

### OverView:

TxAQ84 All-In-One Air Quality Transducer detects temperature, humidity, CO2, PM2.5, PM10, VOC, and formaldehyde—up to 7 parameters. It offers RS485 output with a built-in Modbus protocol for real-time, multi-point data detection. The indoor model can include a display screen and a three-color LED indicator to show air quality status. Both indoor and top suction types support RS485 communication configuration. With wide power supply options and protection features, it's ideal for air quality monitoring in commercial complexes, offices, hotels, airports, and schools.

#### **Feature:**

- High-precision sensor for stable air quality measurement.
- Detects temperature, humidity, CO2, PM2.5, PM10, VOC, and formaldehyde.
- 3-color LED indicator with an optional off function for air quality display.
- Overvoltage and reverse connection protection for reliability.
- Optional RS485 output (isolated/non-isolated).
- Suitable for indoor or top suction installation across various settings.

## **Application:**

air quality monitoring in commercial complexes, offices, hotels, airports, and schools.2. HVAC

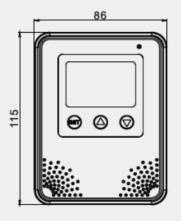
#### TxAQ84

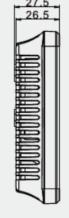
All-In-One Air Quality
Transducer

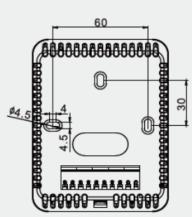




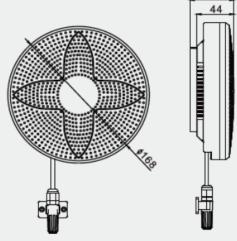








Indoor type



Top-suction type



# **Specifications:**

### All-In-One Air Quality TxAQ84

| Specifico          | ations:      | All  | III One All Quality | TAAQUT                                |  |  |  |  |  |  |
|--------------------|--------------|--|---------------------|---------------------------------------|--|--|--|--|--|--|
|                    | Temperatui   | re   |                     | Relative Humidity                     |  |  |  |  |  |  |
| Sensor             | Digital temp | erature sensor   | Sensor              | Digital temperature sensor            |  |  |  |  |  |  |
| Range              | 0~           | 50°C   | Range               | 0~100%RH                              |  |  |  |  |  |  |
| Accuracy           | ±0.5°C@20°C  | ; ≤±1°C@0~50°C   | Accuracy            | Typical ±3% RH@20°C & 20 to<br>80% RH |  |  |  |  |  |  |
| Response<br>time   | ≤10s (20°C,  | slow flow air)   | Response time       | ≤10s (20°C, slow flow air)            |  |  |  |  |  |  |
| PM2.5/PM10         |              |  |                     |                                       |  |  |  |  |  |  |
| Ser                | nsor         | Laser dust sensor, detection particle size 0.3~10µm                                      |                     |                                       |  |  |  |  |  |  |
| D.                 |              | PM2.5: 0~500 ug/m³, with a particle size of 0.3~2.5 $\mu$ m                              |                     |                                       |  |  |  |  |  |  |
| Rai                | nge          | PM10: 0~600 ug/m³, particle size 0.3~10μm  |                     |                                       |  |  |  |  |  |  |
| Precision/c        | consistency  | PM2.5: ±10 μg/m³@0~100 ug/m³, ±10%FS@100~500/600 μg /m³, @25°C                           |                     |                                       |  |  |  |  |  |  |
| Resolut            | ion ratio    | 1 μg /m³   |                     |                                       |  |  |  |  |  |  |
| Respon             | ise time     | Continuous measurement mode with single response time <1s, integrated response time <10s |                     |                                       |  |  |  |  |  |  |
| CO2                |              |  |                     |                                       |  |  |  |  |  |  |
| Ser                | nsor         | The NDIR sensor, with the ABC self-check function  |                     |                                       |  |  |  |  |  |  |
| Rai                | nge          | 0~5000 ppm   |                     |                                       |  |  |  |  |  |  |
| Accu               | uracy        | (±40 ppm±3%MV)ppm  |                     |                                       |  |  |  |  |  |  |
| Respon             | ise time     | 2 mins   |                     |                                       |  |  |  |  |  |  |
|                    | VO           | C  | F                   | Formaldehyde                          |  |  |  |  |  |  |
| Rai                | nge          | Metal oxide<br>semiconductor gas<br>sensor   | Sensor              | Electrochemical-type<br>gas sensor    |  |  |  |  |  |  |
| Rai                | nge          | 0~2 ppm  | Range               | 0~1 ppm                               |  |  |  |  |  |  |
| Resolut            | ion ratio    | lppb   | Accuracy            | +10%FS@25°C                           |  |  |  |  |  |  |
| Response time      |              | First power-up for 1<br>hour; pre-heat for<br>3mins                                      | Response time (1    | (120s                                 |  |  |  |  |  |  |
| General Parameters |              |  |                     |                                       |  |  |  |  |  |  |
| Power Sup          | ply Voltage  | 12~36VDC/24VAC+20%   |                     |                                       |  |  |  |  |  |  |
| Output             | t Signal     | Isolation/non-isolated RS485   |                     |                                       |  |  |  |  |  |  |
| Work Env           | rironment    | 0~50°C & 0~95%RH(no condensation)  |                     |                                       |  |  |  |  |  |  |
| Storage Te         | emperature   | -20~60°C & 0~95%RH (no condensation)   |                     |                                       |  |  |  |  |  |  |
|                    |              |  |                     |                                       |  |  |  |  |  |  |



