylight Sensor	2Lux/10Lux/25Lux/50Lux/Disable		
Sensitivity	100% / 75% / 50% / 25%		
Transmitting Power	1mW Max.		
Stand-by Power	≤0.1W		
Detection Area	≥3m	Stand-by DIM Level	N/A
Typical Mounting Height	3m (4m Max.)	Operating Temperature	-20℃~60℃
Stand-by Period	N/A	IP Rating	IP20

Dipole antenna/ Small cut hole

MC098S/MC098S 1

Dipole antenna | 5.8G low impedance antenna | On/Off function | Movement motion | Light threshold | 5 years warranty

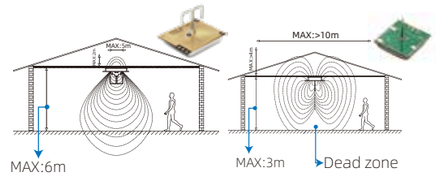
Park

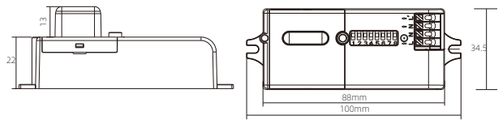

Corridor

Stairwell

CE RED

Dipole antenna VS Traditional normal antenna



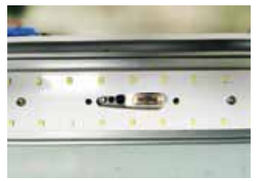


Product features

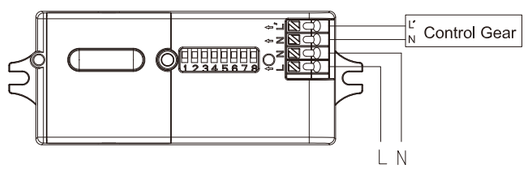
- Patented dipole antenna, low side lobe, solve the pain point of false triggering when microwave module installs below LED metal tray.
- Adopts patented low-impedance antenna, make sure bulk orders comply with RED approval, no need a separate debugging during lighting RED certifying.
- Strong anti-interference capability, no false-triggering in metal space. Anti-interference of minor motion signal, such as flies.

Application scenarios

Suitable for the installation of Tri-proof lamp/ceiling lamp and other lamps.



Wiring



Product parameters

Operating Voltage	220-240Vac, 50/60Hz		
Rated Load	800W（Resistive） 400W（Inductive）		
HF System	5.8 GHz±75MHz		
Hold Time	5S/30S/90S/5min/20min/30min		
Daylight Sensor	2lux/10lux/30lux/50lux/Disable		
Sensitivity	100% / 75% / 50% / 25%		
Transmitting Power	0.5mW Max.		
Stand-by Power	≤0.5W		
Detection Area	≥3m	Stand-by DIM Level	N/A
Typical Mounting Height	3m (6m Max.)	Operating Temperature	-25℃~60℃
Stand-by Period	N/A	IP Rating	IP20

Dipole antenna/ Small cut hole

MC098S 2 RC

Dipole antenna | 5.8G low impedance antenna | On/Off function | Movement motion | Light threshold | 5 years warranty

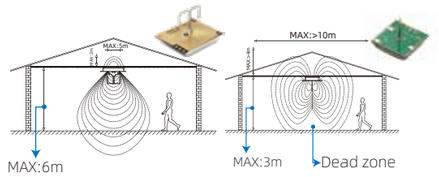
Park

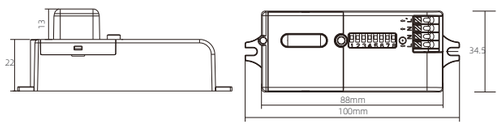
Corridor

Stairwell

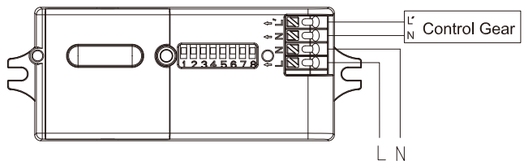
CE RED

Dipole antenna VS Traditional normal antenna





Wiring

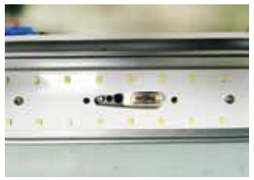


Product features

- Switching power supply, no reducing PF of luminaires, comply with the latest ERP standard.
- Patented dipole antenna, low side lobe, solve the pain point of false triggering when microwave module installs below LED metal tray.
- Adopts patented low-impedance antenna, make sure bulk orders comply with RED approval, no need a separate debugging during lighting RED certifying.
- Strong anti-interference capability, no false-triggering in metal space. Anti-interference of minor motion signal, such as flies.

Application scenarios

Suitable for the installation of Tri-proof lamp/ceiling lamp and other lamps.



Product parameters

Operating Voltage	220-240Vac, 50Hz/60Hz		
Rated Load	800W（Resistive） 400W（Inductive）		
HF System	5.8 GHz±75MHz		
Hold Time	5S/30S/90S/5min（Dip switch setting） 10S/90S/3min/10min (Via Remote setting）		
Daylight Sensor	25lux/Disable（Dip switch setting） 5lux/15lux/50lux/Disable (Via Remote setting）		
Sensitivity	100%/75%/50%/25%（Dip switch setting） 100%/50% (Via Remote setting）		
Transmitting Power	0.5mW Max.		
Stand-by Power	≤0.5W		
Detection Area	≥3m	Stand-by DIM Level	N/A
Typical Mounting Height	3m (6m Max.)	Operating Temperature	-25℃~60℃
Stand-by Period	N/A	IP Rating	IP20

Dipole antenna/ Small cut hole/ Ultra-thin

MC098S F1

Dipole antenna | 5.8G low impedance antenna | On/Off function | Movement motion | Light threshold | 5 years warranty

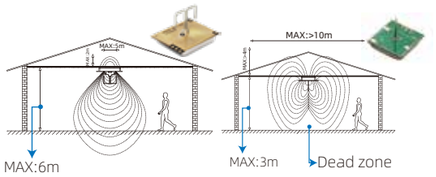
Park

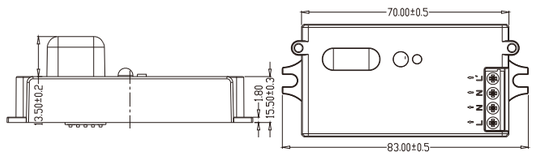
Corridor

Stairwell

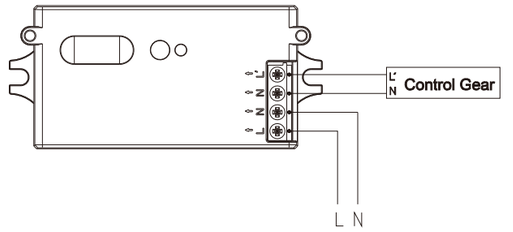
CE RED

Dipole antenna VS Traditional normal antenna





Wiring

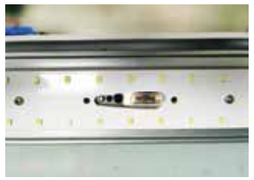


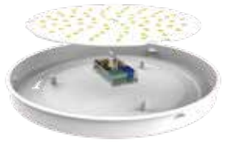
Product features

- Switching power supply, no reducing PF of luminaires, comply with the latest ERP standard.
- Patented dipole antenna, low side lobe, solve the pain point of false triggering when microwave module installs below LED metal tray.
- Adopts patented low-impedance antenna, make sure bulk orders comply with RED approval, no need a separate debugging during lighting RED certifying.
- Strong anti-interference capability, no false-triggering in metal space. Anti-interference of minor motion signal, such as flies.

Application scenarios

Suitable for the installation of Tri-proof lamp/ceiling lamp and other lamps.





Product parameters

Operating Voltage	220-240Vac, 50Hz/60Hz		
Rated Load	800W（Resistive） 400W（Inductive）		
HF System	5.8 GHz±75MHz		
Hold Time	5S/30S/90S/5min（Dip switch setting） 10S/90S/3min/10min (Via Remote setting）		
Daylight Sensor	25lux/Disable（Dip switch setting） 5lux/15lux/50lux/Disable (Via Remote setting）		
Sensitivity	100%/75%/50%/25%（Dip switch setting） 100%/50% (Via Remote setting）		
Transmitting Power	1mW Max.		
Stand-by Power	≤0.5W		
Detection Area	≥2.5m	Stand-by DIM Level	N/A
Typical Mounting Height	3m (6m Max.)	Operating Temperature	-25℃~60℃
Stand-by Period	N/A	IP Rating	IP20

Rod antenna/ Small cut hole/ Cost-effective

MC076S

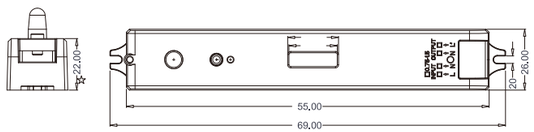
On/Off function | Movement motion | Light threshold | 5 years warranty

CE RED

Park

Warehouse

Workshop



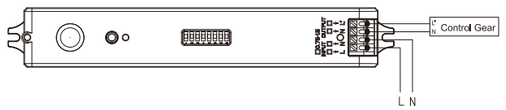
Product features

- Rod antenna/ Small cut hole/ Cost-effective

Application scenarios

Suitable for the installation of Tri-proof lamps.

Wiring



Product parameters

Operating Voltage	220-240Vac, 50Hz/60Hz		
Rated Load	800W（Resistive） 400W（Inductive）		
HF System	5.8 GHz±75MHz		
Hold Time	5S/30S/90S/5min/20min/30min		
Daylight Sensor	2lux/10lux/30lux/50lux/Disable		
Sensitivity	100%/75%/50%/25%		
Transmitting Power	1mW Max.		
Stand-by Power	≤0.5W		
Detection Area	≥3m	Stand-by DIM Level	N/A
Typical Mounting Height	3m (6m Max.)	Operating Temperature	-25℃~60℃
Stand-by Period	N/A	IP Rating	IP20

Low-impedance antenna/ IP65 waterproof

MC628S RC

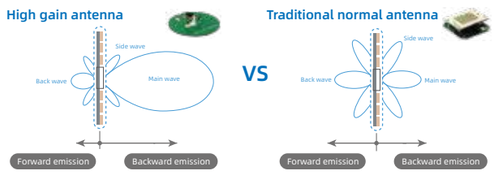
High gain antenna | On/Off function | Movement motion | Light threshold | 5 years warranty

CE RED

Park

Warehouse

Workshop



Adopt high-gain microwave antenna to solve the false triggering of microwave sensor installed in high mounting location, such as false triggering and incorrect actions.

Large side lobe, poor environmental adaptability, installation of metal roof warehouse and other environments easy to trigger (unattended light).

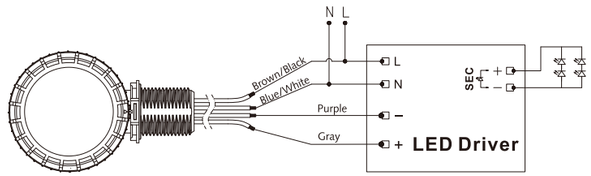
Product features

- Uses patented high gain antenna to increase 2-3 times detecting signal than normal microwave antenna, reliable motion detecting, suitable to high mounting.
- Optional high/low sensitivity mode, can work in metal installations without false triggering.
- Working temperature is -35~55℃, detecting range is stable and with good consistency, not affected by temperature change.

Application scenarios

Suitable for the installation of Tri-proof lamps.

Wiring



Product parameters

Operating Voltage	220-240Vac, 50Hz/60Hz		
Rated Load	800W（Resistive） 400W（Inductive）		
HF System	5.8 GHz±75MHz		
Hold Time	5s/30s/1min/3min/5min/10min/20min/30min		
Daylight Sensor	5lux/15lux/30lux/50lux/100lux/150lux/Disable		
Sensitivity	25%/50%/75%/100%		
Transmitting Power	0.5mW Max.		
Stand-by Power	<1W		
Detection Area	≥3m	Stand-by DIM Level	N/A
Typical Mounting Height	6m（12m Max）	Operating Temperature	-35℃~55℃
Stand-by Period	N/A	IP Rating	IP65

Low-impedance antenna/ IP65 waterproof

MC085S RA/MC085S RB

On/Off function | Movement motion | Light threshold | 5 years warranty

CE RED

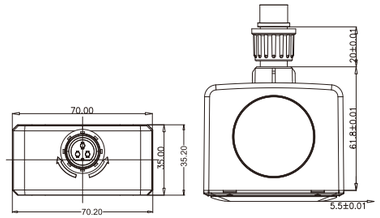
Park

Warehouse

Courtyard

MC085S RA

MC085S RB



Anti-breeze antenna technology and core algorithm

Adopt core patent algorithm and able to avoid the accidental trigger caused by breeze, drizzle, birds or mosquitoes, which has lay the technical foundation for microwave technology applying in outdoor.

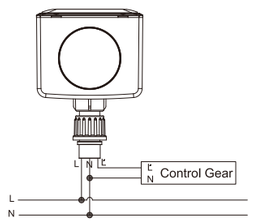
Product features

- Strong anti-interference capability, no false-triggering in metal space. Anti-interference of minor motion signal, such as flies.

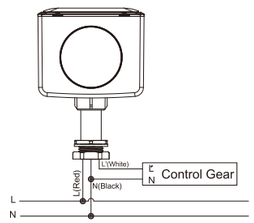
Application scenarios

Suitable for floodlight installation.

Wiring



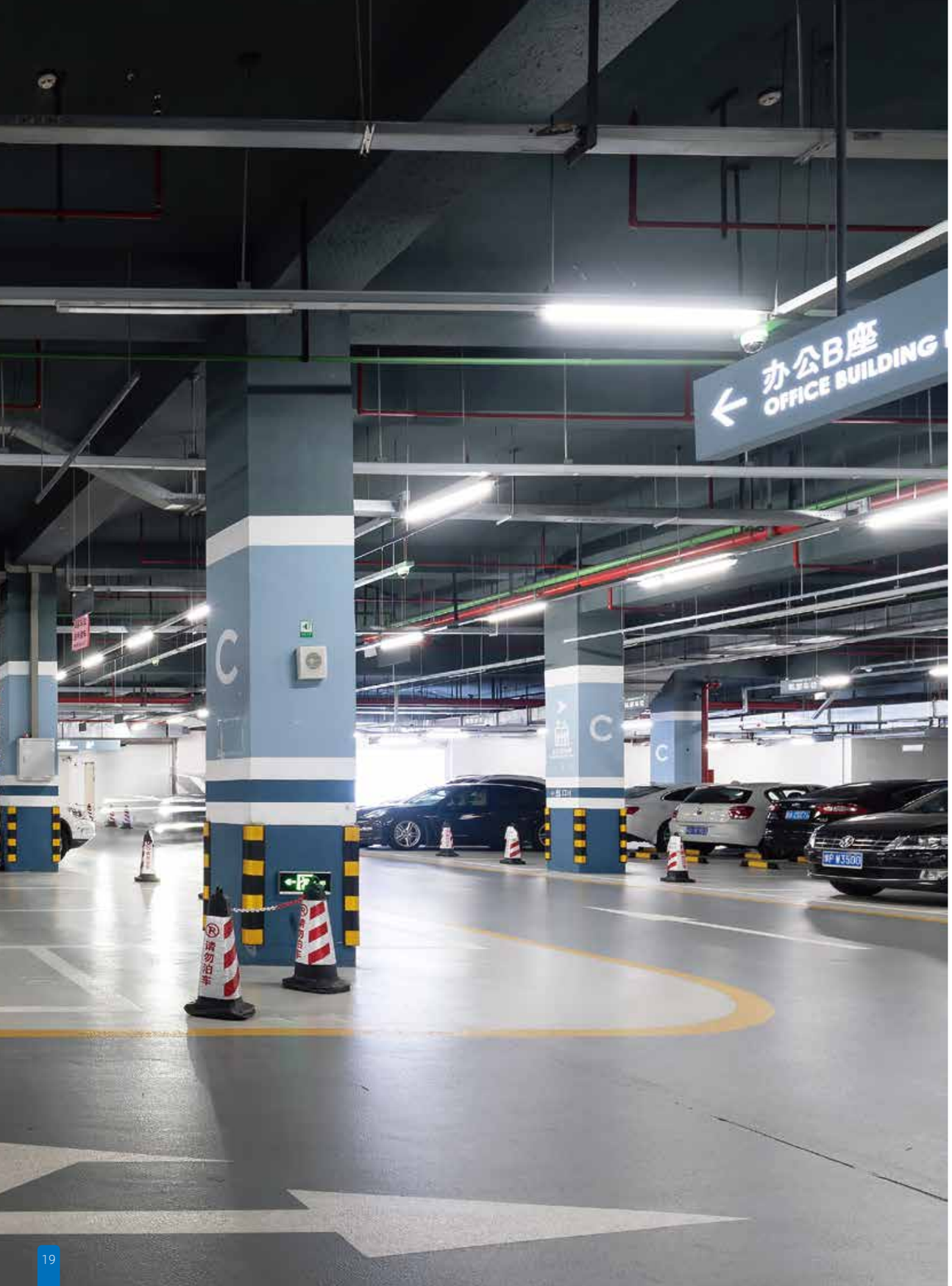
MC085S RA



MC085S RB

Product parameters

Operating Voltage	220-240Vac, 50Hz/60Hz		
Rated Load	800W（Resistive） 400W（Inductive）		
HF System	5.8 GHz±75MHz		
Hold Time	5S/30S/1min/3min/20min/30min		
Daylight Sensor	Daylight threshold: 2Lux/10Lux/25Lux/50Lux/100Lux/Disable Daylight switch: 10/50lux, 25/75lux, 50/100lux, 100/200lux, 150/300lux, Disable		
Sensitivity	100%/75%/50%/25%		
Transmitting Power	1mW Max.		
Stand-by Power	≤0.5W		
Detection Area	≥3m	Stand-by DIM Level	N/A
Typical Mounting Height	3m（6m Max）	Operating Temperature	-25℃~60℃
Stand-by Period	N/A	IP Rating	IP65



Dimming function

AC operation /DC operation /Sensor Dim LED driver

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

When motion is detected,thesensor will switch on the light to 100% brighteness.

