Description:

AQD series displays four most crucial parameters of IAQ; CO2 level, PM2.5 concentration, humidity and temperature. It also provides date, day and time. It uses good quality sensors; such as the NDIR CO2 sensor, laser scattering principle sensor for PM2.5, temperature and humidity sensors which are usually available only in laboratory air quality diagnostic equipment.

AQD-101 series measures CO2 and PM2.5 which may be rarely noticed. And when the concentration reaches a certain limitation, AQD-101 can provide relays to control some auxiliary devices, such as ventilation system or air purifier, so that the indoor air quality can be kept in a good level.

Monitoring humidity is very important as extended period in an area with humidity over 60% or below 40% can create conditions for mold and mildew growth that may cause allergies and affect general health.

Applications:

Indoor places where would be required to detect CO2, Temperature and Humidity such as,
- Commercial building / office
- Train station
- Shopping Mall
- Warehouse
- Museum
- Hospital
- Medical Center
- Factory
- Library

GMM AQD-101 4-in-1 CO2 / PM2.5 / Humidity / Temperature Air Quality Display (527 x 217)

SKU: AECLAQD101020
Manufacture warranty period: 12 months
Country of Origin: Taiwan

Feature:

- 4 indicators of air quality: CO2, PM2.5, Temperature, Humidity.
- Clock and Calendar Display: Year, Month, Date, Day, Time.
- Built-in Non-dispersive infrared (NDIR) CO2 sensor with automatic calibration
- Built-in Laser Distributing PM2.5 sensors for reliable air detection
- Built-in high accuracy and reliable Temperature, humidity sensors.
- Clear and Bright 7 segment LED display
- Non-stop real time data monitoring
- 3 Relays can be used to activate ventilation system or alarm devices
- RS485 Modbus communication or switchable RS485/ LoRa transmission
- Comply with " Taiwan indoor air quality management act"
- Maintenance-free for normal indoor applications
- CE & FCC Certification
- Customized specification is available upon request

Specifications:

- Measurements: CO2, PM2.5, Humidity, Temperature
- Clock and calendar: Real time clock and calendar
- **CO2 Measurement**
  - Measurement principle: Non-dispersive infrared (NDIR) with automatic calibration
  - Range: 0 ~ 9999 ppm
  - Accuracy: 0 ~ 2000ppm ±3% and ±40 ppm*
  - Response time: 2 minutes by 90%
  - Maintenance: Maintenance-free for normal indoor applications
  - Display: digit 4 digits, 0 ~ 9999
  - Relay setting: 1200ppm
  - Hysteresis: 100ppm
- **PM2.5 Measurement**
  - Measurement principle Laser distributing
  - Range: 0~ 600 µg/m3
  - Accuracy: 0~ 100µg/m3(±10%µg/m3), 100~ 600µg/m3 (±10%)
  - Response time: ≦10 s
  - Maintenance: Maintenance-free for normal indoor applications
  - Display: digit 3 digits, 0 ~ 999
  - Relay setting: 75 µg/m3
  - Hysteresis: 10 µg/m3
- **Humidity Measurement**
  - Range: 0 ~ 95 %RH
  - Accuracy tolerance: ± 3 %RH (typical)
  - Repeatability: ± 0.1 %RH
  - Response time: τ63 < 8 s (τ63%, 25℃)
  - Long-term drift: < 0.5 %RH / year
  - Display: digit 2 digits, 0 ~ 99
  - Relay setting: 70%RH
  - Hysteresis: 5%RH
- **Temperature Measurement**
  - Range: -10 ~ 50°C
  - Accuracy tolerance: ± 0.3 ℃ (typical)
  - Repeatability: ± 0.1 ℃
  - Response time: 5~30 s (τ63%, 25℃)
  - Long-term drift: < 0.04 ℃/ year
  - Display: digit 3 digits (One decimal point), 0.0 ~ 99.9
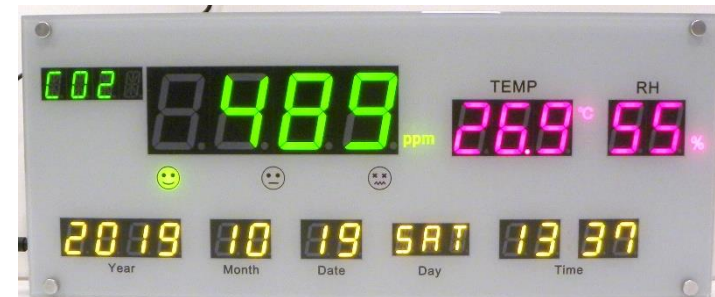 - Relay setting: 28℃
  - Hysteresis: 1℃

- Power Supply: 12 VDC (supply with an AC adapter 100 ~ 240V / 50 ~ 60Hz)
- Display: 7 segment LED display
- Installation: wall-mount
- Output signals:
  - RS485 (Modbus RTU)
  - Switchable RS485 or LoRa (Peer to Peer), radio frequency band: 868.0 ~ 912.9 MHz
- Alarm output: 3 Relay outputs can be specified as CO2, PM2.5, relative humidity, or temperature N.O. and N.C. (2A/30VDC)
- Housing material: PMMA panel (4mm), SPCC casing (1mm)
- Dimensions (mm): 527 x 217 x 32
- Weight: 2700g

*Accuracy is specified at room temperature +25°C and at normal pressure 101.3 kPa. Specification is referenced to certified calibration mixtures. Uncertainty of calibration gas mixtures (+-1% currently) is to be added to the specified accuracy for absolute measurements.

Standard Package:

- 4-in-1 Air Quality Display
- User Manual

*All information is subject to change without prior notice.

(1) Gas Type: CO2 or PM2.5
(2) CO2 or PM2.5 Concentration Reading
(3) Measurement unit: ppm for CO2, ug/m3 for PM2.5
(4) Temperature reading
(5) Humidity reading
(6) Air Quality Indication: Green-Good; Yelllow-Normal; Red-Bad
(7) Year/Month/Date
(8) Day of Week
(9) Time in 24-hour clock
(10) SD card indicator