# AQW — Wireless Air Quality Sensors

ADTEK

## ■ Description

AQW series was designed for air quality measure, such as PM2.5, Ch20, CO2, temperature and humidity. Use high-precision sensor to ensure long-term stability and reliability of the instrument.

Panel with large LCD display, easy to read the measuring value. And also have 4 LED indicator to indicate air quality status and device running.

AQW series communication port is WiFi, it's convenient for data collect, support Modbus TCP protocol, and others cloud protocol.

## ■ Applications

Production Line , Warehouse , Public Places , Intelligent Building
Smart Home , Building Automation air quality monitoring
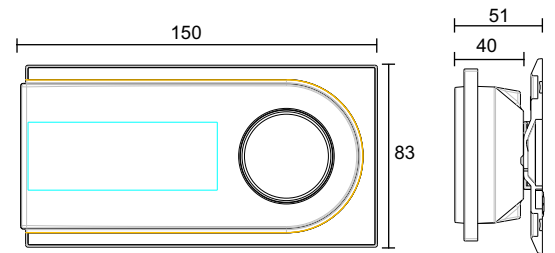
## ■ Ordering Information

| MODEL | FUNCTION |
|---|---|
| AQWCO2HT | CO2 + Temp. & Humi. Sensor |
| AQWPM2.5HT | PM2.5 + Temp. & Humi. Sensor |
| AQWCH2OHT | CH2O + Temp. & Humi. Sensor |
| AQWHT | Temp. & Humi. Sensor |

## ■ Technical Specification

| PM2.5 | |
|---|---|
| Sensor Type | Laser Type PM2.5 Sensor (Mie) |
| Warm Up Time | $\leqq$5 minute |
| Measuring Ability | 1um (Minimum particles) |
| Measuring Range | 0~500 µg/m³ |
| **CO2** | |
| CO2 Measuring method | NDIR Sensor |
| Measuring Range | 0~3000ppm |
| Accuracy | $\pm$80ppm |
| Reproducibility | $\pm$20ppm |
| Resolution | 1ppm |
| **CH2O** | |
| Sensor Type | Electrochemical |
| Gas Type | Formaldehyde |
| Interference Gas | Alcohol and CO |
| Measuring Range | 0~5ppm |
| Resolution | 0.01ppm |
| Warm Up Time | $\leqq$3 minute |
| Response Time | $\leqq$60 second |
| Recovery Time | $\leqq$60 second |
| **Temp. & Humi.** | |
| Sensor Type | Digital capacitance sensing element |
| Temp. Range | 0~50℃ (32~122℉) |
| Accuracy | $\pm$1℃ @25℃ |
| Humi. Range | 10~95%RH |
| Accuracy | $\pm$5%RH @25℃ |
| **System** | |
| Power Supply | Input:100~240Vac,0.5A / Output: 5Vdc,2A |
| Operating Temp. | 0~50℃ (32~122℉) |
| Operating Humi. | 0~95%RH (Non-condensing) CH2O : 15~95%RH (Non-condensing) |
| Dimensions | 150X83x40mm |
| **Communication** | |
| WiFi Wireless | IEEE802.11b/g/n |
| Data Rate | 150Mbps |
| Power | 802.11b: 16$\pm$2dBm; 802.11g: 14$\pm$2dBm; 802.11n:13$\pm$2dBm |
| Distance | 150m(Open space) |
| Connection | Compatible WiFi connectivity and support WPS |
| Protocol | Modbus TCP / MQTT* / Microsoft Azure* / IBM Bluemix* |

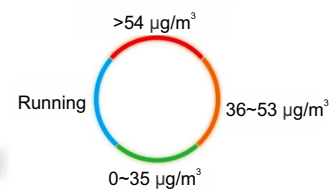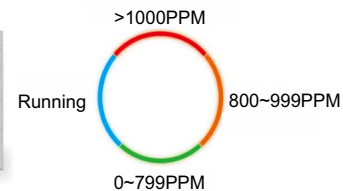*Note: MQTT / Microsoft Azure / IBM Bluemix are customized only

## ■ Dimensions

150
51
40
83

Unit:mm

## ■ LED Indicator

### PM2.5



Running

>54 µg/m³
36~53 µg/m³
0~35 µg/m³

### CO2



Running

>1000PPM
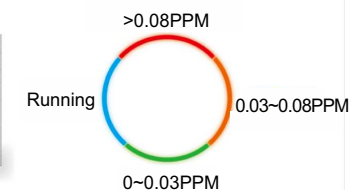800~999PPM
0~799PPM

### CH2O



Running

>0.08PPM
0.03~0.08PPM
0~0.03PPM

## ■ Notice

1. If using in a small space, that should has well ventilated

2. Keep away from heat and avoid sunlight or heat radiation

3. Don't use the sensor for long time in high dusty environments