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

MC601V 21

MC083V RC 22

MC087V RC 23

MC628V RC 24

MC077V RC 25

MC053V RF+MW05 26

MC002D 6 27

MC087D RC 28

MC087D 1 29

MC002D EDI A/A1 30

MC002D EDI B 30

MC002D EDI C 30

MLC18C-NDP2
MLC28C-NDP2 31

MLC16C-DP2
MLC25C-DP2 32

MLC18C-PRF R 33

MLC20C-PS1 35

MLC20C-NPS
MLC40C-NPS
MLC60C-NPS 36

MC103S 37

Classical version/ High mounting
MC601V

High gain antenna | On/Off function | dimming function | Movement motion | Light threshold | 5 years warranty

Park

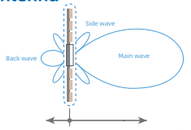
Warehouse

Corridor

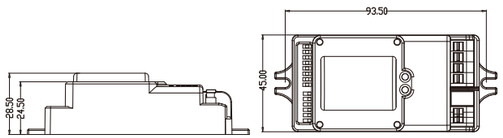
CE RED cULus LISTED FC

MH10

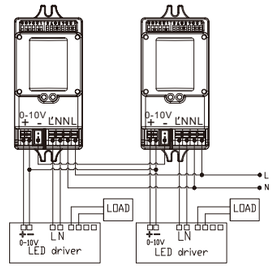
HG antenna



Adopt high-gain microwave antenna to solve the false triggering of microwave sensor installed in high mounting location, such as false triggering and incorrect actions.



Wiring



Product features

- Uses patented high gain antenna to increase 2-3 times detecting signal than normal microwave antenna, reliable motion detecting, suitable to high mounting.
- Optional high/low sensitivity mode, can work in metal installations without false triggering.
- Working temperature is -30~70℃, detecting range is stable and with good consistency, not affected by temperature change.

Application scenarios

Suitable for the installation of Tri-proof lamp, ceiling lamp, Highbay light and other lamps.

Product parameters

Operating Voltage	220-240Vac, 50/60Hz 120/277Vac, 50/60Hz		
Rated Load	1200W（Resistive）800W（Inductive） 400W ballast@120Vac 1000W ballast@277Vac		
HF System	5.8 GHz±75MHz		
Hold Time	5S/30S/90S/3min/20min/+∞		
Daylight Sensor	2Lux/5Lux/10Lux/25Lux/50Lux/100Lux/Disable		
Sensitivity	100%/75%/50%/10%		
Stand-by Period	0S/5S/5min/10min/30min/1h/+∞		
Stand-by DIM Level	10%/20%/30%/50%		
Stand-by Power	≤1W	Transmitting Power	0.5mW Max.
Detection Area	≥3m	Operating Temperature	-30℃ ~ 70℃
Typical Mounting Height	9m（12m Max）	IP Rating	IP20

Classical version/ High mounting
MC083V RC

High gain antenna | On/Off function | dimming function | Movement motion | Light threshold | 5 years warranty

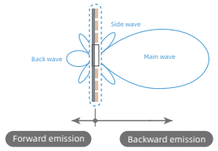
Park

Corridor

Stairwell

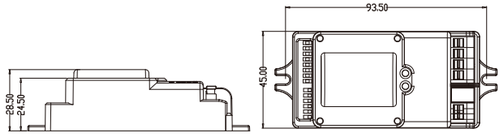
CE RED cULus LISTED FC

MH10



HG antenna

Adopt high-gain microwave antenna to solve the false triggering of microwave sensor installed in high mounting location, such as false triggering and incorrect actions.

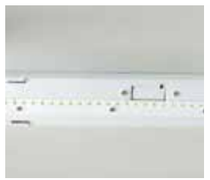


Product features

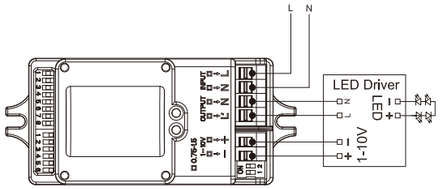
- Uses patented high gain antenna to increase 2-3 times detecting signal than normal microwave antenna, reliable motion detecting, suitable to high mounting.
- Optional high/low sensitivity mode, can work in metal installations without false triggering.
- Working temperature is -25~60℃, detecting range is stable and with good consistency, not affected by temperature change.

Application scenarios

Suitable for the installation of Tri-proof lamp/ceiling lamp and other lamps.



Wiring



Product parameters

Operating Voltage	220-240Vac, 50/60Hz 120/277Vac, 50/60Hz		
Rated Load	1200W（Resistive）800W（Inductive） 400W ballast@120Vac 1000W ballast@277Vac		
HF System	5.8 GHz±75MHz		
Hold Time	5S/30S/90S/3min/20min/+∞		
Daylight Sensor	2Lux/5Lux/10Lux/25Lux/50Lux/100Lux/Disable		
Sensitivity	100%/75%/50%/10%		
Stand-by Period	0S/5S/5min/10min/30min/1h/+∞		
Stand-by DIM Level	10%/20%/30%/50%		
Stand-by Power	≤1W	Transmitting Power	1mW Max.
Detection Area	≥3m	Operating Temperature	-25℃ ~ 60℃
Typical Mounting Height	9m（12m Max）	IP Rating	IP20

Dipole antenna/ Small cut hole
MC087V RC

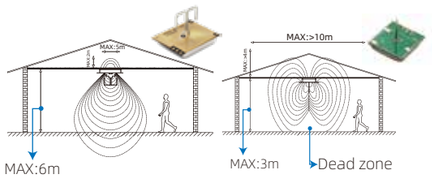
5.8G low impedance antenna | Dipole antenna | On/Off function | dimming function | Movement motion | Light threshold | 5 years warranty

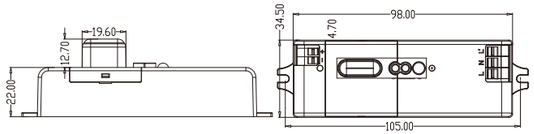
Park

CE RED cULus LISTED FC

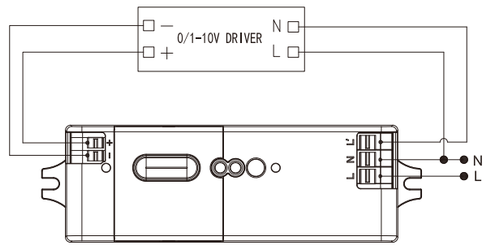
MC087V RC

Dipole antenna VS Traditional normal antenna





Wiring

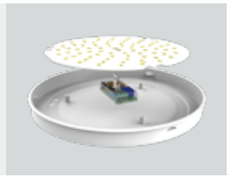


Product features

- Patented dipole antenna, low side lobe, solve the pain point of false triggering when microwave module installs below LED metal tray.
- Adopts patented low-impedance antenna, make sure bulk orders comply with RED approval, no need a separate debugging during lighting RED certifying.
- Strong anti-interference capability, no false-triggering in metal space. Anti-interference of minor motion signal, such as flies.

Application scenarios

Suitable for the installation of Tri-proof lamp/ceiling lamp and other lamps.



Product parameters

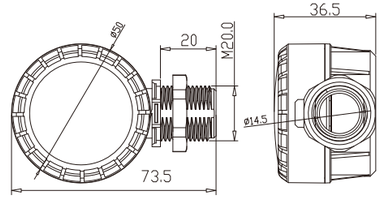
Operating Voltage	220-240Vac, 50/60Hz 120/277Vac, 50/60Hz		
Rated Load	800W（Resistive） 400W（Inductive） 2A E-ballast		
HF System	5.8 GHz±75MHz		
Hold Time	5S/30S/1min/3min/5min/10min/20min/30min/+∞（Set by MH10）		
Daylight Sensor	5lux/15Lux/30Lux/50Lux/100lux/150lux/Disable（Set by MH10）		
Sensitivity	100%/75%/50%/25%（Set by MH10）		
Stand-by Period	0s/10S/1min/3min/5min/10min/30min/+∞(Set by MH10)		
Stand-by DIM Level	10%/20%/30%/50%（Set by MH10）		
Stand-by Power	≤1W	Transmitting Power	0.5mW Max.
Detection Area	≥3m	Operating Temperature	-25℃~60℃
Typical Mounting Height	3m（6m Max）	IP Rating	IP20

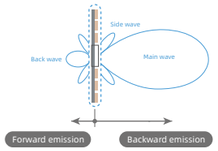
High gain antenna/ High mounting/ IP65 water proof
MC628V RC

High gain antenna | On/Off function | dimming function | Movement motion | Light threshold | 5 years warranty

Park

CE RED





HG antenna

Adopt high-gain microwave antenna to solve the false triggering of microwave sensor installed in high mounting location, such as false triggering and incorrect actions.

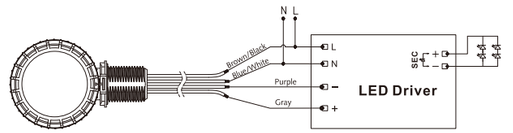
Product features

- Uses patented high gain antenna to increase 2-3 times detecting signal than normal microwave antenna, reliable motion detecting, suitable to high mounting.
- Optional high/low sensitivity mode, can work in metal installations without false triggering.
- Working temperature is -35~55℃, detecting range is stable and with good consistency, not affected by temperature change.

Application scenarios

Suitable for the installation of Tri-proof lamps.

Wiring



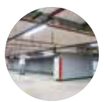
Product parameters

Operating Voltage	220-240Vac, 50/60Hz 120/277Vac, 50/60Hz		
Rated Load	0-10Voutput, 50mA Max. 0-10Voutput, 50mA Max.		
HF System	5.8 GHz±75MHz		
Hold Time	0s/10s/1min/3min/5min/10min/30min/+∞		
Daylight Sensor	5lux/15lux/30lux/50lux/100lux/150lux/Disable		
Sensitivity	25%/50%/75%/100%		
Stand-by Period	0s/10s/1min/3min/5min/10min/30min/+∞		
Stand-by DIM Level	10%/20%/30%/50%		
Stand-by Power	1W	Transmitting Power	0.5mW Max.
Detection Area	≥3m	Operating Temperature	-35℃...+55℃
Typical Mounting Height	6m（12m Max）	IP Rating	IP65

Rod antenna/ Small cut hole/ Cost-effective

MC077V RC

On/Off function | Dimming function | Movement motion | Light threshold | 5 years warranty



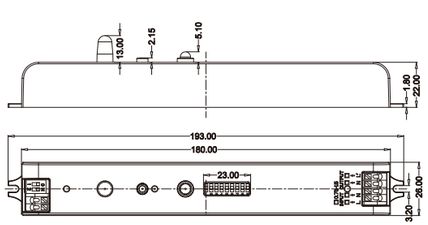
Park

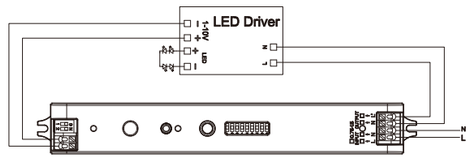
Stairwell

CE RED

MC077V RC

MH10





Wiring

Product features

- Rod antenna/ Small cut hole/ Cost-effective

Application scenarios

Suitable for the installation of Tri-proof lamps.

Product parameters

Operating Voltage	120/277Vac, 50/60Hz		
Rated Load	0-10Voutput, 50mA Max. 0-10Voutput, 50mA Max.		
HF System	5.8 GHz±75MHz		
Hold Time	0s/10s/1min/3min/5min/10min/30min/+∞		
Daylight Sensor	5lux/15lux/30lux/50lux/100lux/150lux/Disable		
Sensitivity	25%/50%/75%/100%		
Stand-by Period	0s/10s/1min/3min/5min/10min/30min/+∞		
Stand-by DIM Level	10%/20%/30%/50%		
Stand-by Power	≤0.5W	Transmitting Power	0.5mW Max.
Detection Area	≥3m	Operating Temperature	-35℃...+55℃
Typical Mounting Height	2.5-4m	IP Rating	IP20

RF wireless grouping

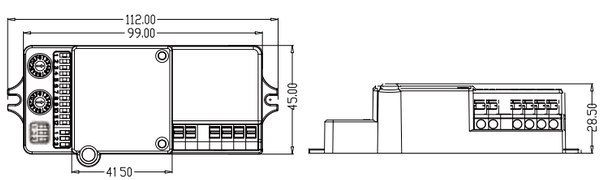
MC053V RF+MW05

Wireless networking | On/Off function | dimming function | Movement motion | Light threshold | 5 years warranty

CE RED

MC053V RF
Master

MW05
Satellite

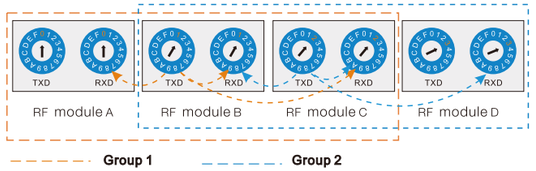


Product features

- 868MHz RF wireless grouping
- Narrow frequency communication technology to avoid co-channel interference.

RF grouping (up to 32 different groups possible)

MC053V RF has one TX channel and MW05 has one RX channel . The TX channel is used for transmitting RF signal and the RX channel is used for receiving RF signal. Use a small screwdriver to rotate the rotary switches and keep them pointed to the same channel, groups will be created automatically.

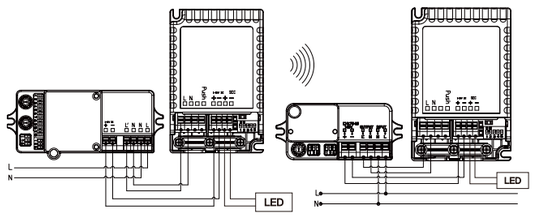


Application scenarios

Suitable for the installation of Tri-proof lamp/ceiling lamp and other lamps.

