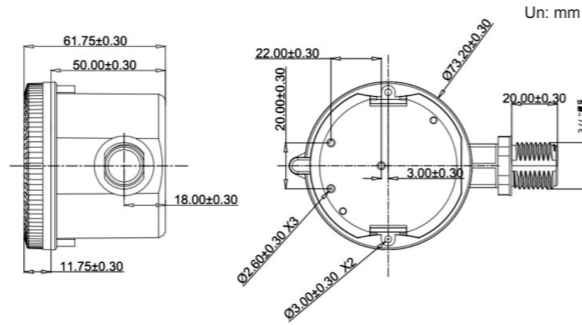# Apollo MW Sensor

113266

Thank you for purchasing this product. Please read the instruction carefully before use to ensure safe and satisfactory operation of this product. Please retain these instruction for future reference.

【Product Feature】

- Operating voltage 120~277V AC
- Patented microwave antenna, mounting height is 15m Max, suitable to install in most of warehouses
- Supports high-sensitivity and low-sensitivity modes (for metal ceilings, metal reflector mounting environments)
- Work with 1-10V dimmable LED driver, easy to achieve 2-step or 3-step dimming function
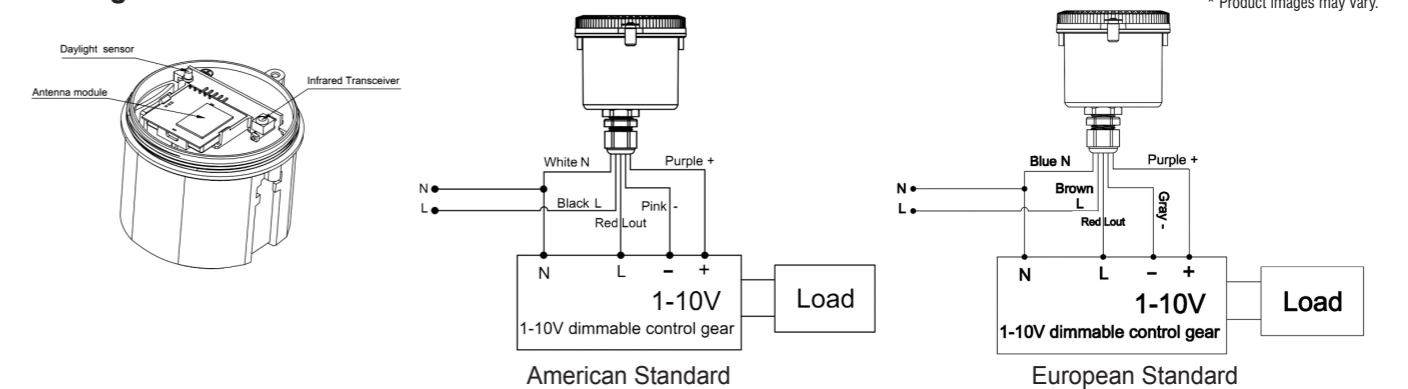- Dim+ / Dim- function
- 5 years warranty

【Parameter】

Input	
Rated Voltage	120/277VAC 50/60Hz
Stand-by Power	≤1W
Surge Test	1KV (L/N, EN61000-4-5)

Output	
Output dimming Mode	1-10VDC Dimming Signal / ON/OFF Signal
Load Capacity	@120VAC 4A Ballast @277VAC 3A Ballast
Max. Surge Capacity	50A (50% Ipeak, twidth =500us, 230Vac full load, cold start)
	80A (50% Ipeak, twidth =200us, 230Vac full load, cold start)

Dim Interface	
0-10V Dimming	< 50mA（Non-constant source）
	10% (1.3-1.7V) 20% (1.8-2.2V) 30% (2.7-3.3V) 50% (4.5-5.5V)