| Display and Buttons  | Indoor type can be optional  |  |  |  |  |
|----------------------|--|--|--|--|--|
|                      | Indoor type can be optional  |  |  |  |  |
| LED pilot lamp       | Light indicate: Green: good air quality; Yellow: air quality is generally; Red: poor air quality |  |  |  |  |
| Levels of Protection | IP30   |  |  |  |  |
| Way to Install       | Indoortype, Top-suction type   |  |  |  |  |
| Case Material        | Indoor type: PC Top-suction type: ABS  |  |  |  |  |
| Weight               | Indoor type: 148g Top-suction type: 235g   |  |  |  |  |

## **Selection Code:**

|        | Code and description |                                  |                  |              |         |            |           | Remark             |         |                        |                  |
|--------|----------------------|----------------------------------|------------------|--------------|---------|------------|-----------|--------------------|---------|------------------------|------------------|
| TxAQ84 |                      | ALL-IN-ONE AIR QUALITY TRANDUCER |                  |              |         |            |           |                    |         | Model                  |                  |
|        | 1                    | Indoor type                      |                  |              |         |            |           |                    |         | Installation           |                  |
|        | 2                    |                                  | Top suction type |              |         |            |           |                    |         | method                 |                  |
|        |                      | 1                                | N/A              |              |         |            |           |                    |         | Tomps.PU               |                  |
|        |                      | 2 Temp&RH                        |                  |              |         |            |           |                    | Temp&RH |                        |                  |
|        | 1 N/A                |                                  |                  |              |         |            |           | CO2                |         |                        |                  |
|        |                      |                                  | 2                | CO2          |         |            |           |                    |         | CO2                    |                  |
|        |                      |                                  |                  | 1            | N/A     |            |           |                    |         | PM                     |                  |
| 2      |                      |                                  |                  |              |         | PM2.5&PM10 |           |                    |         |                        | ΓIVI             |
|        |                      |                                  |                  |              | 1 N/A   |            |           |                    |         | VOC                    |                  |
|        |                      |                                  |                  |              | 2       | 2 VOC      |           |                    |         | VOC                    |                  |
|        |                      |                                  |                  |              |         | 1          |           |                    |         | N/A                    | Formaldehyde     |
|        |                      |                                  |                  |              |         | 2 нсно     |           |                    |         | Torrididerryde         |                  |
|        |                      |                                  |                  |              |         |            | RSN<br>RS | Non-isolated RS485 |         | Non-isolated RS485     | Output           |
|        |                      |                                  |                  |              |         |            |           |                    | Is      | solation type of RS485 | Output           |
|        |                      |                                  |                  |              |         |            |           | 1                  |         | Without display        | Display          |
|        | 2 With display       |                                  |                  | With display | Display |            |           |                    |         |                        |                  |
|        |                      |                                  |                  |              |         |            |           |                    | 1       | None                   | Indication light |
|        | 2 With 3-color LED   |                                  |                  |              | gin     |            |           |                    |         |                        |                  |