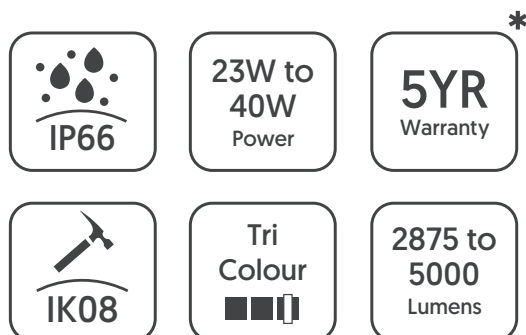


# AquaPack Tri-Colour & Multi-Power

## Industrial Range

CODE: AQUA-WS-600TC/MS

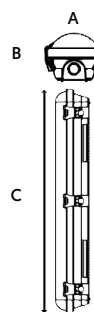
**QVIS**<sup>®</sup>  
LED LIGHTING



| Specification             | AquaPack   |
|---------------------------|--|
| System Power [Selectable] | 23W to 40W   |
| Sensor Driver             | Merrytek   |
| LED Chipset               | Epistar  |
| Colour Rendering Index    | >80  |
| Lumen Output              | 2875Lm to 5000Lm   |
| LED Efficacy              | 125 Lm/cW  |
| Power Factor              | 0.92   |
| Dimmable                  | Corridor   |
| IP Rating                 | IP66   |
| IK Rating                 | IK08   |
| Colour Temperature        | 3000K / 4000K / 5000K  |
| Beam Spread               | 120°   |
| Housing Material          | ABS Plastic  |
| Diffuser Material         | Polycarbonate [Opal]   |
| Operating Temperature     | -20 to +40 °C  |
| Input Voltage             | AC200-240V, 50/60Hz  |
| Dimensions                | 590mm x 95mm x 75mm  |
| Weight                    | 0.77kg   |
| MacAdam Step              | <3   |
| Lifetime                  | 50,000 hours, L70-B10 [Ta 25 °C]   |
| CE Standards              | EN60598-1, EN62493, EN55015, EN61547, EN61000-3-2, EN61000-3-3, EN62722-1, EN62722-2-1 and EN50581 |
| CE Directives             | LVD, EMC, ERP & RoHS   |

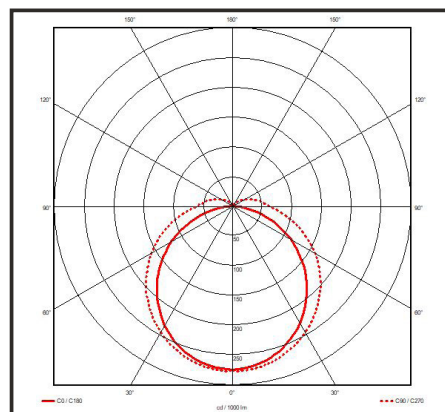
\* Warranty terms and conditions apply

### TECHNICAL DRAWINGS



A = 95mm      C = 590mm  
B = 75mm

### LUMINOUS INTENSITY DISTRIBUTION



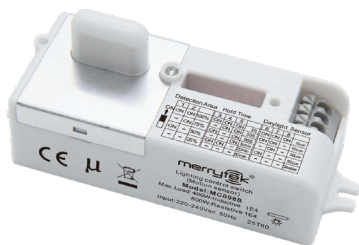
**Information is subject to change and can be withdrawn without notice**

For further information on our products or terms and conditions visit our website [www.qvis.co.uk/lighting](http://www.qvis.co.uk/lighting) or email: [sales@qvislighting.com](mailto:sales@qvislighting.com)

# On/Off Microwave Sensor



## 1. Features



- Ultra-slim design for Tri-proof LED light
- Patented antenna design makes reliable detecting, avoid missing triggered when sensor built-in backside of metal LED plate.
- Adjustable detecting sensitivity via DIP switches, suitable to variety of installation sites.
- Support 6m Max. Mounting height .
- 5 years warranty

