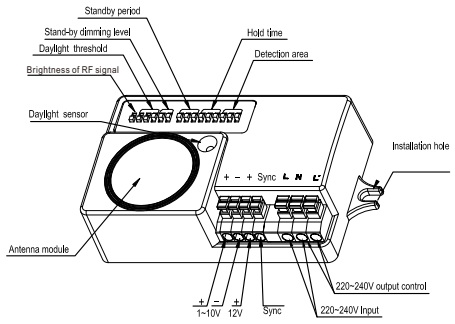
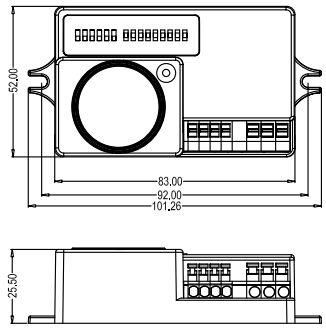
RF Wireless Networking System User's Manual
MC003V/CP + MW01

The system is a prefect wireless lighting control solution consisting of HF motion detector MC003V/CP and RF wireless transceiver MW01. High reliability, easy to install and free of wire!

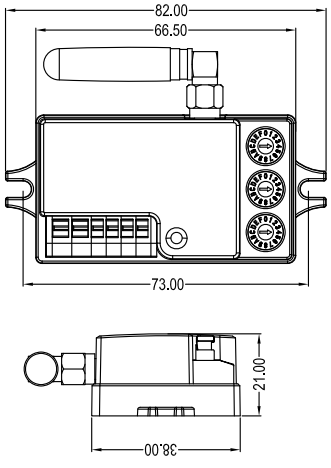
MC003V/CP is an active motion detector with HF system 5.8GHz. Motion can be detected through plastic, glass and thin non-metal materials.

MW01 is an innovative and unique wireless transceiver with frequency range 433Mhz. Due to use full digital receiving & transmitting and fixed address code for creation of groups, it has high reliability and stability. The RF module integrates advanced code check technology, significantly improved transmission reliability. Make sure exact signal transmitting and receiving, no code missing.



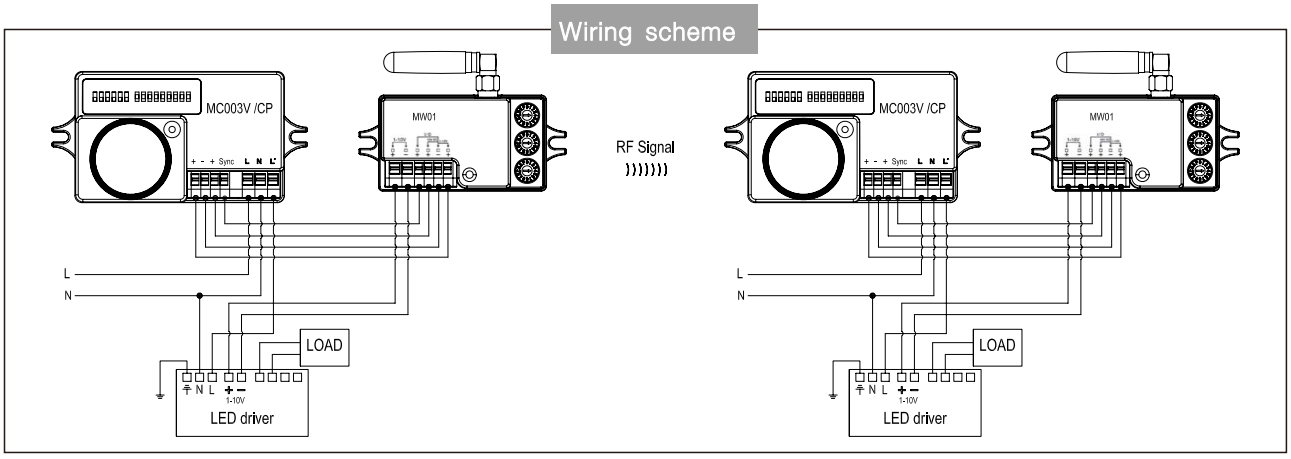


MC003V/CP	
Input voltage	220/240Vac 50Hz
Rated load	800W(inductive load), 1200W(resistive load)
Detection area	0.5~8m, adjustable.
Hold time	10s / 30s / 90s / 3min / 20min / 30min
Daylight sensor	5lux / 10lux / 30lux / 50lux / Disable
Stand-by period	5s / 5min / 10min / 30min / 1h / Disable
Stand-by dimming level	10% / 20% / 30% / 50%
Sensor principle	Microwave motion detector
Microwave frequency	5.8GHz±75MHz, ISM wave band
Transmitting power	<0.5mW (1% of transmitting power for cell phone)
Detection range	Max. (Φ x h): 16m x 10m
Recommended installation height	Wall installation: 1-1.8m, Ceiling installation: 2.5-10m
Detection angle	150°(wall installation), 360°(ceiling installation)
Motion detection	0.5~3m/s
Operating temperature	-35℃~70℃
IP rating	IP20