Wiring

MC053V RF+MW05



Product parameters

Operating Voltage	220V-240Vac, 50Hz		
Rated Load	800W（Resistive） 400W（Inductive）		
HF System	5.8 GHz±75MHz		
Hold Time	5S/30S/90S/3min/20min/30min/+∞		
Daylight Sensor	5lux/15Lux/30Lux/50Lux/100lux/150lux/Disable		
Sensitivity	100%/75%/50%/25%		
Stand-by Period	0S/5S/5min/10min/30min/60min/+∞		
Stand-by DIM Level	10%/20%/30%/50%		
Stand-by Power	≤1W	Transmitting Power	1mW Max.
Detection Area	≥3m	Operating Temperature	-25℃~+60℃
Typical Mounting Height	3m（6m Max）	IP Rating	IP20

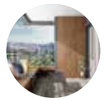
Low-impedance antenna/ Classical version

MC002D6

5.8G low impedance antenna | On/Off function | dimming function | Movement motion | Light threshold | 5 years warranty

CE RED

Bathroom



Balcony

Low-impedance antenna

Low impedance microwave antenna, can effectively resist 5G, WiFi, Bluetooth and other wireless signal interference.

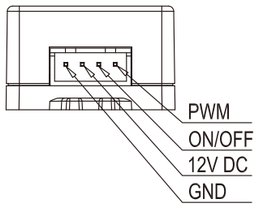
Product features

- Adopts patented low-impedance antenna, make sure bulk orders comply with RED approval, no need a separate debugging during lighting RED certifying.
- Strong anti-interference capability, no false-triggering in metal space. Anti-interference of minor motion signal, such as flies.
- Infrared light filtering technology, no deviation for daylight detecting in sunny, cloudy or rainy day.

Application scenarios

Suitable for ceiling lamp, wall lamp and other lamps installation.

Wiring



Product parameters

Operating Voltage	12±1V DC		
Output	5V PWM		
Sensitivity	100%/75%/50%25%		
Hold Time	5S/90S/3min/10min		
Daylight Sensor	5lux/15Lux/50Lux/+∞		
Stand-by Period	0s/30S/10min/+∞		
Stand-by DIM Level	20%	HF System	5.8 GHz
Transmitting Power	0.5mW Max	Mounting Height	4m（6m Max)
Maximum Working current	15mA	Operating Temperature	-25℃...+60℃
Detection Area	≥3m	IP Rating	IP20

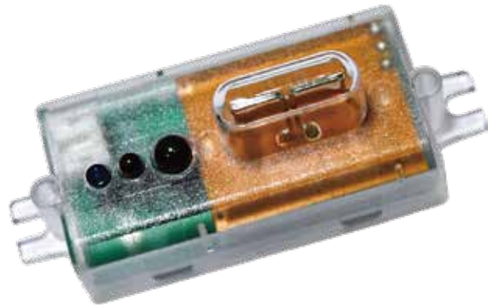
Dipole antenna/ Small cut hole

MC087D RC

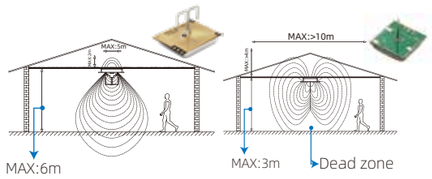
5.8G low impedance antenna | Dipole antenna | On/Off function | dimming function | Movement motion | Light threshold | 5 years warranty

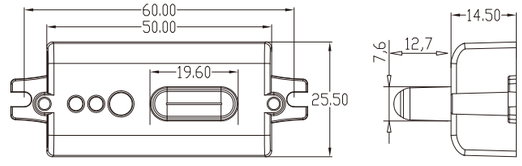
CE RED

Park



Dipole antenna VS Traditional normal antenna





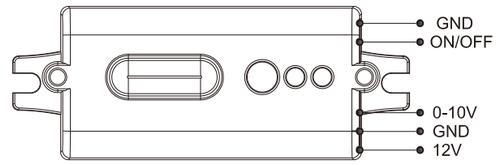
Product features

- Patented dipole antenna, low side lobe, solve the pain point of false triggering when microwave module installs below LED metal tray.
- Adopts patented low-impedance antenna, make sure bulk orders comply with RED approval, no need a separate debugging during lighting RED certifying.
- Strong anti-interference capability, no false-triggering in metal space. Anti-interference of minor motion signal, such as flies.

Application scenarios

Suitable for the installation of Tri-proof lamp/ceiling lamp and other lamps.

Wiring



Product parameters

Operating Voltage	7.5-12VDC	HF System	5.8 GHz
Output	PMW version：0-10VDC	PMW version：5V PWM	
Sensitivity	25%/50%/75%/100%(set by MH10 or MH12)		
Hold Time	5S/30S/1min/3min/5min/10min/20min/30min （set by MH10 or MH12）		
Daylight Sensor	值daylight threshold: 5lux/15Lux/30Lux/50Lux/100lux/150lux/Disable Daylight priority: (5/15/30/50lux)/150lux,100lux/200lux, 150lux/300lux （set by MH10 or MH12）		
Stand-by Period	0s/10S/1min/3min/5min/10min/30min/+∞ （set by MH10 or MH12）		
Stand-by DIM Level	10%/20%/30%/50%（set by MH10 or MH12）		
Transmitting Power	1mW Max	Mounting Height	3m（6m Max)
Maximum Working current	<25mA	Operating Temperature	-20~60℃
Detection Area	≥3m	IP Rating	IP20

Dipole antenna/ Small cut hole

MC087D 1

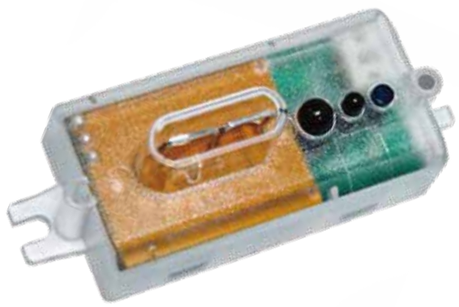
5.8G low impedance antenna | Dipole antenna | On/Off function | dimming function | Movement motion | Light threshold | 5 years warranty

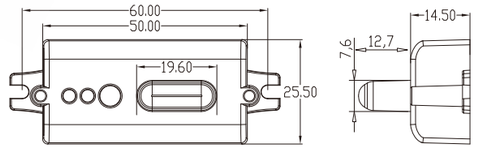
CE RED

Park

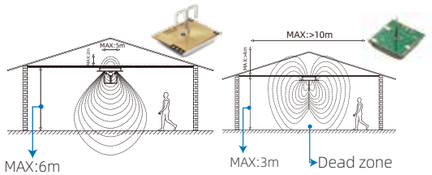
Warehouse

Corridor





Dipole antenna VS Traditional normal antenna



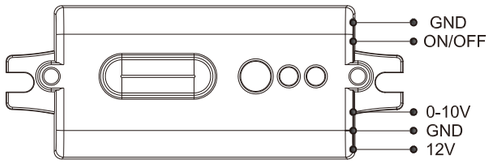
Product features

- Patented dipole antenna, low side lobe, solve the pain point of false triggering when microwave module installs below LED metal tray.
- Adopts patented low-impedance antenna, make sure bulk orders comply with RED approval, no need a separate debugging during lighting RED certifying.
- Strong anti-interference capability, no false-triggering in metal space. Anti-interference of minor motion signal, such as flies.

Application scenarios

Suitable for the installation of Tri-proof lamp/ceiling lamp and other lamps.

Wiring



Product parameters

Operating Voltage	8-15VDC		
Output	5V PWM		
Sensitivity	100%/50%		
Hold Time	5S/5min/10min/30min		
Daylight Sensor	30Lux/50Lux/100lux/Disable		
Stand-by Period	0S/3min/10min/disable		
Stand-by DIM Level	10%/30%	HF System	5.8 GHz
Transmitting Power	1mW Max	Mounting Height	3m（6m Max)
Maximum Working current	25mA	Operating Temperature	-25~70℃
Detection Area	≥3m	IP Rating	IP20

Bend antenna/ Small cut hole/ Cost-effective

MC002D EDI A/A1/B/C

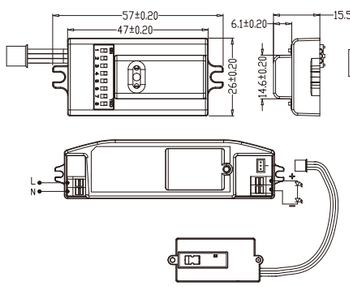
5.8G low impedance antenna | On/Off function | dimming function | Movement motion | Light threshold | 5 years warranty

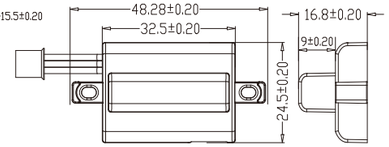
CE RED

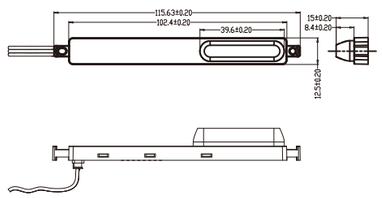
MC002D EDI A

MC002D EDI B

MC002D EDI C

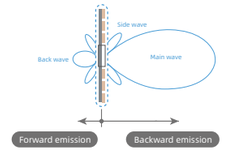






low side lobe,Small cut hole

When the side lobe is low reflected by the metal and the phase of the front wave does not coincide, the signal is not received, then there is no trigger caused by people, also known as non-self-excitation.



Product features

- Patented bend antenna, low side lobe, solve the pain point of false triggering when microwave module installs below LED metal tray.

Application scenarios

Suitable for ceiling lamp/wall lamp/Tri-proof lamp and other lamps installation.

Product parameters

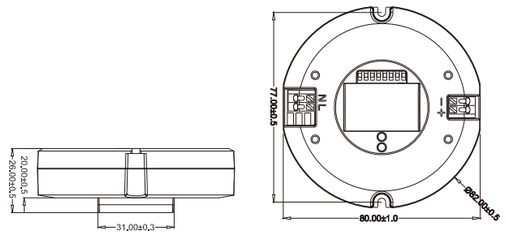
	MC002D EDI A	MC002D EDI A1	MC002D EDI B	MC002D EDI C
Operating Voltage	7.5-12VDC	7.5-12VDC	7.5-12VDC	7.5-12VDC
Output	5V PWM	5V PWM	5V PWM	5V PWM
HF System	5.8 GHz	5.8 GHz	5.8 GHz	5.8 GHz
Sensitivity	100%/75%/50%/25%	100%/75%/50%/25%	100%/50%/25%(set by remote control MH11)	100%/75%/50%/25%
Hold Time	5S/1min/3min/10min	5S/1min/3min/10min	5S/1min/5min/10min(set by remote control MH11)	5S/1min/3min/10min
Daylight Sensor	5Lux/15Lux/50lux/Disable	5Lux/15Lux/50lux/Disable	5lux/15Lux/50Lux/Disable(set by remote control MH11)	5Lux/15Lux/50lux/Disable
Stand-by Period	0S/1min/3min/+∞	0S/1min/3min/+∞	0S/1min/30min/+∞(set by remote control MH11)	0S/1min/3min/+∞
Stand-by DIM Level	20%	20%	10%/30%(set by remote control MH11)	20%
Transmitting Power	1mW Max	1mW Max	1mW Max	1mW Max
Maximum Working current	15mA	15mA	15mA	15mA
Detection Area	≥3m	≥3m	≥3m	≥3m
Mounting Height	3m（6m Max)	3m（6m Max)	3m（6m Max)	3m（6m Max)
Operating Temperature	-20~60℃	-20~60℃	-20~60℃	-20~60℃
IP Rating	IP20	IP20	IP20	IP20

Low-impedance antenna/ Flicker-free/ Ultra-low power consumption 0.1W

MLC18C-NDP2/MLC28C-NDP2

5.8G low impedance ANT · 5.8G low impedance antenna
On/Off function
Dimming function
Movement motion
Light threshold
5 Year Guarantee · 5 years warranty

CE RED



Very low standby power consumption

Ultra-low power consumption 0.1W assists saving energy and reducing carbon emission.

0.1W

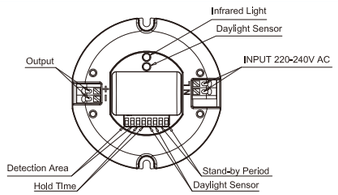
Product features

- Ultra-low power consumption 0.1W assists saving energy and reducing carbon emission.
- Flicker-free, comply with the latest ERP standard.
- Adopts patented low-impedance antenna, make sure bulk orders comply with RED approval, no need a separate debugging during lighting RED certifying.
- Strong anti-interference capability, no false-triggering in metal space. Anti-interference of minor motion signal, such as flies.

Application scenarios

Suitable for ceiling lamp and other lamps installation.

Wiring



Product parameters

	MLC18C-NDP2	MLC28C-NDP2
Operating Voltage	220-240Vac, 50/60Hz	220-240Vac, 50/60Hz
Output	Single output current 24-53Vdc 300mA or 350mA	Single output current 24-42Vdc 450mA, 500mA, 550mA 24-36Vdc 700mA
HF System	5.8 GHz±75MHz	5.8 GHz±75MHz
Transmitting Power	1mW Max	1mW Max
Stand-by Power	≤0.1W	≤0.1W
Detection Area	≥3m	≥3m
Mounting Height	3m（6m Max）	3m（6m Max）
Sensitivity	25%/50%/75%/100%	25%/50%/75%/100%
Hold Time	5S/1min/5min/10min	5S/1min/5min/10min
Daylight Sensor	"daylight threshold: 5Lux / 25Lux / 50Lux / Disable Daylight priority: 5Lux/50lux, 25lux /100Lux , 50Lux/100lux"	
Stand-by Period	0S/1min/10min/+∞	0S/1min/10min/+∞
Stand-by DIM Level	20%	20%
Operating Temperature	-25~50℃	-25~50℃
IP Rating	IP20	IP20

Low-impedance antenna/ Flicker-free/ Low power consumption 0.3W

MLC16C-DP2/MLC25C-DP2

5.8G low impedance ANT · 5.8G low impedance antenna
On/Off function
Dimming function
Movement motion
Light threshold
5 Year Guarantee · 5 years warranty

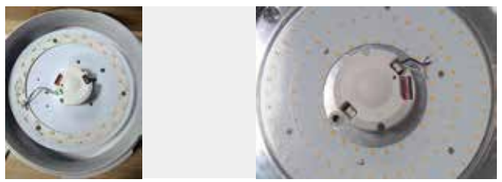
CE RED

Product features

- Low power consumption 0.3W, flicker-free, comply with the latest ERP standard.
- Adopts patented low-impedance antenna, make sure bulk orders comply with RED approval, no need a separate debugging during lighting RED certifying.
- Strong anti-interference capability, no false-triggering in metal space. Anti-interference of minor motion signal, such as flies.

Application scenarios

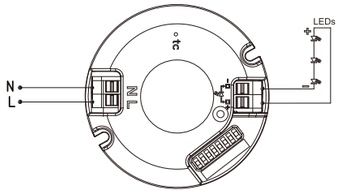
Suitable for ceiling lamp and other lamps installation.



Low-impedance antenna

Low impedance microwave antenna, can effectively resist 5G, WiFi, Bluetooth and other wireless signal interference.

Wiring



Product parameters

	MLC16C-DP2	MLC25C-DP2
Operating Voltage	220-240Vac, 50/60Hz	220-240Vac, 50/60Hz
Output	Single output current 36-52Vdc:200mA, 280mA, 300mA 36-50Vdc:320mA 36-46Vdc:350mA	Single output current 24-42Vdc:450mA, 500mA, 550mA 24-36Vdc:600mA 24-30Vdc:700mA
HF System	5.8 GHz±75MHz	5.8 GHz±75MHz
Transmitting Power	1mW Max	1mW Max
Stand-by Power	≤0.5W	≤0.5W
Detection Area	≥3m	≥3m
Mounting Height	3m（6m Max）	3m（6m Max）
Sensitivity	25%/50%/75%/100%	25%/50%/75%/100%
Hold Time	5S / 1min / 5min / 10min	5S / 1min / 5min / 10min
Daylight Sensor	"daylight threshold: 5Lux / 25Lux / 50Lux / Disable Daylight priority: 5Lux/50lux, 25lux /100Lux , 50Lux/100lux"	
Stand-by Period	0S / 1min / 10min / +∞	0S / 1min / 10min / +∞
Stand-by DIM Level	20%	20%
Operating Temperature	-25~45℃	-25~45℃
IP Rating	IP20	IP20

Low-impedance antenna/RF wireless grouping

MLC18C-PRF R

5.8G low impedance antenna | Wireless networking | On/Off function | Dimming function | Movement motion | Light threshold | 5 years warranty

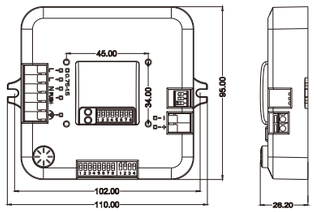
Park

Warehouse

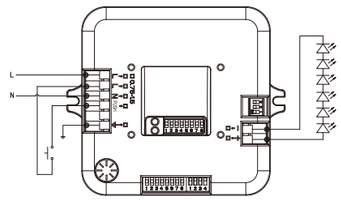
CE RED

Low-impedance antenna

Low impedance microwave antenna, can effectively resist 5G, WiFi, Bluetooth and other wireless signal interference.