Sensor Parameters	
Operating Frequency	5.8 GHz ±75MHz, ISM wave band.
Transmitting Power	3mW Max.
Detecting Radius	1m/s ≥2.5m. @10m ceiling mounting, 1m/s ≥4m @12m ceiling mounting
	Test conditions: the product is set to 100% sensitivity, and there is no obvious
	occlusion in the room of 60m², 165cm person.
Mounting Height	10-15m (ceiling mounting)
3db Beam Angle	80°@XZ plane
	96°@YZ plane

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Environment	
Operating Temperature	-35~55℃
Storage Temperature	-40℃~80℃, Humidity: ≤85% (Non-condensing)

Certificate Standard	
Certificate	cULus, CE, SAA
Environmental Requirement	Compliant to RoHS 2.0, Reach
Safety Standards	IEC60669-2-1, IEC60669-1
	AS/NZS 60669.1, AS/NZS 60669.2.1
	UL60730-1
EMC standards	EN55015, EN61000-3-2, EN61000-3-3, EN61547
	AS/NZS CISPR 15, AS/NZS 4268 FCC Part 15C, Part 15B
	EN 60950-1, EN301489-1, EN 201489-3, EN300440
IP Rating	IP65
Protection Class	Class II

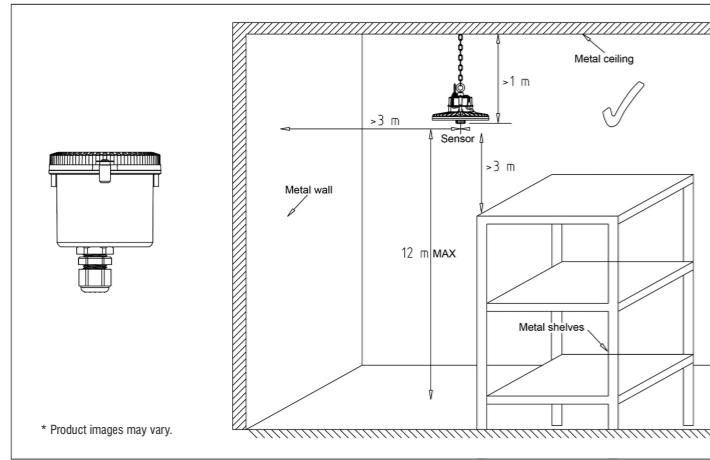| Other				
Wiring (UL)	AWG18 UL1015: Black 105℃ 600V Exposed: 810mm±10mm Strip: 9mm Tinned			
	AWG18 UL1015: Red 105℃ 600V Exposed: 810mm±10mm Strip: 9mm Tinned			
	AWG18 UL1015: White 105℃ 600V Exposed: 810mm±10mm Strip: 9mm Tinned			
	AWG22 UL1015: Pink 105℃ 600V Exposed: 810mm±10mm Strip: 9mm Tinned			
	AWG22 UL1015: Purple 105℃ 600V Exposed: 810mm±10mm Strip: 9mm Tinned			
Wiring Colour (UL)	Lin: Black	N: White	Lout: Red	-: Pink	+: Purple
Wiring (CE)	VDE(40026038): Red H05RR-F0.75mm Exposed: 900mm±10mm Strip: 9mm Tinned			
	VDE(40026038): Blue H05RR-F0.75mm Exposed: 900mm±10mm Strip: 9mm Tinned			
	VDE(40026038): Brown H05RR-F0.75mm Exposed: 900mm±10mm Strip: 9mm Tinned			
	VDE(40026038): Gray H05RR-F0.75mm Exposed: 900mm±10mm Strip: 9mm Tinned			
	VDE(40026038): Purple H05RR-F0.75mm Exposed: 900mm±10mm Strip: 9mm Tinned			
Wiring Colour (CE):	Lin: Brown	N: Blue	Lout: Red	-: Gray	+: Purple
Installation	Side-attached			
Package	Instruction + White box + White box tags + Clapboard + Carton (K=A)			

【Function】

ON-OFF function	Stand-by Period be set to "0s"
2-step dimming	Stand-by Period be set to "+∞"
3-step dimming	Stand-by Period be set to "10s / 1min / 3min / 5min / 10min / 30min"