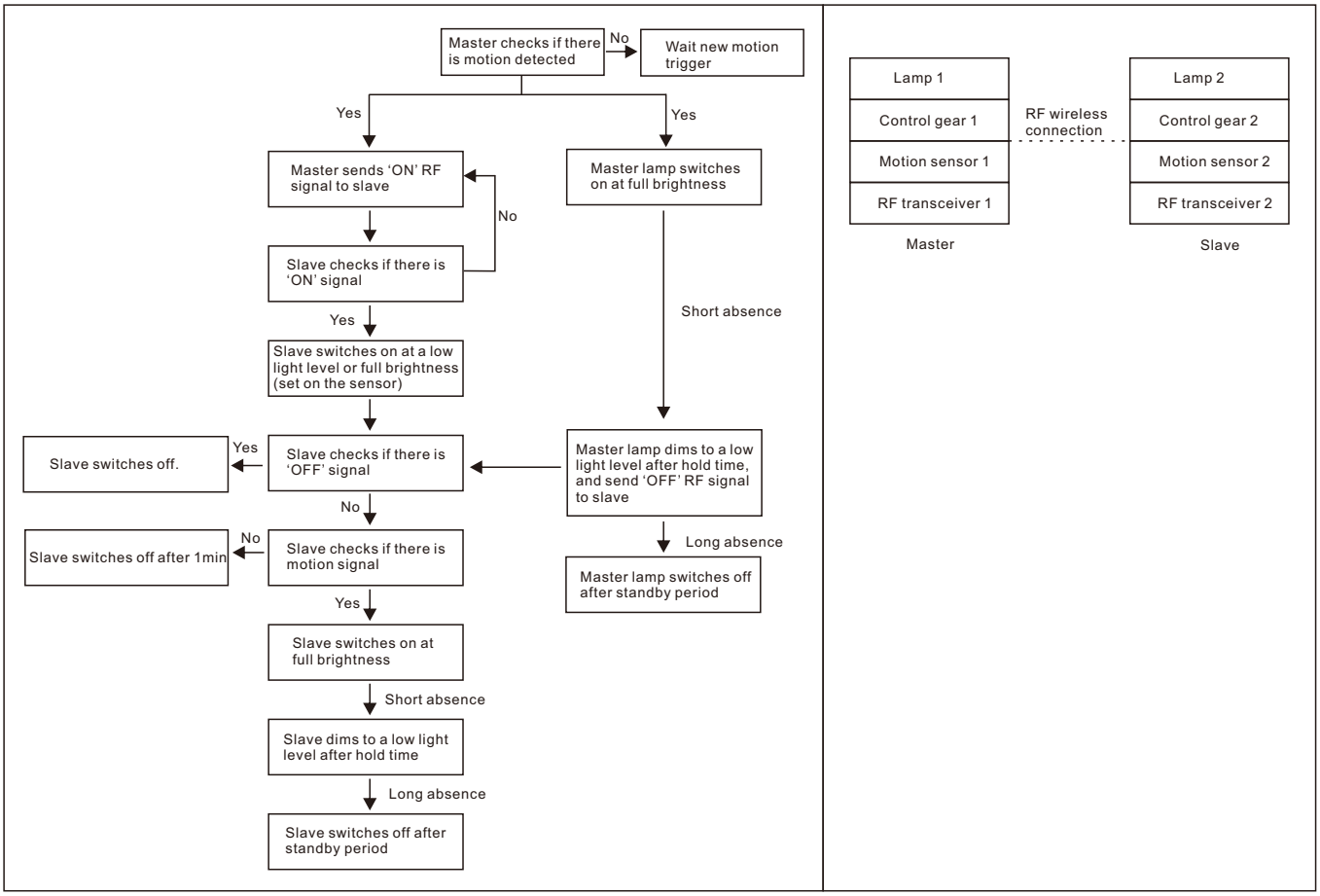


MW01	
Operating voltage	12VDC
Transmitting power	≤20mW
Frequency range	433mHz
Standby-power	<0.3W
Operating principle	Radio transmission
Module groups	Up to 16 different groups
Transmission distance	Max. 100m in the free field Max. 30m inside buildings
Operating temperature	-20℃~70℃
IP rating	IP20