## 2. Parameter

|                       |                           |   |
|-----------------------|---------------------------|---|
| Input                 | Operating Voltage Range   | 198-264V AC, 50Hz/60Hz  |
|                       | Rated Voltage             | 220-240V AC, 50Hz/60Hz  |
|                       | Stand-by Power            | ≤0.5W   |
|                       | Surge Test                | L-N: 1kV  |
| Output                | Working Mode              | ON/OFF function   |
|                       | Type of Load              | Inductive or Resistive  |
|                       | Load Capacity             | 400W(Inductive) ; 800W(Resistive)   |
|                       | Max. Surge Capacity       | 30A (50% I <sub>peak</sub> , t <sub>width</sub> =500uS, 230Vac full load, cold start);<br>60A (50% I <sub>peak</sub> , t <sub>width</sub> =200uS, 230Vac, full load, cold start ) |
| Sensor Parameters     | Operating Frequency       | 5.8 GHz ±75 MHz , ISM Band.   |
|                       | Transmitting power        | 0.5mW Max.  |
|                       | Hold time                 | 5s//30s/90s/5min/20min/30min  |
|                       | Detection Sensitivity     | 100%/75%/50%/25%  |
|                       | Daylight Sensor           | 2Lux/10Lux/30Lux/50Lux/Disable  |
|                       | Detecting Radius          | 3-10m (mounting height 3-4m)<br>2-8m(mounting height 6m)  |
|                       | Mounting Height           | 6m Max.   |
|                       | Detecting Angle           | 150° (Wall mounted), 360° (Ceiling mounted)   |
| Operating Environment | Operating Temperature     | -25℃...+60℃   |
|                       | Storage Temperature       | -40℃...+80℃(Humidity: 10%-95% Non-condensing)   |
| Certificate Standards | Safety standards          | EN61058-1   |
|                       | EMC standards             | EN300440; EN301489-1; EN55015; EN61547; EN61000-3-2;<br>EN61000-3-3; EN62479  |
|                       | Environmental Requirement | Compliant to RoHS   |
|                       | Certificate               | CE, RED   |

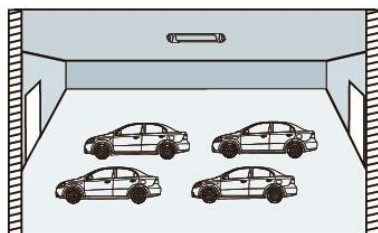
# On/Off Microwave Sensor



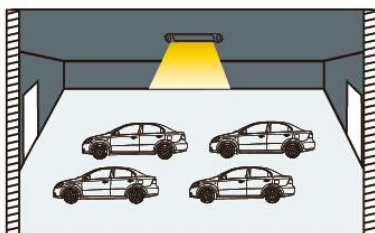
|   |                  |  |
|---|------------------|--|
| Others  | Wiring           | Press-in Type Terminals, wire diameter : 0.75-1.5mm <sup>2</sup> |
|   | IP Rating        | IP20   |
|   | Protection Class | Class II   |
|   | Installation     | Built-in   |
|   | Dimension        | 77.5*34.5*22mm   |
|   | Package          | Bubble bag+Clapboard + Carton ( K=A )                            |
|   | Net Weight       | 58±2g  |
|   | Lifetime         | 5 years warranty @Ta 230V full load                              |
| <p>Note</p> <p>1. "N/A" means not available.</p> <p>2. Detection area is effected on volume of motion object and motion speed. The detection area is tested by a 170cm height person and walking speed is 0.3m/s.</p> |                  |  |

## 3.Function

### On/OFF Function



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

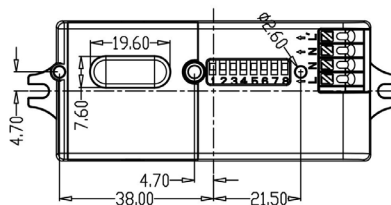
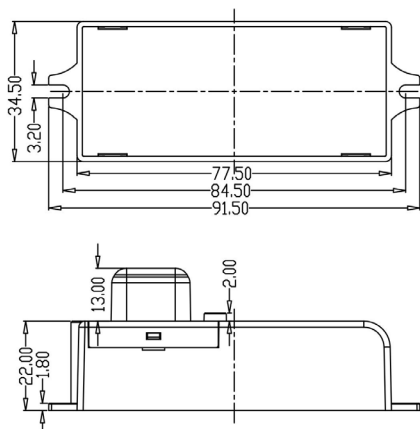


- ② With insufficient ambient light, the sensor switches on the light when motion is detected.