【Wiring】
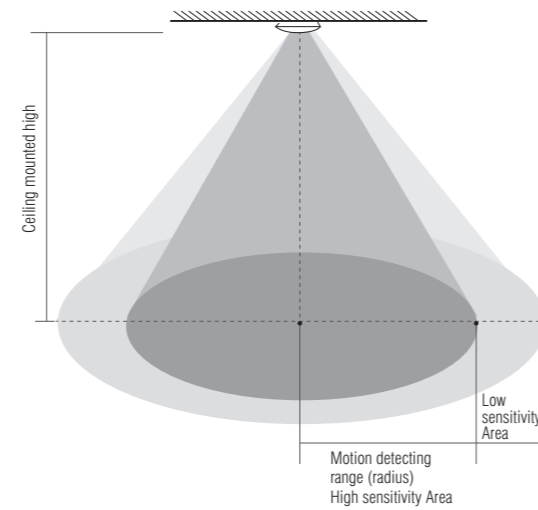

American Standard

European Standard

V2 18/10/2024

【Installation Instruction】

* Product images may vary.

Metal ceiling
Sensor
Metal wall
Metal shelves
>1 m
>3 m
>3 m
12 m MAX

Note:

The sensor is allowed to be connected to one load only. The sensor may be damaged if connecting more than one load. When installing, please pay attention to the distance between the microwave antenna and the metal frame.

【Initialization】

* Switch function / 3-step dimming function: the light will be turned on 100% brightness by the initial energizing sensor, and will be turned off after 10 seconds. During initialization, no external motion sensing signal will be detected.
* 2-step dimming function: the light will turn on 100% brightness in the initial energizing sensor, and turn to low brightness 10 seconds later (the brightness set by stand-by dim level). During initialization, no external motion sensing signal will be detected.

【Default setting】

Sensitivity: 100%, Hold time: 5s, Daylight sensor: Disable, Stand by period: 0s, Stand by DIM level: 10%
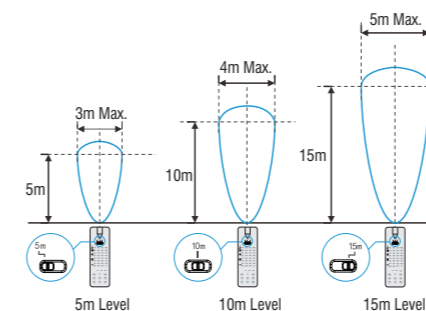
【Application Notice】

* Sensor should be installed by a professional electrician. Please turn off power before installing, wiring changing the setting of DIP switch.
* The distance is related to factors such as the moving speed of the moving object, the size of the moving object, the installation height, the installation angle, whether the installation environment is open, and the material of the reflector. The detection distance given in the specification is a typical value, it is 165cm / 65kg people who walks in an open indoor environment
* The daylight threshold is in a sunny environment, no shadows, and ambient light diffuse reflection conditions. In different periods, climates, and environments, the daylight value detected by the light sensor may be different.
* Sensor parameters may need to be reconfigured in different installation environments, please refer to the following instructions or contact the manufacturer
* This sensor is only for indoor use, outdoor use may be false triggered by wind and rain, and surrounding moving objects.
* The installation height of the sensor product cannot exceed 15 meters, and the suitable height is 12 meters; the distance between the two sensors should be greater than 3 meters
* When the sensor is installed in a metal lamp, on a metal reflective surface, or in a narrow closed environment, the microwaves will be reflected multiple times and cause false triggering. Please reduce the sensor sensitivity or contact the manufacturer for technical support.
* Sensor is compatible with different 0-10V driver but dimming effect will be different.
* For the new installation environment, it is recommended to test 5pcs samples before installation.