Wiring



Product features

- 868MHz RF wireless grouping
- Narrow frequency communication technology to avoid co-channel interference.

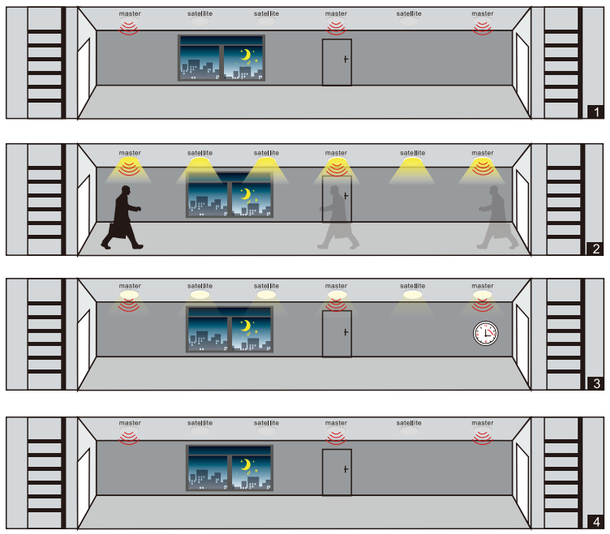
Application scenarios

Suitable for ceiling lamp and other lamps installation.

Product parameters

Operating Voltage	220-240Vac, 50/60Hz
Output	Multi current output 300mA - (16-65.0V) 350mA - (16-60.0V) 450mA - (16-47.5V) 600mA - (16-34.5V) 700mA - (16-30.0V)
HF System	5.8 GHz±75MHz
Transmitting Power	0.2mW Max.
Stand-by Power	≤2W
Detection Area	≥3m
Mounting Height	3m（6m Max）
Sensitivity	25%/50%/75%/100%
Hold Time	5s/30s/90s/3min/20min/30min
Daylight Sensor	daylight threshold: 5Lux / 25Lux / 50Lux / Disable Daylight priority: 5Lux/50lux, 25lux /100Lux , 50Lux/100lux
Stand-by Period	0s/5min/10min/30min/1h/+∞ ---（Dip switch setting）
Stand-by DIM Level	20%
Operating Temperature	-25~50℃
IP Rating	IP20

Master-satellite control



1 When no motion is detected all lamps will switch off.

2 With insufficient ambient light,if motion is detected in any direction by any masterall lamps will switch on at the same time.

3 After hold time,all lamps dim to a low light level if no new motion trigger.

4 After stand-by period all lamps will switch off if no movement is detected in the detection zone by any master.

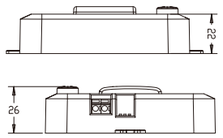
Light control priority function

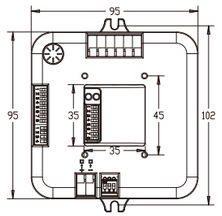
The lamp turns on to a low light level at night.

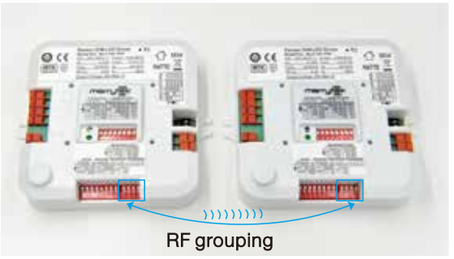
When motion is detectedthe lamp automatically lights up to 100%.

After hold time,the lamp gradually dims to a low light level if no movement is detected.

The lamp turns off after dawn.







Works with multiple sensor heads/ Flick-free/ Low power consumption 0.3W

MLC20C-PS1

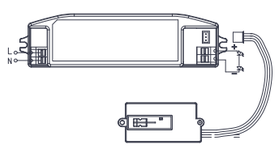
5.8G low impedance antenna | On/Off function | Dimming function | Movement motion | Light threshold | 5 years warranty

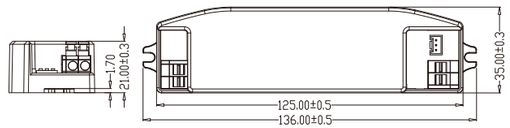
CE RED

MLC20C-PS1-1

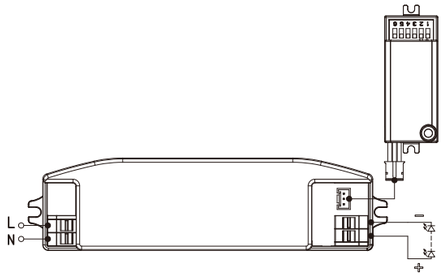
MC087D RC

MC002D 6





Wiring



Application scenarios

Suitable for the installation of Tri-proof lamp/ceiling lamp and other lamps.

Product features

- Low power consumption 0.5W, flicker-free, comply with the latest ERP standard.

Product parameters

Operating Voltage	220-240Vac, 50/60Hz
Output	*Single output current 300mA, 350mA, 380mA, 450mA 28-42VDC*
HF System	50Hz/60Hz
Transmitting Power	1mW Max
Stand-by Power	<0.3W
Detection Area	≥3m
Mounting Height	3m（4m Max）
Sensitivity	50%/100%
Hold Time	5S / 90S / 3min / 10min
Daylight Sensor	15Lux/Disable
Stand-by Period	0S / 30S / 10min / +∞
Stand-by DIM Level	20%
Operating Temperature	-25~50℃
IP Rating	IP20

Works with multiple sensor heads/ Flick-free/ Low power consumption 0.3W

MLC20C-NPS/MLC40C-NPS/MLC60C-NPS

5.8G low impedance antenna | On/Off function | Dimming function | Movement motion | Light threshold | 5 years warranty

CE RED

Park

Warehouse

MLC20C-PS1-1

MC087D RC

MC002D 6

Product features

- Low power consumption 0.3W, flicker-free, comply with the latest ERP standard.

Application scenarios

Suitable for ceiling lamp and other lamps installation.

Product parameters

Operating Voltage	220-240Vac, 50/60Hz
Output	*Multi current output 200mA\250mA\300mA\350mA 20W: 30-54Vdc 40W:65-120Vdc 60W: 90-175Vdc*
HF System	5.8 GHz±75MHz
Transmitting Power	1mW Max
Stand-by Power	≤0.3W
Detection Area	≥3m
Mounting Height	3m（4m Max）
Sensitivity	50%/100%
Hold Time	5S / 90S / 3min / 10min
Daylight Sensor	15Lux/Disable
Stand-by Period	0S / 30S / 10min / +∞
Stand-by DIM Level	20%
Operating Temperature	-25~50℃
IP Rating	IP20

120-277Vac to 12Vdc power adapter/
Works with multiple sensor heads

MC103S

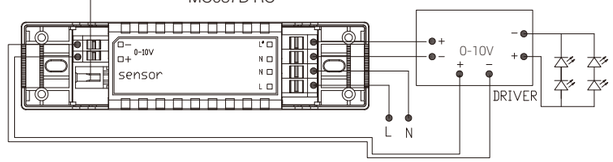
Park

Warehouse

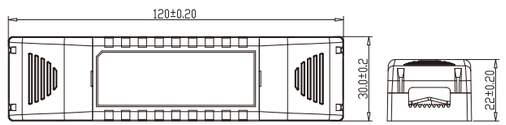
MC088D RC

MC091D RC

MC087D RC



Size chart



Product features

- 120-277Vac to 12Vdc power adapter, works with Merrytek multiple sensor heads.

Application scenarios

Suitable for the installation of Tri-proof lamp, ceiling lamp, Highbay light and other lamps.

Product parameters

Operating Voltage	120-277VAC
Output	*Single output current 300mA, 350mA, 380mA, 450mA 28-42VDC*
HF System	50Hz/60Hz
Transmitting Power	N/A
Stand-by Power	<1W
Detection Area	N/A
Mounting Height	N/A
Sensitivity	50%/100%
Hold Time	N/A
Daylight Sensor	N/A
Stand-by Period	0S / 30S / 10min / +∞
Stand-by DIM Level	N/A
Operating Temperature	-25~60℃
IP Rating	IP20

European/American universal version

MC090S U 41

MC083V RC MC601V 42

MC606V 43

MC605V/D 44

MC613V D RC 45

MC103S+ MC097D 46

MC079D RC2 A MC079D RC2 B 47

MC079D RC Z MC079D RC Z Zi 48

MC079D RC3 49

MC628S RC MC628D RC 50

MC054V RC2 MC054V RC3 51

MC054V RC4 52

MC079D RC DI MC079D RC DI L(裸板) 53

MC079D RC IR 55

MC628D B1 56

120-277Vac/
Low-impedance antenna
MC090S U

5.8G low impedance antenna | On/Off function | Dimming function | Movement motion | Light threshold | 5 years warranty

Park

Stairwell

Corridor

Low-impedance antenna

Low impedance microwave antenna, can effectively resist 5G, WiFi, Bluetooth and other wireless signal interference.

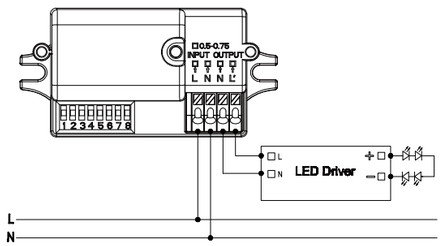
Product features

- Adopts patented low-impedance antenna, make sure bulk orders comply with RED and FCC approval, no need a separate debugging during lighting RED certifying.
- Strong anti-interference capability, no false-triggering in metal space. Anti-interference of minor motion signal, such as flies.
- Infrared light filtering technology, no deviation for daylight detecting in sunny, cloudy or rainy day.

Application scenarios

Suitable for wall lamp and other lamps installation.

Wiring



Product parameters

Operating Voltage	220-240Vac, 50/60Hz 120/277Vac, 50/60Hz		
Rated Load	800W（Resistive） 400W（Inductive） 2.8A E-ballast@120Vac 2.5A E-ballast@277Vac		
HF System	5.8 GHz±75MHz		
Hold Time	5S/30S/1min/3min/5min/10min/20min/30min		
Daylight Sensor	2Lux/10Lux/25Lux/50Lux/Disable		
Sensitivity	100%/75%/50%/25%		
Stand-by Period	N/A		
Stand-by DIM Level	N/A		
Stand-by Power	≤0.5W	Transmitting Power	0.5mW Max.
Detection Area	≥3m	Operating Temperature	-25℃~60℃
Typical Mounting Height	3m（6m Max）	IP Rating	IP20

120-277Vac/
High gain antenna
MC601V/MC083V RC

High gain antenna | On/Off function | Dimming function | Movement motion | Light threshold | 5 years warranty

Warehouse

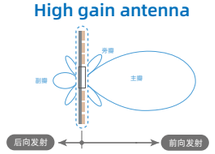
Courtyard

MC601V

MC083V RC

MH10

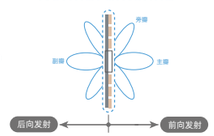
High gain antenna



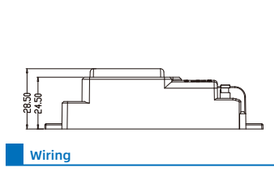
Adopt high-gain microwave antenna to solve the false triggering of microwave sensor installed in high mounting location, such as false triggering and incorrect actions.

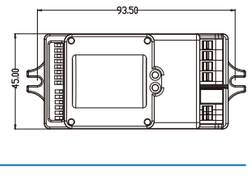
VS

Normal antenna



Large side lobe, poor environmental adaptability, installation of metal roof warehouse and other environments easy to trigger (unattended light).

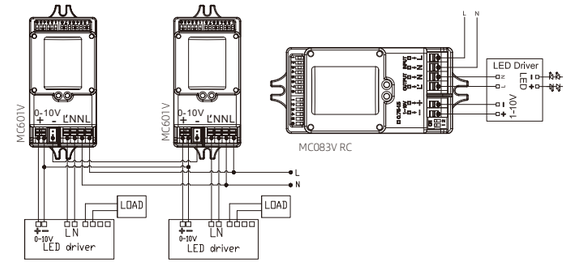




Product features

- Uses patented high gain antenna to increase 2-3 times detecting signal than normal microwave antenna, reliable motion detecting, suitable to high mounting.
- Working temperature is -35~75℃, detecting range is stable and with good consistency, not affected by temperature change.
- Optional high/low sensitivity mode, can work in metal installations without false triggering.

Wiring



Product parameters

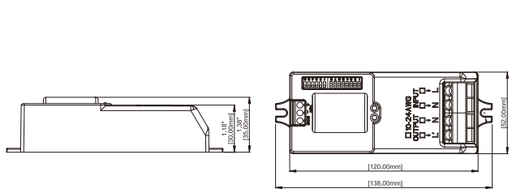
Operating Voltage	108-305Vac, 50/60Hz 120/277Vac, 50/60Hz	220-240Vac, 50/60Hz 120/277Vac, 50/60Hz
Rated Load	1200W（Resistive） 800W（Inductive）* 400W ballast@120Vac 1000W ballast@277Vac	*1200W（Resistive） 800W（Inductive）* 2A E-ballast
HF System	5.8 GHz±75MHz	5.8 GHz±75MHz
Transmitting Power	1mW Max.	1mW Max.
Power Consumption	≤1W	≤1W
Detection Area	≥3m	≥3m
Typical Mounting Height	9m（12m Max）	9m（12m Max）
Sensitivity	100%/75%/50%/10%	100%/75%/50%/10%
Hold Time	5S/30S/90S/3min/20min/+∞	5S/30S/1min/3min/20min/30min
Daylight Sensor	2Lux/5Lux/10Lux/25Lux/50Lux/100Lux/Disable	5Lux/15Lux/30Lux/50Lux/100Lux/150Lux/Disable
Stand-by Period	0S/5S/5min/10min/30min/1h/+∞	*0S/5S/5min/10min/30min/60min/+∞ 0s/10s/1min/3min/5min/10min/30min/+∞ (Via Remote setting) 0s/10S/1min/3min/5min/10min/30min/+∞(Via Remote setting）*
Stand-by DIM Level	10%/20%/30%/50%	10%/20%/30%/50%(Set by remote control only)
Operating Temperature	-30℃ ~ 70℃	-25℃~60℃
IP Rating	IP20	IP20

120-347Vac/ Classical
MC606V

On/Off function | Dimming function | Movement motion | Light threshold | 5 years warranty

Warehouse

Courtyard

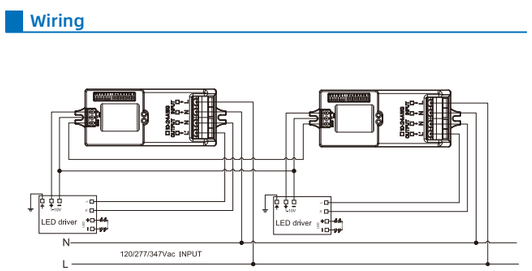


Product features

- 120-347Vac working voltage, available for North American market.
- Mounting height is 12m Max.

Application scenarios

Suitable for wall lamp/Highbay light and other lamp installation.