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

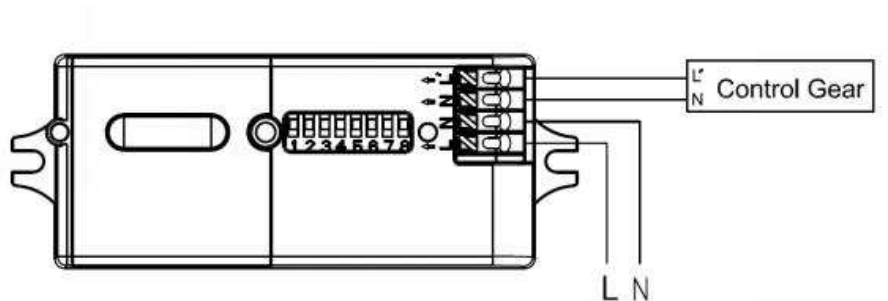
## 4. Dimension (mm)



# On/Off Microwave Sensor

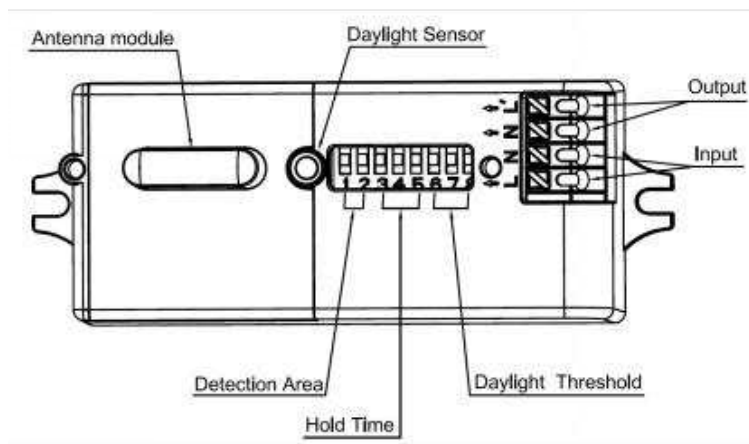


## 5. Wiring



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

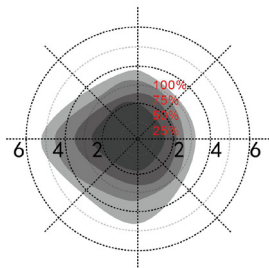
## 6. Structure



## 7. Radiation Pattern

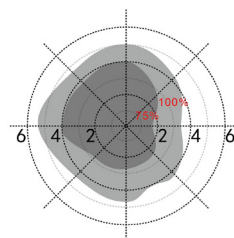
### 1) Ceiling mounting

Ceiling mounted height: 3m  
Sensitivity: 100%/75%/50%/25%



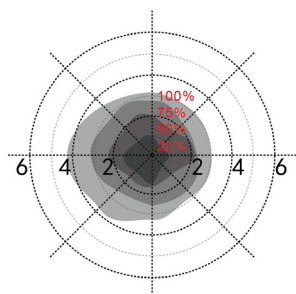
Normal moving (Speed:1m/s)

Ceiling mounted height: 6m(\*)  
Sensitivity:100%/75%

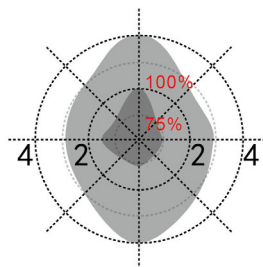


Normal moving (Speed:1m/s)