Wiring scheme

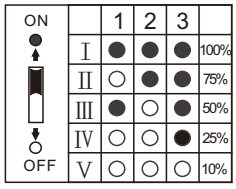


Working process



Motion Sensor Setting

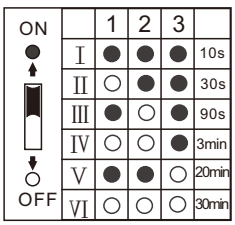
By selecting the combination on the DIP switches, sensor data can be precisely set for each specific application.



	1	2	3	
I	●	●	●	100%
II	○	●	●	75%
III	●	○	●	50%
IV	○	○	●	25%
V	○	○	○	10%

Detection area

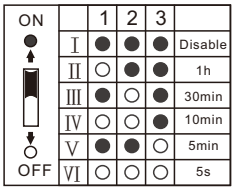
Detection area can be reduced by selecting the combination on the DIP switches to fit precisely each application .



	1	2	3	
I	●	●	●	10s
II	○	●	●	30s
III	●	○	●	90s
IV	○	○	●	3min
V	●	●	○	20min
VI	○	○	○	30min

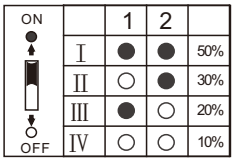
Hold time

Refers to the time period the lamp remains at 100% illumination after no motion detected.



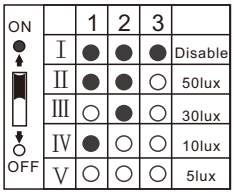
Stand-by period

Refers to the time period the lamp remains at a low light level before it completely switches off in the long absence of people. When set to Disable mode, the low light is maintained until motion is detected.



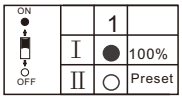
Stand-by dimming level

The low light level you would like to have after the hold time in the long absence of people.



Daylight sensor

The sensor can be set to only allow the lamp to illuminate below a defined ambient brightness threshold.
When set to Disable mode, the daylight sensor will switch on the lamp when motion is detected regardless of ambient light level.
50lux, 30lux: twilight operation, 10lux, 5lux: darkness operation only.
Note that daylight sensor is active only when lamp totally switches off.



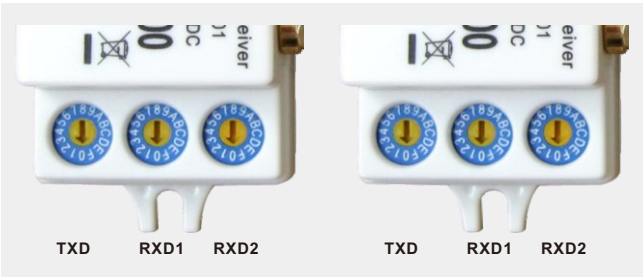
Brightness of RF Signal

Refers to lamp brightness when it receives RF signal. When set to preset, the lamp will switch on at a preset standby dimming level.

RF grouping (Up to 16 different groups possible)

Thanks to digital communication method and fixed address code, the module has high anti-interference capability and no interference to any RF sensitive device, for example, electronic keys of cars.

Each RF transceiver has 1 TXD and 2 RXD. TXD channel is used for transmitting RF signal and RXD channel is used for receiving the RF signal. Only need to set the same address code in TXD and RXD, the RF modules can automatically set up group. Address code can be easily set via rotary coding switch. See below examples.



Master Slave

Using a screwdriver to point the arrow to the same position on the TXD and RXD, the grouping is automatically set up.

LED indicator light of RF transceiver

LED indicator light	Work mode
Red light and red light flashes	Power on
Red light flashes two times	Master sends out RF signal
Green light keeps on	Slave receives RF signal from Master
OFF	RF transceiver is on standby

Notes

1, To make sure transmission distance, the antenna of RF transceiver shall be upright

2, As RF signal can not go through metal, the RF transceiver can not installed behind any metal materials.

3, The lamp(contains sensor)shouldn't be installed where is close to reflective surface.i.e.metal,glass or concrete walls.