Product parameters

Operating Voltage	120/277/347Vac, 50/60Hz		
Rated Load	120V, 50/60Hz, 3.6A, ballast;277V, 50/60Hz, 3.4A, ballast; 347V, 50/60Hz, 3.3A, ballast;		
HF System	5.8 GHz±75MHz		
Hold Time	5S/30S/90S/3min/20min/+∞		
Daylight Sensor	2Lux/5Lux/10Lux/25Lux/50lux/100Lux/Disable		
Sensitivity	25%/50%/75%/100%		
Stand-by Period	0S/5S/5min/10min/30min/1H/+∞		
Stand-by DIM Level	10%/20%/30%/50%		
Stand-by Power	≤1W	Transmitting Power	0.5mW Max.
Detection Area	≥3m	Operating Temperature	-35℃ ~ 70℃
Typical Mounting Height	9m（12m Max）	IP Rating	IP20

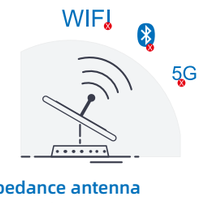
120-277Vac/ Low-impedance antenna Detachable sensor
MC605V D

5.8G low impedance antenna | On/Off function | Dimming function | Movement motion | Light threshold | 5 years warranty

Park

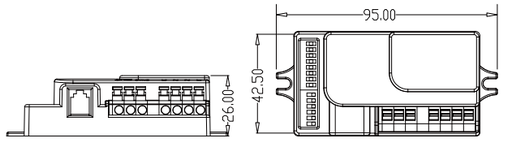
Warehouse

Workshop



Low-impedance antenna

Low impedance microwave antenna, can effectively resist 5G, WiFi, Bluetooth and other wireless signal interference.

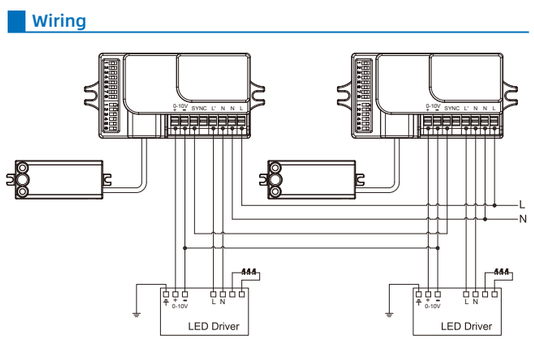


Product features

- Adopts patented low-impedance antenna, make sure bulk orders comply with RED and FCC approval, no need a separate debug-ging during lighting RED certifying.
- Strong anti-interference capability, no false-triggering in metal space. Anti-interference of minor motion signal, such as flies.
- Set by DIP switch and remote control, suitable for assembly with varied luminaires.

Application scenarios

Suitable for the installation of three - proof lamps.



Product parameters

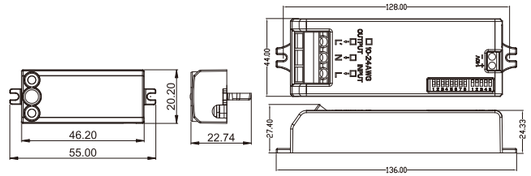
Operating Voltage	110-308Vac, 50/60Hz 120/277Vac 50Hz/60Hz		
Rated Load	"1000W（Resistive） 800W（Inductive）" @120V AC 3.6A Ballast @277V AC 3.4A Ballast		
HF System	5.8 GHz±75MHz		
Hold Time	5S/30S/90S/3min/20min/+∞		
Daylight Sensor	5Lux/15Lux/30Lux/50Lux/100Lux/150Lux/Disable		
Sensitivity	100%/75%/50%/25%		
Stand-by Period	0s/5S/5min/10min/30min/1h/+∞		
Stand-by DIM Level	10%/20%/30%/50%		
Stand-by Power	≤1W	Transmitting Power	0.5mW Max.
Detection Area	≥3m	Operating Temperature	-35℃ ~ 70℃
Typical Mounting Height	3m（6m Max）	IP Rating	IP20

120-347Vac/ Low-impedance antenna/ Detachable sensor

MC613V D RC

5.8G low impedance antenna | On/Off function | Dimming function | Movement motion | Light threshold | 5 years warranty

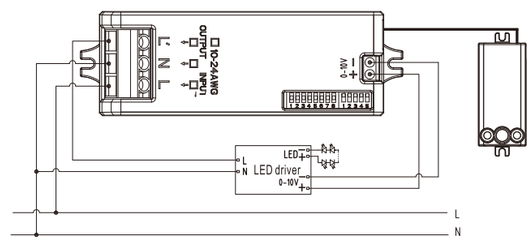
Conference room



Low-impedance antenna

Low impedance microwave antenna, can effectively resist 5G, WiFi, Bluetooth and other wireless signal interference.

Wiring



Product features

- Adopts patented low-impedance antenna, make sure bulk orders comply with RED and FCC approval, no need a separate debug-ging during lighting RED certifying.
- Strong anti-interference capability, no false-triggering in metal space. Anti-interference of minor motion signal, such as flies.

Product parameters

Operating Voltage	120/277/347V AC 50/60Hz
Rated Load	"120V, 50/60Hz, 3.6A, ballast;277V, 50/60Hz, 3.4A, ballast; 347V, 50/60Hz, 3.3A, ballast;"
HF System	5.8 GHz±75MHz
Hold Time	"8S/30S/1min/5min/10min/15min/30min (set by DIP switch) 5S/30S/1min/3min/5min/10min/20min/30min （set by remote control MH12）"
Daylight Sensor	5Lux/15Lux/30Lux/50Lux/100Lux/150Lux/+∞
Sensitivity	100%/75%/50%/25%
Stand-by Period	"0s/1min/3min/5min/10min/30min/+∞ (set by DIP switch) 0S/10S/1min/3min/5min/10min/30min/+∞ （set by remote control MH12）"
Stand-by DIM Level	"10%/20%/30%/40% (set by DIP switch) 10%/20%/30%/50% （set by remote control MH12）"
Stand-by Power	<1W
Transmitting Power	1mW Max.
Detection Area	≥3m
Operating Temperature	-35℃ ~ 70℃
Typical Mounting Height	3m（6m Max）
IP Rating	IP20

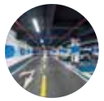
Application scenarios

Suitable for installation of Tri-proof lamp /troffer and other lamps.

120-277Vac/ Low-impedance antenna/ Cost-effective

MC103S+ MC097D

5.8G low impedance antenna | On/Off function | Dimming function | Movement motion | Light threshold | 5 years warranty



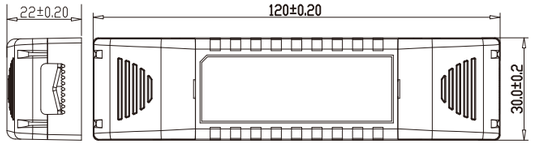
Park

Warehouse

Workshop

MC097D

MC103S



Product features

- Adopts patented low-impedance antenna, make sure bulk orders comply with RED and FCC approval, no need a separate debug-ging during lighting RED certifying.
- Strong anti-interference capability, no false-triggering in metal space. Anti-interference of minor motion signal, such as flies.

Application scenarios

Suitable for installation of Tri-proof lamp /troffer and other lamps.

Wiring

Product parameters MC103S

Operating Voltage	120/277Vac, 50/60Hz
Rated Load	2A E-ballast
HF System	5.8 GHz±75MHz
Hold Time	"Set by remote control MH10 or MH12 "
Daylight Sensor	"Set by remote control MH10 or MH12 "
Sensitivity	"Set by remote control MH10 or MH12 "
Stand-by Period	"Set by remote control MH10 or MH12 "
Stand-by DIM Level	"Set by remote control MH10 or MH12 "
Stand-by Power	≤1W
Transmitting Power	1mW Max.
Detection Area	≥3m
Operating Temperature	-25℃~+60℃
Typical Mounting Height	/
IP Rating	IP20

High gain antenna/ High mounting
IP65 water proof
MC079D RC2 A/MC079D RC2 B

High gain antenna | On/Off function | Dimming function | Movement motion | Light threshold | 5 years warranty

Park

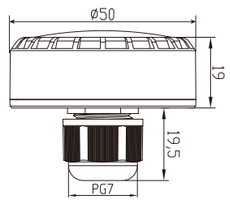
MC079D RC2 A

MC079D RC2 B

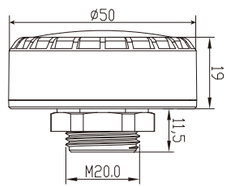
HG antenna VS **Plain plane antenna**

Adopt high-gain microwave antenna to solve the false triggering of microwave sensor installed in high mounting location, such as false triggering and incorrect actions.

Large side lobe, poor environmental adaptability, installation of metal roof warehouse and other environments easy to trigger (unattended light).



MC079D RC2 A

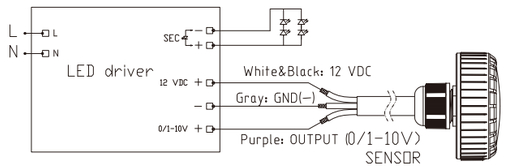


MC079D RC2 B

Product features

- Uses patented high gain antenna to increase 2-3 times detecting signal than normal microwave antenna, reliable motion detecting, suitable to high mounting.
- Optional high/low sensitivity mode, can work in metal installations without false triggering.
- Working temperature is -35~70℃, detecting range is stable and with good consistency, not affected by temperature change.

Wiring



Product parameters

	MC079D RC2 A	MC079D RC2 B
Operating Voltage	12Vdc ± 1Vdc	12Vdc ± 1Vdc
Output	0-10V DC	0-10V DC
HF System	5.8 GHz ±75 MHz，ISM波段	5.8 GHz ±75 MHz，ISM波段
Transmitting Power	1mW Max	1mW Max.
Working current	25mA	25mA
Detection Area	≥3m	≥3m
Mounting Height	9m（15m Max)	9m（15m Max)
Sensitivity	25%/50%/75%/100%（set by MH10 or MH12）	25%/50%/75%/100%（set by MH10 or MH12）
Hold Time	5s/30s/1min/3min/5min/10min/20min/30min、（set by MH10 or MH12）	5s/30s/1min/3min/5min/10min/20min/30min（set by MH10 or MH12）
Daylight Sensor	daylight threshold: 5lux/15lux/30lux/50lux/100lux/150lux/Disable Daylight priority: (5/15/30/50lux)/150lux,100lux/200lux, 150lux/300lux（set by MH10 or MH12）*	*daylight threshold: 5lux/15lux/30lux/50lux/100lux/150lux/Disable Daylight priority: (5/15/30/50lux)/150lux,100lux/200lux, 150lux/300lux（set by MH10 or MH12）*
Stand-by Period	0s/10s/1min/3min/5min/10min/30min/+∞（set by MH10 or MH12）	0s/10s/1min/3min/5min/10min/30min/+∞（set by MH10 or MH12）
Stand-by DIM Level	10%/20%/30%/50%（set by MH10 or MH12）	10%/20%/30%/50%（set by MH10 or MH12）
Operating Temperature	-35℃~70℃	-35℃~70℃
IP Rating	IP65	IP20

High gain antenna/ High mounting/
IP65 water proof/Zhaga book 18 interface
MC079D RC Z/MC079D RC Z Zi

High gain antenna | On/Off function | Dimming function | Movement motion | Light threshold | 5 years warranty

Park

Warehouse

Workshop

Powered by tuya

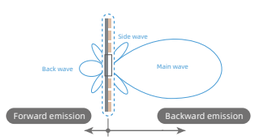
Zhaga book

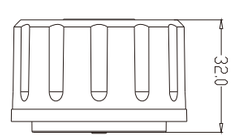
MC079D RC Z

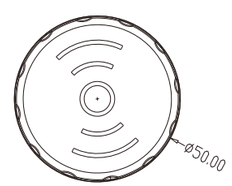
MC079D RC Z Zi

HG antenna

Adopt high-gain microwave antenna to solve the false triggering of microwave sensor installed in high mounting location, such as false triggering and incorrect actions.



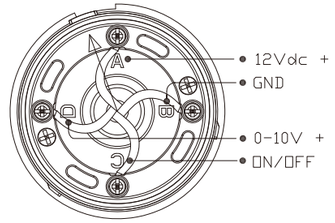




Product features

- Uses patented high gain antenna to increase 2-3 times detecting signal than normal microwave antenna, reliable motion detecting, suitable to high mounting.
- Optional high/low sensitivity mode, can work in metal installations without false triggering.
- Working temperature is -35~70℃, detecting range is stable and with good consistency, not affected by temperature change.

Wiring



Product parameters

	MC079D RC Z	MC079D RC Z Zi
Operating Voltage	12Vdc ± 1Vdc	12Vdc ± 1Vdc
Output	0-10V DC	0-10V DC
HF System	5.8 GHz	5.8 GHz
Transmitting Power	1mW Max	3mW
Working current	25mA	25mA
Detection Area	≥3m	≥3m
Mounting Height	9m（15m Max)	9m（12m Max)
Sensitivity	25%/50%/75%/100%（set by MH10 or MH12）	100%/75%/50%/25%（set by APP）
Hold Time	5s/30s/1min/3min/5min/10min/20min/30min（set by MH10 or MH12）	5S/30S/1min/3min/5min/10min/20min/30min（set by APP）
Daylight Sensor	*daylight threshold: 5lux/15lux/30lux/50lux/100lux/150lux/Disable Daylight priority: (5/15/30/50lux)/150lux,100lux/200lux, 150lux/300lux（set by MH10 or MH12）*	5lux/15Lux/30Lux/50Lux/100lux/150lux/Disable（set by APP）
Stand-by Period	0s/10s/1min/3min/5min/10min/30min/+∞（set by MH10 or MH12）	0s/10S/1min/3min/5min/10min/30min/+∞（set by APP）
Stand-by DIM Level	10%/20%/30%/50%（set by MH10 or MH12）	10%/20%/30%/50%（set by APP）
Operating Temperature	-35℃~70℃	-25℃~60℃
IP Rating	IP65	IP20

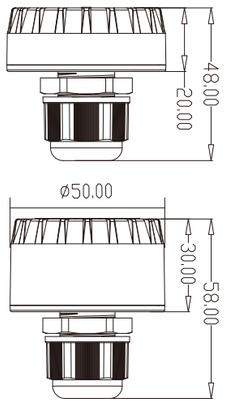
High gain antenna/ High mounting/
IP65 water proof/ Pluggable

MC079D RC3

High gain antenna | On/Off function | Dimming function | Movement motion | Light threshold | 5 years warranty

Workshop

Warehouse



Movement motion | Daylight harvesting | Wireless networking

Universal waterproof cover

Microwave motion sensor

Daylight switch

Wireless networking

.....

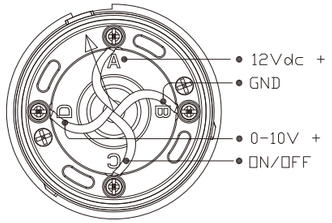
Product features

- Uses patented high gain antenna to increase 2-3 times detecting signal than normal microwave antenna, reliable motion detecting, suitable to high mounting.
- Optional high/low sensitivity mode, can work in metal installations without false triggering.
- Working temperature is -35~70℃, detecting range is stable and with good consistency, not affected by temperature change.

Application scenarios

Suitable for installation of Highbay light.

Wiring



Product parameters

Operating Voltage	12Vdc ± 1Vdc
Output	0-10VDC
HF System	5.8 GHz
Transmitting Power	1mW Max.
Working current	25mA
Detection Area	≥3m
Mounting Height	9m（15m Max）
Sensitivity	25%/50%/75%/100%（set by MH10 or MH12）
Hold Time	5s/30s/1min/3min/5min/10min/20min/30min（set by MH10 or MH12）
Daylight Sensor	"daylight threshold: 5lux/15lux/30lux/50lux/100lux/150lux/Disable Daylight priority: (5/15/30/50lux)/150lux,100lux/200lux, 150lux/300lux （set by MH10 or MH12）"
Stand-by Period	0s/10s/1min/3min/5min/10min/30min/+∞ （set by MH10 or MH12）
Stand-by DIM Level	10%/20%/30%/50%（set by MH10 or MH12）
Operating Temperature	-35℃~70℃
IP Rating	IP65

High gain antenna/ High mounting/
IP65 water proof/ Side mounting

MC628S RC/MC628D RC

High gain antenna | On/Off function | Dimming function | Movement motion | Light threshold | 5 years warranty

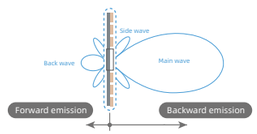
Park

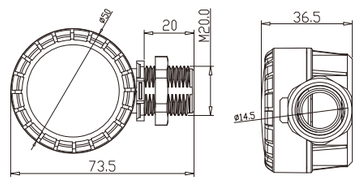
Warehouse

MC628S RC

HG antenna

Adopt high-gain microwave antenna to solve the false triggering of microwave sensor installed in high mounting location, such as false triggering and incorrect actions.