# On/Off Microwave Sensor



Slow moving (Speed 0.3m/s)

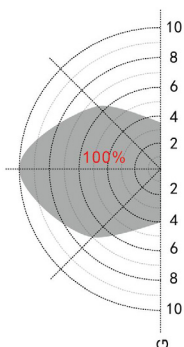


Slow moving (Speed: 0.3m/s)

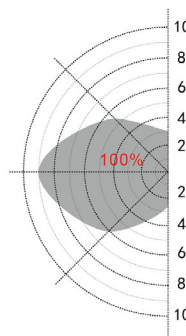
\*Only 100%/75% detection sensitivity is workable when installed at 6m mounting height. 25%/50% sensitivity is not able to detect motion signal.

## 2) Wall mounting

Horizon mounted height: 2m  
Sensitivity: 100%



Normal moving (Speed: 1m/s)



Slow moving (Speed 0.3m/s)

## 8. DIP Switch Setting

Detection Area (Sensitivity)

|      | 1  | 2  |
|------|----|----|
| 100% | ON | ON |
| 75%  | -  | ON |
| 50%  | ON | -  |
| 25%  | -  | -  |

# On/Off Microwave Sensor



## Hold Time

|     | 3  | 4  | 5  |       |
|-----|----|----|----|-------|
| I   | ON | ON | ON | 5S    |
| II  | -  | ON | ON | 30S   |
| III | ON | -  | ON | 90S   |
| IV  | -  | -  | ON | 5min  |
| V   | ON | ON | -  | 20min |
| VI  | -  | -  | -  | 30min |

## Daylight Threshold

|     | 6  | 7  | 8  |          |
|-----|----|----|----|----------|
| I   | ON | ON | ON | 2Lux     |
| II  | ON | ON | -  | 10Lux    |
| III | -  | ON | -  | 30Lux    |
| IV  | ON | -  | -  | 50Lux    |
| V   | -  | -  | -  | Disable* |

\*Disable” means the daylight sensor not work. it will turn on light once motion is detected regardless of ambient light .

## 9. Override Function

After initialization,Continuously switch ON/OFF 3 times to override sensor function. 2s for each on/off switch .Lights keep on all the time.

Power off and on again to recover sensor function. 2s for each On/Off switch .

## 10. Initialization

After power on, the sensor automatically turns on light at 100% brightness. After 10sec, it turns off the light. During the initialization, the sensor is not able to detect movement.

## 11. Factory Setting

Detection area: 100%, Hold Time: 5S, Daylight Sensor: Disable

## 12. Application Notice

- 1) The sensor should be installed by a professional electrician. Please turn off the power before installing, wiring, changing the setting of the DIP switch.
- 2) The sensor which installed in the plastic and glass lampshade will reduce the sensitivity. For every 3mm increase in thickness, the sensitivity will be reduced by 20%.
- 3) The light sensitivity threshold is in a sunny environment, no shadow and ambient light diffuse reflection. Ambient lux level will be different in different environment, weather, climate, time-of-day and season.
- 4) The parameters of the sensor may need to be reconfigured in different installation environments.
- 5) This sensor is for indoor use only. It will affect the waterproof effect for outdoor use. Wind, rain, and moving objects around will cause false triggering.
- 6) The distance between any inductive sensors should be greater than 3m.
- 7) Do not place the sensor close to high-density objects such as metal, glass, concrete walls, etc, false triggering could happen. When the sensor is installed in a metal lamp, metal reflective surface, or a narrow enclosed environment, the microwave will be reflected repeatedly and cause false triggering. Please reduce the sensitivity or contact the manufacturer for technical support.
- 8) Please ensure that there are no moving signals around the sensor, such as fan, DC motor, sewer pipe, air outlet, etc., the sensor may generate false trigger.
- 9) You are advised to test 5 samples before mass application of sensor in a new lighting project.
- 10) Due to continuous improvement, the contents of this instruction could be changed without prior notice.
- 11) If the sensor is built under metal board, make sure the sensor surface should be seamless close to the metal plate without space.