【Detection Range】

Ceiling mounted high

Low sensitivity Area

Motion detecting range (radius)
High sensitivity Area

【Remote Control 78774】

Remote Control Setting	Button	Remarks
	ON/OFF	Press the "ON/OFF" button, the load light enters the normal on/off mode, and the sensing function is disabled. In the normal on/off mode, the "DIM+/DIM-" function can be used to maintain the load light brightness after powering on again. In the normal on mode, the load light enter ON after powering on again. If the load light is OFF, the load light is ON for 2 seconds and then enter OFF after powering on again.
	Reset	Press "Reset" button, all parameters are same as setting of DIP switch or factory settings. Note: Only the product has DIP switch, it will revert to the current DIP setting.
	Sensor Motion	Press "Sensor motion" button, the light quits from the normal on/off mode, and the sensor starts to work. (The latest setting stays in validity)
	DIM Test	Press "DIM Test" button, the 0-10V dimming works to test whether the 1-10Vdc dimming ports are connected properly. After 2s, it returns to the latest setting automatically.
	Override DH	Long Press 3s "Override DH" button to exit the Daylight priority mode or Daylight harvesting mode, and then enter the Daylight Sensor mode. (The latest setting stays in validity)
	DIM+ DIM-	Short press "DIM+/DIM-" button to transmit dimming signal, the brightness of the load light adjusts at 5% per unit. Long press "DIM+/DIM-" button to transmit dimming signal, the brightness of the load light adjusts at 5% per unit. Dimming range:50%-100%. (apply for normal on mode and sensor with daylight harvesting function, DIM+/- is not applicable to ON-OFF Sensor.)
	DH Mode	Long Press 3s to enter the Daylight priority function(MC054V RC3) or Daylight harvesting function (MC054V RC4). Note: Short press "Disable" button will exit the Daylight priority mode (MC054V RC3) and the Daylight Sensor enter the normal induction mode.
	QS1 QS2 QS3	(see table below)
	TEST 2S	Press the "TEST 2s" botton can enter the test mode anytime. At test 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 is disabled. This function only for testing. Quit the test mode by pressing "RESET" or any other function buttons. This mode has no memory function. After powering on again, the parameters are restored to the last setting. Note: If the sensor have the wireless networking function, the botton provides the functions is entering the distribution network mode.
	HS LS	Press "HS" botton to set the detection area to high sensitivity. Press "LS" botton to set the detection area to low sensitivity. The Induction mode is adjusted at the setting detection area. Note: This button is invalid for low-mount sensor.
	☾*	**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 / +∞ Note: Stand-by period is not applicable to ON-OFF Sensor.
	⏱	**Hold Time** Set up hold time: 5S / 30S / 1min / 3min / 5min / 10min / 20min / 30min
		Stand-by Dim Level Set up stand-by dim level: 10% / 20% / 30% / 50% Note: Stand-by DIM Level is not applicable to ON-OFF Sensor.
	⫰⫰	**Detection Area** Set up detection area: 25% / 50% / 75% / 100%
	5m 10m 15m	**Remote Distance** Toggle button can set the remote distance of remote control and sensor.

Remote Control Setting panel:

5m 10m 15m

25%	50%	75%	100%
10%	20%	30%	50%
5s	30s	1m	3m
5m	10m	20m	30m
0s	10s	1m	3m
5m	10m	30m	+∞
5L	15L	30L	50L
100L	150L	Disable	Override DH

ON/OFF Reset Sensor Motion DIM Test
DIM+ DH Mode DIM-
QS1 QS2 QS3
HS LS TEST 2S

Scene Options	Detection Area	Hold Time	Stand-by Period	Stand-by Dim Level	Daylight Sensor	Sensitivity Model
QS1	100%	5min	10min	10%	30Lux	Hs
QS2	100%	10min	30min	10%	Disable	Hs
QS3	100%	20min	30min	10%	Disable	Hs

Note: The sensor parameters can be adjusted by pressing the corresponding button. When user press any button to change the sensor parameters, the last setting prevails. If the sensor doesn't have the function of the above parameters, that parameter is invalid. (Stand-by period and Stand-by DIM Level are not applicable to ON-OFF Sensor. Induction model is not applicable to low-mount sensor.)

Unique design of infrared transmitting device

5m Max.
4m Max.
3m Max.
5m 10m 15m

5m Level 10m Level 15m Level

Remote controland 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 DIPswitch 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.