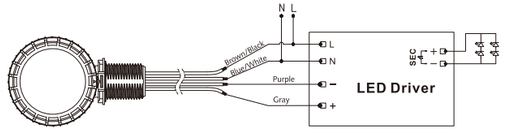




Product features

- Uses patented high gain antenna to increase 2-3 times detecting signal than normal microwave antenna, reliable motion detecting, suitable to high mounting.
- Optional high/low sensitivity mode, can work in metal installations without false triggering.
- Working temperature is -35~55℃, detecting range is stable and with good consistency, not affected by temperature change.

Wiring



Product parameters

	MC628S RC	MC628D RC
Operating Voltage	120-277Vac 50/60Hz	12Vdc±1V
Output	On-off function	0-10Voutput, 50mA Max.
HF System	5.8 GHz±75MHz	5.8 GHz±75MHz
Transmitting Power	0.5mW Max.	1mW Max.
Maximum Working current	25mA	25mA
Detection Area	≥3m	≥3m
Mounting Height	6m（12m Max）	6m（12m Max）
Sensitivity	25%/50%/75%/100%（set by MH10 or MH12）	25%/50%/75%/100%（set by MH10 or MH12）
Hold Time	5s/30s/1min/3min/5min/10min/20min/30min（set by MH10 or MH12）	5s/30s/1min/3min/5min/10min/20min/30min（set by MH10 or MH12）
Daylight Sensor	N/A	"daylight threshold: 5lux/15lux/30lux/50lux/100lux/150lux/Disable Daylight priority: (5/15/30/50lux)/150lux,100lux/200lux, 150lux/300lux （set by MH10 or MH12）"
Stand-by Period	N/A	0s/10s/1min/3min/5min/10min/30min/+∞（set by MH10 or MH12）
Stand-by DIM Level	10%/20%/30%/50%（set by MH10 or MH12）	10%/20%/30%/50%（set by MH10 or MH12）
Operating Temperature	-35℃~55℃	-35℃~70℃
IP Rating	IP65	IP65

High gain antenna/ High mounting/ IP65 water proof/ AC version

MC054V RC2，MC054V RC3

High gain antenna　On/Off function　Dimming function　Movement motion　Light threshold　5 years warranty

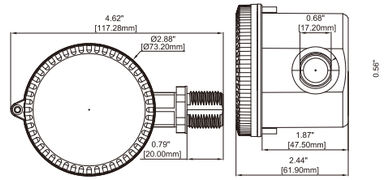
Park

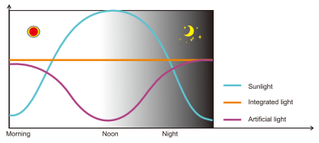
Warehouse

Courtyard

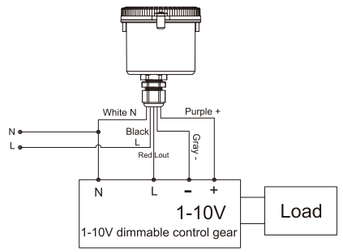
MC054V RC2

MC054V RC3





Wiring



MC054V RC2/MC054V RC3

Product features

- Uses patented high gain antenna to increase 2-3 times detecting signal than normal microwave antenna, reliable motion detecting, suitable to high mounting.
- Optional high/low sensitivity mode, can work in metal installations without false triggering.
- Working temperature is -35~55℃, detecting range is stable and with good consistency, not affected by temperature change.

Application scenarios

Suitable for installation of Highbay light.

Product parameters

Operating Voltage	108-305Vac, 60Hz　120/277Vac, 50/ 60Hz		
Rated Load	1200W（Resistive） 800W（Inductive）" 120Vac,: 4A; 277Vac,: 3A		
HF System	5.8 GHz±75MHz		
Hold Time	5s/30s/1min/3min/5min/10min/20min/30min （set by MH10 or MH12）		
Daylight Sensor	5lux/15lux/30lux/50lux/100lux/150lux/Disable （set by MH10 or MH12）		
Sensitivity	25%/50%/75%/100%（set by MH10 or MH12）		
Stand-by Period	0s/10s/1min/3min/5min/10min/30min/+∞ （set by MH10 or MH12）		
Stand-by DIM Level	10%/20%/30%/50%（set by MH10 or MH12）		
Stand-by Power	<1W	Transmitting Power	0.5mW Max.
Detection Area	≥3m	Operating Temperature	-35℃ ~ 55℃
Typical Mounting Height	9m（15m Max）	IP65	

Daylight harvesting/ High gain antenna/ High mounting/ IP65 water proof/ AC version

MC054V RC4

High gain antenna　On/Off function　Dimming function　Movement motion　Light threshold　5 years warranty

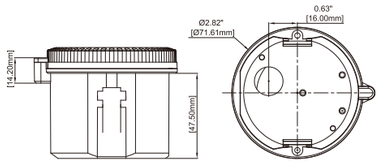
Park

Warehouse

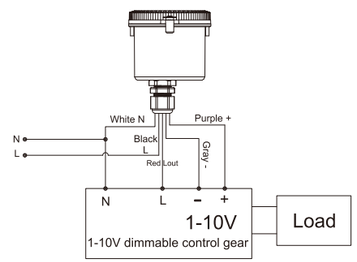
Workshop

Optically controlled priority

Daylight harvesting



Wiring



Product features

- Multifunction version, daylight harvesting and motion sensor for various needs.
- Uses patented high gain antenna to increase 2-3 times detecting signal than normal microwave antenna, reliable motion detecting, suitable to high mounting.
- Optional high/low sensitivity mode, can work in metal installations without false triggering.
- Working temperature is -35~55℃, detecting range is stable and with good consistency, not affected by temperature change.

Application scenarios

Suitable for installation of Highbay light.

Product parameters

Operating Voltage	120-277Vac　50/60Hz　120/277Vac, 50/ 60Hz		
Rated Load	"1200W（Resistive） 800W（Inductive）" 120Vac,: 4A; 277Vac,: 3A		
HF System	5.8 GHz±75MHz		
Hold Time	5s/30s/1min/3min/5min/10min/20min/30min （set by MH10 or MH12）		
Daylight Sensor	5lux/15lux/30lux/50lux/100lux/150lux/Disable （set by MH10 or MH12）		
Sensitivity	25%/50%/75%/100%（set by MH10 or MH12）		
Stand-by Period	0s/10s/1min/3min/5min/10min/30min/+∞（set by MH10 or MH12）		
Stand-by DIM Level	10%/20%/30%/50%（set by MH10 or MH12）		
Stand-by Power	<1W	Transmitting Power	0.5mW Max.
Detection Area	≥3m	Operating Temperature	-35℃ ~ 55℃
Typical Mounting Height	9m（15m Max）	IP Rating	IP65

Bend antenna/ High mounting/ IP 65 /Cost-effective

MC079D RC DI/MC079D RC DI L(Bare plate)

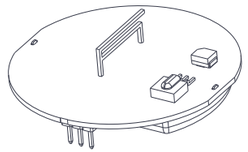
On/Off function | Dimming function | Movement motion | Light threshold | 5 years warranty

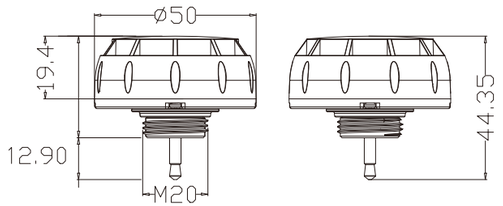
Park

Warehouse

Courtyard

MC079D RC DI

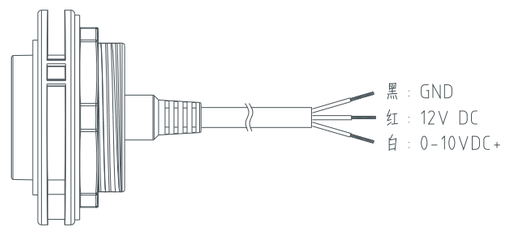

MC079D RC DI L(Bare plate)



Product features

- Uses patented high gain antenna to increase 2-3 times detecting signal than normal microwave antenna, reliable motion detecting, suitable to high mounting.
- Patented bend antenna, low side lobe, solve the pain point of false triggering when microwave sensors install in metal space, such as warehouse.
- Working temperature is -25~70℃, detecting range is stable and with good consistency, not affected by temperature change.

Wiring



Product parameters

	MC079D RC DI	MC079D RC DI L（Bare plate）
Operating Voltage	12Vdc ± 1Vdc	12Vdc ± 1Vdc
Output	0-10V DC	0-10V DC
HF System	5.8 GHz	5.8 GHz
Transmitting Power	3mW MAX	3mW MAX
Working current	25mA	25mA
Detection Area	≥3m	≥3m
Mounting Height	10m（12m Max)	10m（12m Max)
Sensitivity	25%/50%/75%/100%（set by MH10 or MH12）	25%/50%/75%/100%（set by MH10 or MH12）
Hold Time	5s/30s/1min/3min/5min/10min/20min/30min（set by MH10 or MH12）	5s/30s/1min/3min/5min/10min/20min/30min（set by MH10 or MH12）
Daylight Sensor	5lux/15lux/30lux/50lux/100lux/150lux/Disable（set by MH10 or MH12）	5lux/15lux/30lux/50lux/100lux/150lux/Disable（set by MH10 or MH12）
Stand-by Period	0s/10s/1min/3min/5min/10min/30min/+∞（set by MH10 or MH12）	0s/10s/1min/3min/5min/10min/30min/+∞（set by MH10 or MH12）
Stand-by DIM Level	10%/20%/30%/50%（set by MH10 or MH12）	10%/20%/30%/50%（set by MH10 or MH12）
Operating Temperature	-25℃ ~ 70℃	-25℃ ~ 70℃
IP Rating	IP65	IP65

PIR sensor/ IP65

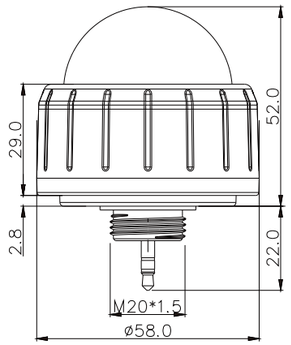
MC079D RC IR

On/Off function | Dimming function | Movement motion | Light threshold | 3 years warranty

Park

Warehouse

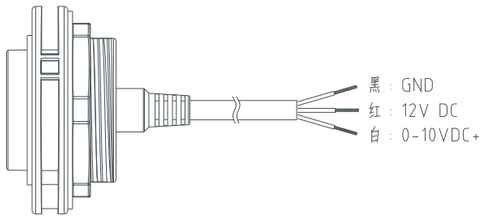
Courtyard



Product features

- PIR sensor, designed for 12m Max. mounting height.

Wiring



Product parameters

Operating Voltage	12Vdc ± 1Vdc
Output	0-10VDC
Detection Area	3-6m
Mounting Height	9m（12m Max）
Sensitivity	N/A
Hold Time	5s/30s/1min/3min/5min/10min/20min/30min（set by MH10 or MH12）
Daylight Sensor	5lux/15lux/30lux/50lux/100lux/150lux/Disable（set by MH10 or MH12）
Stand-by Period	0s/10s/1min/3min/5min/10min/30min/+∞（set by MH10 or MH12）
Stand-by DIM Level	10%/20%/30%/50%（set by MH10 or MH12）
Operating Temperature	0~35℃
IP Rating	IP65

Application scenarios

Suitable for installation of Highbay light.

BLE to 0-10V power adapter/ IP65 / Side mounting

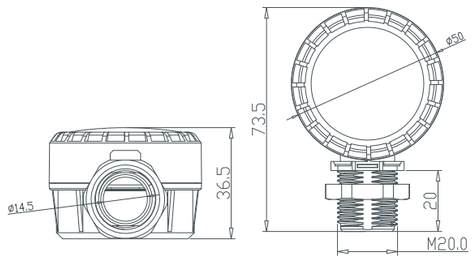
MC628D B1

Wireless networking | 5 years warranty

Park

Warehouse

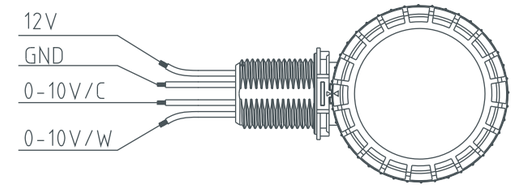
Workshop



Product features

- "Works with Tuya smart APP and Tuya SaaS platform.
  Bluetooth mesh grouping."

Wiring



Product parameters

Operating Voltage	12Vdc ± 1Vdc		
Rated Load	0-10Voutput, 50mA Max.		
HF System	2.4GHz Tuya BLE		
Hold Time	/		
Daylight Sensor	/		
Sensitivity	/		
Stand-by Period	/		
Stand-by DIM Level	/		
Stand-by Power	<0.3W	Transmitting range	20m indoor
Detection Area	/	Operating Temperature	-35℃...+70℃
Typical Mounting Height	/	IP Rating	IP65

Application scenarios

Suitable for installation of Highbay light.

5.8G microwave module

MSP12-5GH 59

MIC08-5GH
MIC08-5GL 60

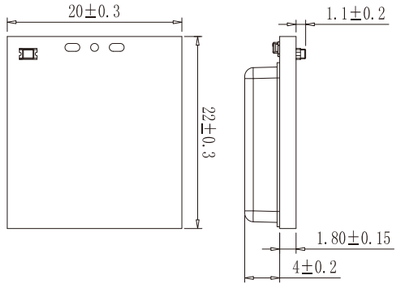
MSP08-5GH RC 61

MIC01-5GH01
MIC06-5GH RC1 62

5.8G Module/ Low-impedance

MSP12-5GH

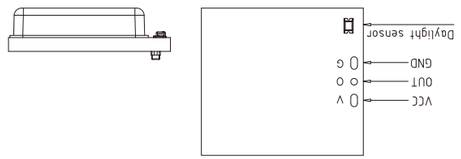
5.8G low impedance antenna | On/Off function | Movement motion | Light threshold | 5 years warranty



Low-impedance antenna

Low impedance microwave antenna, can effectively resist 5G, WiFi, Bluetooth and other wireless signal interference.

Wiring



Product features

- Adopts patented low-impedance antenna, make sure bulk orders comply with RED and FCC approval, no need a separate debugging during lighting RED certifying.

Application scenarios

Suitable for bulb/tube/ceiling lamp/floodlight/panel lamp and other lamp installation.

Product parameters

all parameters can be customized

Operating Voltage	5-12VDC
Output	3.3V hi-low signal 5V hi-low signal
HF System	5.8 GHz
Transmitting Power	1mW Max
Maximum Working current	11±1mA
Detection Area	≥4m
Mounting Height	3m (4m Max)
Sensitivity	fixed
Hold Time	2S/30S
Daylight Sensor	30Lux
Stand-by Period	N/A
Stand-by DIM Level	N/A
Operating Temperature	-25~85℃
IP Rating	IP00

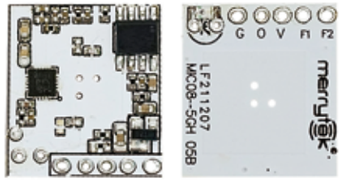
5.8G Module/ Low-impedance

MIC08-5GH,MIC08-5GL

5.8G low impedance antenna | On/Off function | Movement motion | Light threshold | 5 years warranty

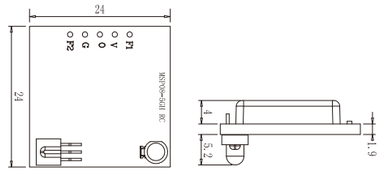
Very low standby power consumption

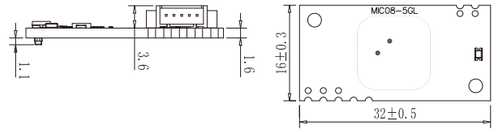
Ultra-low power consumption 0.005W assists saving energy and reducing carbon emission.



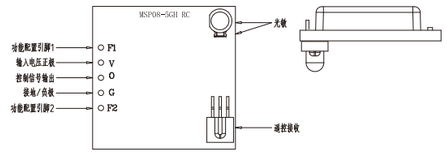
MIC08-5GH

MIC08-5GL

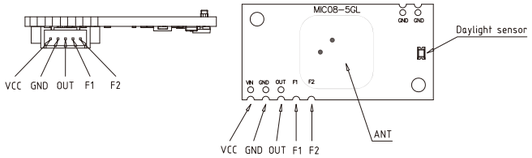




Wiring



Wiring

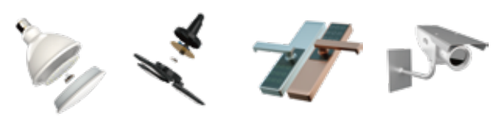


Product features

- Integrated Circuit solution, ultra-low power consumption(40uA, 0.005W)

Application scenarios

Suitable for bulb/tube/ceiling lamp/floodlight/panel lamp/night lamp/door lock/camera and other products application .



Product parameters

all parameters can be customized

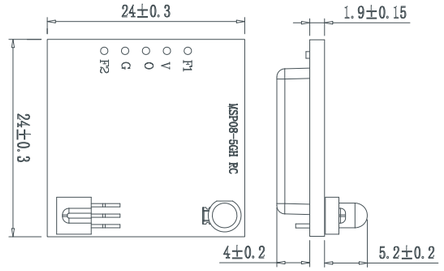
	MIC08-5GH	MIC08-5GL
Operating Voltage	5-12VDC	2.7-4.8VDC
Output	3.3V hi-low signal	3.3V hi-low signal
HF System	5.8 GHz	5.8 GHz
Transmitting Power	1mW Max	1mW Max
Maximum Working current	10±3mA	38±5uA
Detection Area	≥3m	≥3m
Mounting Height	3m (4m Max)	1m (2m Max wall mounting)
Sensitivity	fixed	fixed
Hold Time	30S	30S
Daylight Sensor	30Lux	10Lux
Stand-by Period	N/A	N/A
Stand-by DIM Level	N/A	N/A
Operating Temperature	-25~85℃	-25~85℃
IP Rating	IP00	IP00

5.8G Module/ Low-impedance/ Remote control/ Wide detection range

MSP08-5GH RC

5.8G low impedance antenna | On/Off function | Dimming function | Movement motion | Light threshold | 5 years warranty

CE RED



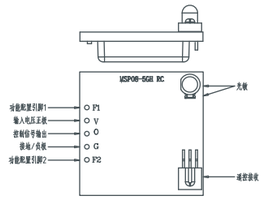
Product features

- Wide detection area, 7-8m in radius.

Application scenarios

Suitable for lamp tube/ceiling lamp and other lamps application.

Wiring



Product parameters

all parameters can be customized

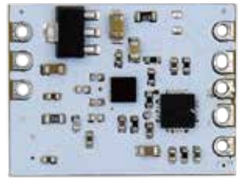
Operating Voltage	5-12VDC
Output	3.3V hi-low signal 5V hi-low signal
HF System	5.8 GHz
Transmitting Power	1mW Max
Maximum Working current	14mA
Detection Area	≥7.5m
Mounting Height	4.5m (4m Max)
Sensitivity	100%/75%/50%/25%(set by remote control MH14)
Hold Time	5S/1min/5min/10min(set by remote control MH14)
Daylight Sensor	5lux/50Lux/Disable(set by remote control MH14)
Stand-by Period	0s/1min/10min/+∞(set by remote control MH14)
Stand-by DIM Level	10%,30%(set by remote control MH14)
Operating Temperature	-25~85℃
IP Rating	IP00

5.8G Module/ Low-impedance/ Remote control/

MIC01-5GH01,MIC06-5GH RC1

5.8G low impedance antenna | On/Off function | Dimming function | Movement motion | Light threshold | 5 years warranty

CE RED



MIC01-5GH01

MIC06-5GH RC1

MIC06-5GH RC1

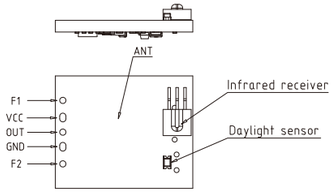
Product features

- Integrated Circuit solution, high stability and strong expansion capability

Application scenarios

Suitable for bulb/tube/ceiling lamp/floodlight/panel lamp and other lamp application.

Wiring



Product parameters

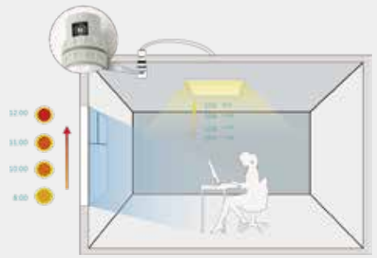
all parameters can be customized

	MIC01-5GH01	MIC06-5GH RC1
Operating Voltage	5-12VDC	5-12VDC
Output	3.3V hi-low signal	"(3.3V hi-low signal)3.3V PWM"
HF System	5.8 GHz	5.8 GHz
Transmitting Power	1mW Max	1mW Max
Maximum Working current	44±4mA	44±4mA
Detection Area	≥3m	≥3m
Mounting Height	3m (4m Max)	3m (4m Max)
Sensitivity	fixed	100%/75%/50%/25% (set by remote control MH14)
Hold Time	30S	5S/1min/5min/10min
Daylight Sensor	30Lux	5lux/50Lux/Disable (set by remote control MH14)
Stand-by Period	N/A	0s/1min/10min/+∞ (set by remote control MH14)
Stand-by DIM Level	N/A	10%,30%(set by remote control MH14)
Operating Temperature	-25~85℃	-25~85℃
IP Rating	IP00	IP00

Daylight sensor

Daylight harvesting technology

Adopt Fresnel optical lens and illuminance-detected algorithm. Daylight harvesting sensor can accurately detect the illuminance value of the object being illuminated. Adjust the brightness of lamps automatically through algorithm analysis and change the illumination statue of the object being illuminated to the preset value. The product can be used in environment with different colors, materials and reflective rate of the object being illuminated and realize accurately daylight harvesting.



MS02 65

MS11 66

MS10A/MS10B 67

MS18 69

MS19 70

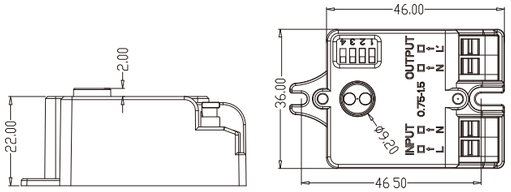
AC daylight switch
MS02

On/Off function

Identifying of artificial LED light and natural light

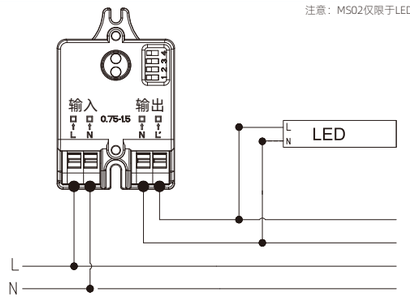
5 years warranty

CE



Wiring

注意：MS02仅限于LED灯使用



Product features

- AC daylight switch, can be built-in lighting fixtures without interference of LED light as using LED and daylight identification.

Dusk-to-dawn Switching

MS02 is suitable to installed in all types of LED lighting fixtures and switches on lights at dusk，switches off lights at dawn

Automatically switches on the lights at dusk

Stays continuously illuminated throughout the night

switches off lights at dawn

Product parameters

Operating Voltage	187-264V AC 50Hz
Rated Voltage	220-240Vac 50 Hz
No Load Power	≤ 0.5W
Type of Load	≤400W (Inductive) ≤800W（Resistive）
Daylight Threshold	5Lux/25Lux;10 Lux/50Lux;25 Lux /75Lux;50 Lux /100 Lux;100 Lux/200 Lux;150 Lux/300 Lux;200 Lux/400 Lux;不受控（测试档 1 秒）
Working Mode	ON/OFF
Operating Temperature	-20℃~60℃
Wiring	按压式 4 位端子(输入灰色 L. N. 输出淡绿色 N. L')
Certificate	CE
IP Rating	IP20

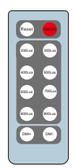
12Vdc daylight harvesting sensor/ Remote control
MS11

Daylight harvesting

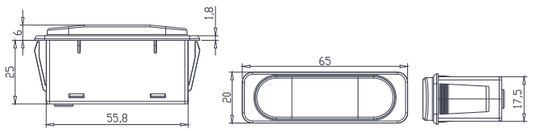
5 years warranty

TUV CE

MS11



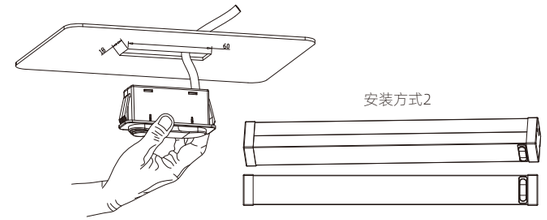
MH13



Wiring

安装方式1

安装方式2



Product features

- Automatically adjust LED output along with ambient light change. Dimming down LED lights when ambient light is high, dimming up when it's low.
- Target lux level can be set by remote control, easy to debug and configurate sensors.

Product parameters

Operating Voltage	12VDC±3V
Working Current	< 20mA
Working Mode	0-10VDC
Type of Load	linear lights, tri-proof lights and panel lights with 0-10V port
Daylight Threshold	200Lux±50Lux;300Lux±50Lux;400Lux±50Lux;500Lux±50Lux;600Lux±50Lux遥控设置
Stand-by dim Level	dimming through DIM+, DIM- buttons of the remote, stepless dimming
Operating Temperature	-25℃~60℃
Wiring	electrical wire: 3 pin AWG24, length 250MM
Certificate	CE
IP Rating	IP20

1-10V daylight harvesting sensor

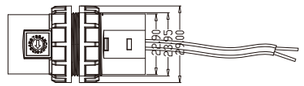
MS10

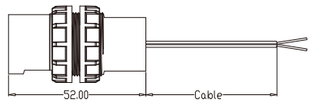
80%20% Daylight harvesting

5 Year Guarantee 5 years warranty

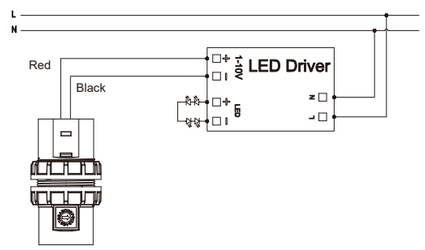
MS10 A

MS10 B





Wiring



Product features

- Automatically adjust LED output along with ambient light change. Dimming down LED lights when ambient light is high, dimming up when it's low.

Product parameters

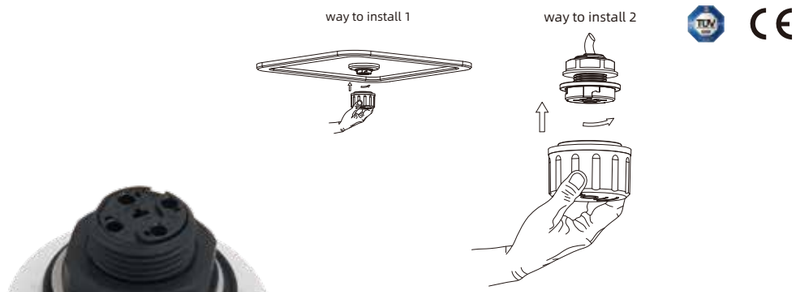
Operating Voltage	1-10V DC
Working Current	1-10V DC
Working Mode	1-10V调光
Type of Load	N/A
Daylight Threshold	100-2000Lux 通过BCD编码开关设置16个档位
Detection Range	≥3m
Operating Temperature	0℃~55℃
Wiring	Lead connection: red is the positive pole of port 1-10v; black is the negative pole of port 1-10v
Certificate	CE
IP Rating	IP20

12Vdc daylight harvesting sensor/ Zhaga book 18 interface

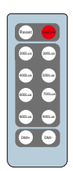
MS18

80% 20%
Daylight harvesting

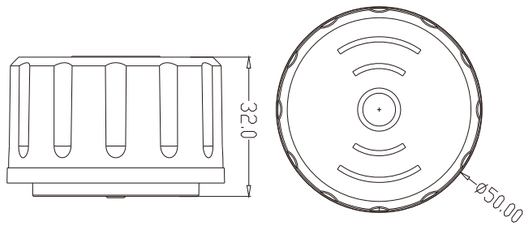
5 Year Guarantee
5 years warranty



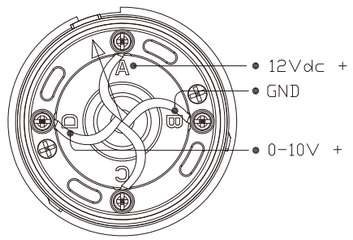
MS18



MH13



Wiring



Product features

- Automatically adjust LED output along with ambient light change. Dimming down LED lights when ambient light is high, dimming up when it's low.
- Target lux level can be set by remote control, easy to debug and configurate sensors.

Product parameters

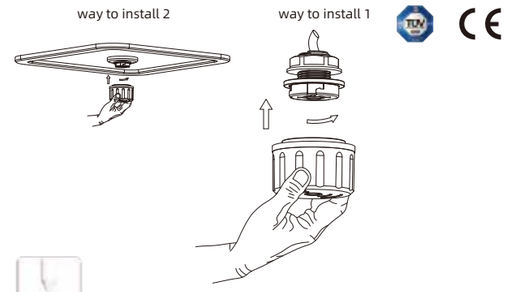
Operating Voltage	12VDC±3V
Working Current	< 20mA
Working Mode	0-10VDC
Type of Load	linear lights, tri-proof lights and panel lights with 0-10V port
Daylight Threshold	200Lux; 300Lux; 400Lux; 500Lux; 600Lux; 700Lux; 800Lux; 900Lux Via Remote setting
Stand-by dim Level	dimming through DIM+, DIM- buttons of the remote, stepless dimming
Operating Temperature	-25℃~60℃
Wiring	配合Zhaga Book 18接口
Certificate	CE
IP Rating	IP20

12Vdc daylight switch/ Zhaga book 18 interface

MS19

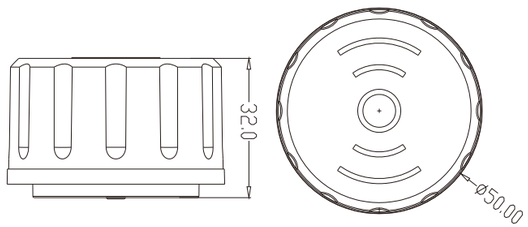
80% 20%
Daylight harvesting

5 Year Guarantee
5 years warranty

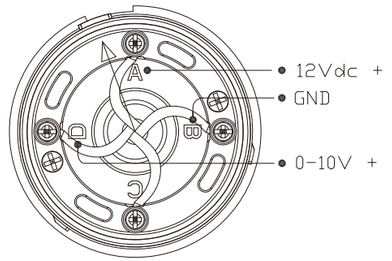


MS19

MH10



Wiring



Product features

- Automatically adjust LED output along with ambient light change. Dimming down LED lights when ambient light is high, dimming up when it's low.
- Target lux level can be set by remote control, easy to debug and configurate sensors.

Product parameters

Operating Voltage	12VDC±3V
Working Current	< 20mA
Working Mode	0-10VDC
Type of Load	linear lights, tri-proof lights, panel lights and outdoor lights with 0-10V port
Daylight Threshold	(5Lux/15Lux)/30Lux-50Lux灯灭值；(30Lux/50Lux)/70-110Lux灯灭值; 100Lux/150-200Lux灯灭值 150Lux/200-250Lux灯灭值（漫射状态） 遥控设置，因不同功率LUX值有变化。以灯光与外部混合光关断后为准。
Operating Temperature	-25℃~60℃
Wiring	配合Zhaga Book 18接口
Certificate	CE
IP Rating	IP65

Remote control

MH10 73

MH12 74

MH11 74

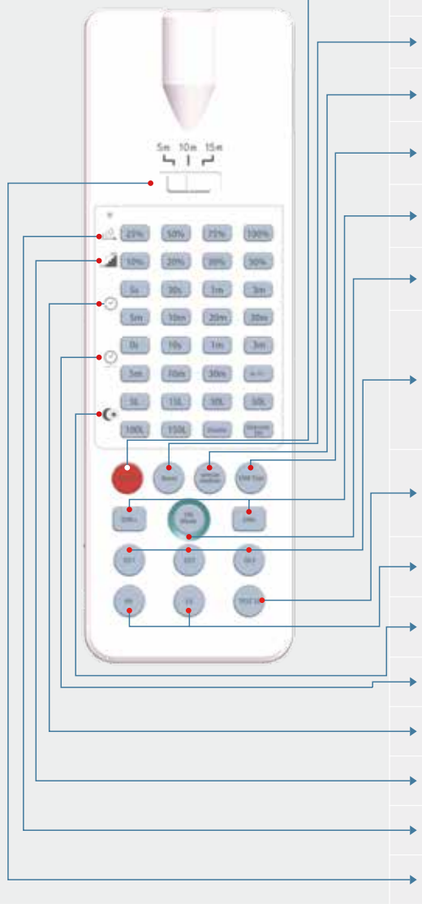
MH03 75

MH13 75

MH14 76

Remote control/ Standard version

MH10

Remote Control Setting	Button	Remarks
	ON/OFF	Press the “ON/OFF” button, the light goes to constant on/off mode, sensor is disabled. Press any button to quit from this mode and the sensor starts to work.
	Reset	Press “Reset” button, all parameters are same as setting of DIP switch or factory settings.
	Sensor motion	Press “Sensor motion” button, the light quits from the constant on/ off mode,and the sensor starts to work (The latest setting stays in validity)
	DIM Test	Press“DIM Test” button,the 1-10 V dimming works to test whether the 1-10Vdc dimming ports are connected properly.After 2s, it returns to the latest setting automatically.
	DIM+ DIM-	Short press“DIM+/DIM-” button to transmit dimming signal. The brightness of the lamp adjusts at 5% per unit. (only apply for sensor with daylight harvesting function)
	DH Mode	Long press>3s,sensor will take current light level as target lux level, to dim up/down load automatically according to the change of ambient light level. (only apply for sensor with daylight harvesting function)
	Q1 Q2 Q3	Scene Options / Detection Area / Hold Time / Stand-by period / Stand-by dim level / Daylight Sensor / Induction model QS1 / 100% / 5min / 10min / 10% / 30Lux / Hs QS2 / 100% / 10min / 30min / 10% / Disable / Hs QS3 / 100% / 20min / 30min / 10% / Disable / Hs 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.
	TEST 2S	Press the "TEST 2S" bottom can enter the test mode anytime.At the mode, the sensor parameters as below:Detection Area is 100%, Hold Time is 2s, Stand-by Dim Level is 10%, Stand-by Period is 0s, daylight sensor disable. This function only for testing. Quit the mode by pressing "RESET" or any other function buttons.
	HS LS	Press“HS”button to set the detection area to be high sensitive. Press“LS” button to set the detection area to be low sensitive. The adjustment bases on the “Detection Area”parameter you set.
		Daylight Sensor Set up daylight threshold: 5Lux/15Lux/30Lux/50Lux/100Lux/150Lux/ Disable
		Stand-by period Set up stand-by time: 0S/10S/1min/3min/5min/10min/30min/+∞
		Hold time Set up hold time: 5S/30S/1min/3min/5min/10min/20min/30min
	50% 10%	Stand-by dim level Set up stand-by dim level: 10%/20%/30%/50%
		Detection Area Set up detection area: 25%/50%/75%/100%
	5m 10m 15m	Remote Distance Toggle bottom can set the remote distance of remote control and sensor.

Remote control and code setting conversion

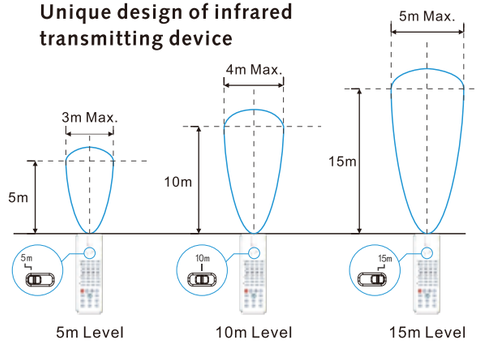
1.DIP switch setting convert to remote control Press any bottom except “RESET” on the remote control, and the sensor settings convert to the function currently selected by the remote control. (No function button settings invalid)

2 remote control convert to DIP switch setting

a. Press the "RESET" button on the remote control, and all settings return to the DIP switch settings of the sensor.

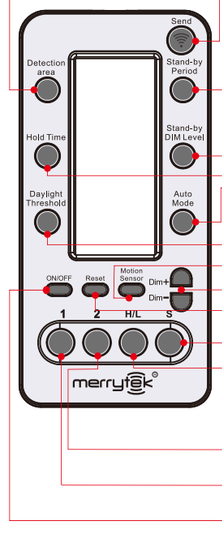
b. Turn off the power, toggle any DIP switch,connect to the power, and all settings return to the DIP switch settings when supply power again.

Unique design of infrared transmitting device



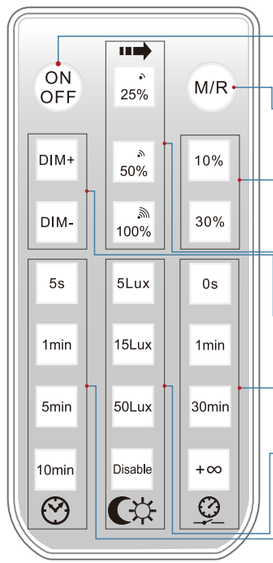
Remote control/ Viewing screen

MH12

	Remote Control Settings	Button	Remarks
		Detection area	Short press to set detection area 25% / 50% / 75% / 100%, long press (>3s) to transmit selected value.
		Send	Short press to transmit all selected value on remote screen.
		Stand-by Period	Short press to set standby period 0S / 30S / 1min / 3min / 5min / 10min / 20min / 30min / +∞ Long press >3s to transmite selected value
		Stand-by DIM Level	Short press to set standby dimming level 10% / 20% / 30% / 50%. Long press >3s to transmit selected value
		Hold Time	Short press to set hold time 0S / 30S / 1min / 3min / 5min / 10min / 20min / 30min,. Long press >3s to transmit selected value
		Auto Mode	Short press to set working mode: MD=Motion+daylight threshold; MP=Motion +Daylight priority (daylight switch) / Daylight harvesting; P= Daylight priority / Daylight harvesting Long press >3s to transmit selected mode Note: MP or P is not available for all models, please follow spec. sheet of motion sensor.
		Daylight Threshold	Short press to set Daylight threshold 5Lux / 15Lux / 30Lux / 50Lux / 100Lux / 150Lux / Disable. Long press >3s to transmit selected value When set Daylight threshold to Disable,sensor will switch on light when detect motion regardless of ambient brightness level.
		Motion Sensor	Short press to quit from constant on/off mode,sensor start to work (the previous setting stays in validity)
		Dim+/Dim-	Short press to set occupancy light level 50%-100% in MD mode; set target lux level in MP(Motion+Daylight harvesting) mode Dim level will change 5% each time press this button
		Reset	Short press to return to factory default setting. Detection Area: 100% / Hold Time: 5s / Daylight sensor: Disable / Stand-by period: 0s / Stand-by dim level: 10%
		S	NA for user
		H/L	Short press to set high **H** sensitivity (open area applicaton) / **L** low sensitivity (applied in reflection surface around area) As this remote is standard product, not all models have this function. Please refer specification of sensors.
		2	2nd optional quick setting, short press to show the setting configuration, long press >3s to save this configuration. Press “Send”to transmit selected quick setting
		1	1st optional quick setting, short press to show the setting configuration, long press >3s to save this configuration. Press “Send”to transmit selected quick setting
		ON/OFF	Short press to switch on/off light,sensor function will recover after turn off and on power Long press >3s to switch on/off light,sensor function won't recover only if press “Motion sensor”

Remote control

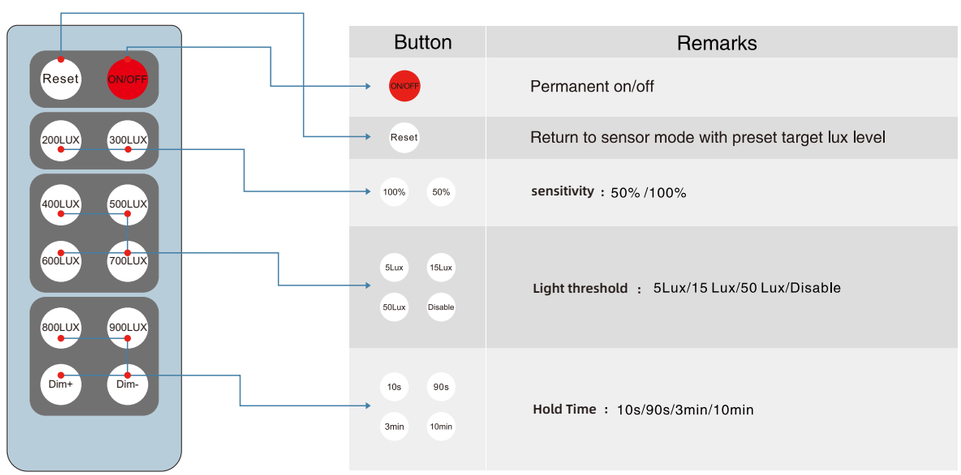
MH11



Button	Remarks
ON OFF	Press the “ON/OFF” button, the light goes to constant on/off mode, sensor is disable. Short press the “M/R” button, the sensor starts to work.
M/R	Short press “M/R” button, all parameters back to the last settings. Long press “M/R” button, all parameters back to factory settings.
10% 30%	Stand-by dim level Set up stand-by dim level: 10%/ 30%
25% 50% 100%	Detection Area Set up detection area: 25%/ 50%/ 100%
DIM+ DIM-	Short press “DIM+/DIM-” button to transmit dimming signal. The brightness of the lamp adjust at 5% per unit, from 50% to 100%.
0s 1min 30min +∞	Stand-by period Set up stand-up time: 0s/ 1min/ 30min/ +∞
5Lux 15Lux 50Lux Disable	Daylight sensor Set up daylight threshold: 5lux/ 15lux/ 50lux/ disable
5s 1min 5min 10min	Hold time Set up hold time: 5s/ 1min/ 5min/ 10min

Remote control/ Economical version

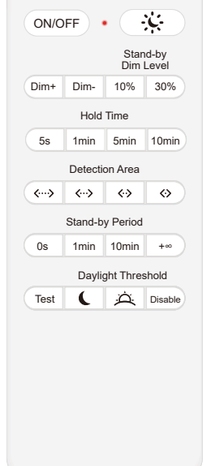
MH03



Button	Remarks
ON/OFF	Permanent on/off
Reset	Return to sensor mode with preset target lux level
100% 50%	**sensitivity** : 50% /100%
5Lux 15Lux 50Lux Disable	**Light threshold** : 5Lux/15 Lux/50 Lux/Disable
10s 90s 3min 10min	**Hold Time** : 10s/90s/3min/10min

Remote control

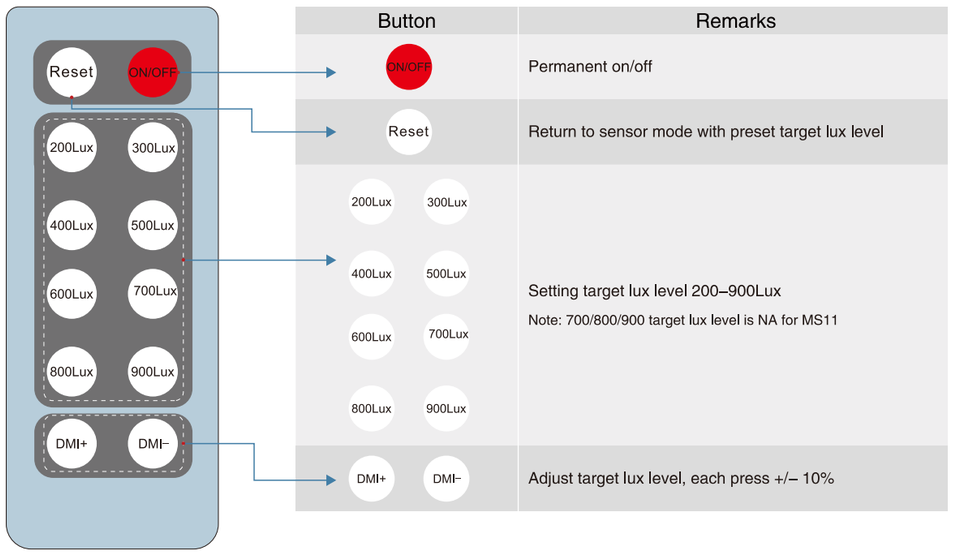
MH14



遥控按键	按键介绍	按键功能介绍
ON/OFF	常亮常灭	按下 ON/OFF 按键，感应功能取消，灯常亮或常闭，有断电记忆功能，即：按下此按键，停电后依然保持取消感应功能，灯全亮。
	夜灯功能	按下 此键灯固定亮3%。
Dim+	亮度增加	连续按下此按键，亮度增加，每次增加 5%。调整全亮时的亮度。ON/OFF 模式下依然可用。
Dim-	亮度减少	连续按下此按键，亮度增加，每次减少 5%。调整全亮时的亮度。ON/OFF 模式下依然可用。
Stand-by Dim Level	低亮亮度	10%, 30%
Hold Time	全亮时间	5s, 1min, 5min, 10min
Detection Area	灵敏度设置	100% ⇠⇢ , 75% ⇠⇢ , 50% ⇠⇢ , 25% ⇠⇢
Stand-by Period	守候时间	0s , 1min, 10min, +∞
Test	测试开关	按Test按键，灯延时2秒关闭。断电后恢复到上一次感应设置。
Daylight Threshold	照度阈值	15lux , 50lux , Disable

Remote control

MH13



Button	Remarks
ON/OFF	Permanent on/off
Reset	Return to sensor mode with preset target lux level
200Lux 300Lux 400Lux 500Lux 600Lux 700Lux 800Lux 900Lux	Setting target lux level 200–900Lux Note: 700/800/900 target lux level is NA for MS11
DMI+ DMI–	Adjust target lux level, each press +/– 10%

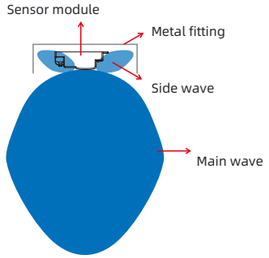
About Merrytek Microwave

Sensor Principle

The high-tech sensor works on the principle of the Doppler effect. The sensor emits a signal at a 5.8GHz high frequency and receives its echo. If a movement in the detection zone changes the echo pattern, the sensor responds and switches the light on. In addition, due to the built-in daylight sensor, it can also read the lights level. The sensor will not switch on the light if there is sufficient natural light.

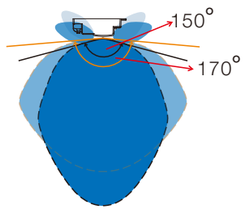
Microwave Motion Sensor

Merrytek microwave motion sensors are active motion detectors for luminaires. Besides the automatic ON-OFF control, Merrytek offers a wide range of microwave motion sensors with more energy-saving functions,



Microwave detection includes two parts called main wave and side wave. Main wave normally detects the motion signal. Side wave does not effect motion detection but might disturb main wave if the microwave motion sensor is built-in a sealed metal luminaire as microwave can not pass through metal.

When the microwave module is built into a metal lighting luminaire or installed in a sensor near a wall, the side wave will be reflected by the metal base or the wall. It can disturb the main wave. As the result of this, the microwave motion senor might not perform optimally. Reducing the detection sensitivity or the side wave will help to solve such problems.



In order to make the sensor detection more stable, Merrytek's default microwave module detecting angle is 150°, so the detection area is normally a 6-8m radius. If the customer requires a larger detecting angle, it can be customized to 170°. In the mean time, the mounting height will be shorter and it may cause unexpected detecting on the ceiling.

Application

Corridor

Stairwell

Warehouse

Car Park

Office/
Meeting room