Air Quality Transmitter

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SAQ 360D

7 Key Air Quality Parameters In One Device
MODBUS RTU Output with Optional LCD Display
Sleek Wall Mountable Design, 10 to 36 VDC Supply
IP30 Protection Class

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Applications

Commercial Buildings
Monitoring HVAC Efficiency, Improving Occupant Comfort, and Indoor Air Quality (AQ) Alerts

Educational Institutes
Ensuring Safe AQ in Classrooms, Libraries, and Lecture Halls

Hospitals & Clinics
AQ Control in Waiting Areas, Wards, and Consultation Rooms

Office Spaces
Real-time AQ Monitoring to Support Energy-efficient Ventilation

Smart Homes
Integration with Home Automation Systems for Healthy Indoor Living

Retail Stores & Malls
Ensuring Clean Air in Enclosed Customer-facing Environments

Airports & Stations
Maintaining AQ in Lounges, Terminals, and Common Areas

Salient Features

- Measures Key Indoor Air Quality Indicators Including PM2.5, PM10, CO_2, VOC, Temperature, Humidity, and Formaldehyde (HCHO) - all in One Device
- Uses Advanced Laser Scattering and Electrochemical Sensing Technology for Reliable Real-time Measurements
- Seamless Integration with Building Automation Systems and Centralized Data Acquisition Platforms
- Real-time Detection and Reporting of Air Quality Changes for Proactive Environmental Control
- Long-life Sensors with Stable Performance and Minimal Recalibration Needs
- LED Status Indicators or External Display Options for Local Alerting
- Sleek, Wall-mountable Design with Durable Housing Suited for Indoor Environments
- IP30 Protection Class
- Operates on 12 to 36 VDC with Over-Voltage & Reverse Polarity Protection

General Information

Product Type	Air Quality Transmitter
Ordering Code	**SAQ 360D-** ☐ - ☐

Display
0 : No Display
1 : LCD Display

RS485 Output
0 : Non-isolated
1 : Isolated

Example : SAQ 360D-1-0
With LCD Display & Non-Isolated RS485 Output

Quantity	1 Unit
Accessories	Wall Mounting Screws & Plastic Expansion Pipes

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General Specifications

Power Supply Voltage	12 to 36 VDC
Output Signal	Non-isolated RS485 MODBUS RTU (Isolation on Request)
Working Environment	0 to 50 °C & 0 to 95 %RH (No Condensation)
Storage Temperature	-20 to +60 °C & 0 to 95 %RH (Non-condensing)
Display & Buttons	Optional LCD with 3 Tactile Keys
Air Quality Status LED	● Green : Good ● Yellow : Average ● Red : Poor
Protection Class	IP30
Mounting	Wall
Case Material	Polycarbonate (PC)
Weight	150 Grams Max.

Parameter : %RH (Relative Humidity)

Sensor	Digital Humidity Sensor
Range	0 to 100 %RH
Accuracy	Typical ± 3% RH @ 20 °C & 20 to 80 %RH
Response Time	≤ 10S (20 °C, Slow Air Flow)

Parameter : Temperature

Sensor	Digital Temperature Sensor
Range	0 to 50 °C
Accuracy	± 0.5 °C @ 20 °C, ≤ ± 1 °C @ 0 to 50 °C
Response Time	10 to 30S (20 °C, Slow Air Flow)

Parameter : PM 2.5 / PM 10

Sensor	Laser Dust Sensor (Detection Particle Size 0.3 to 10 μm)
Range	PM 2.5 : 0 to 500 μg/m³, with a Particle Size of 0.3 to 2.5 μm
	PM 10 : 0 to 600 μg/m³, Particle Size of 0.3 to 10 μm
Precision / Consistency	±10 μg/m³ @ 0 to 100 μg/m³, ±10% FS @ 100 to 500 / 600 μg/m³, @ 25°C
Resolution Ration	1 μg/m³
Response Time	Continuous Measurement Mode with Single Response Time <1S, Integrated Response Time <10S

Parameter : CO_2

Sensor	NDIR Sensor with ABC Self-Check Function
Range	0 to 5000 ppm
Accuracy	± 40 ppm ± 3% of Measured Value
Response Time	2 Minutes

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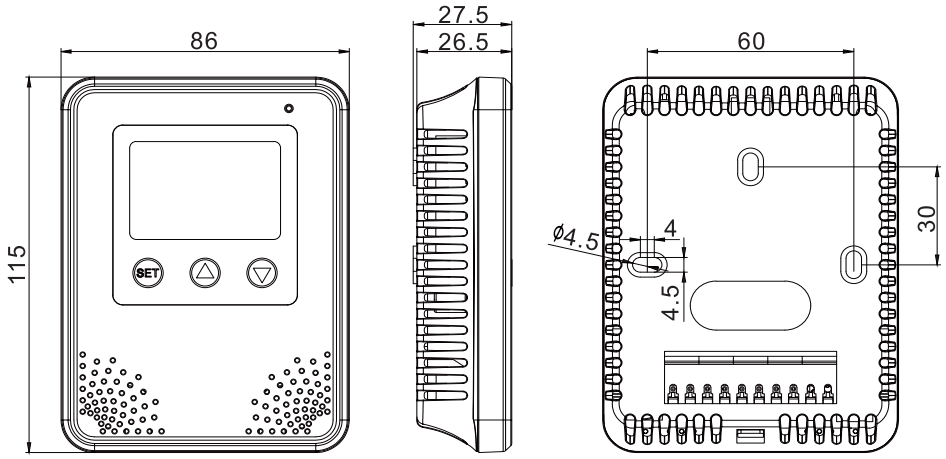
Parameter : VOC (Volatile Organic Compounds)

Sensor	Metal Oxide Semiconductor Gas Sensor
Range	0 to 2 ppm
Resolution Ratio	1 ppb (parts per billion)
Preheating Time	First Power-up for 1 Hour; Pre-heat for 3 Min

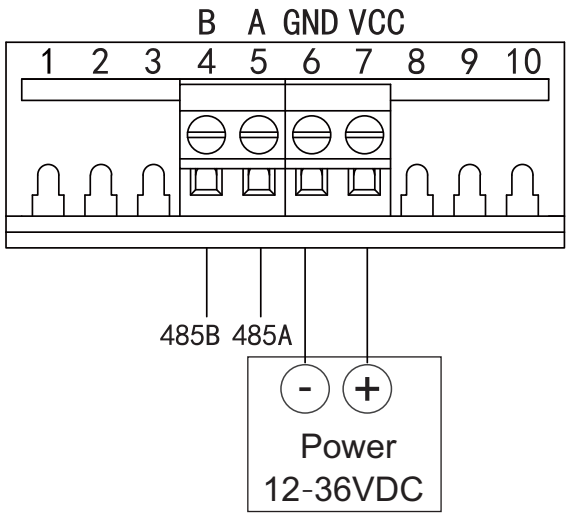
Parameter : Formaldehyde (HCHO)

Sensor	Electrochemical Type Gas Sensor
Range	0 to 1 ppm
Accuracy	± 10 % FS @ 25 °C
Response Time	<120 S

Dimensions (mm)

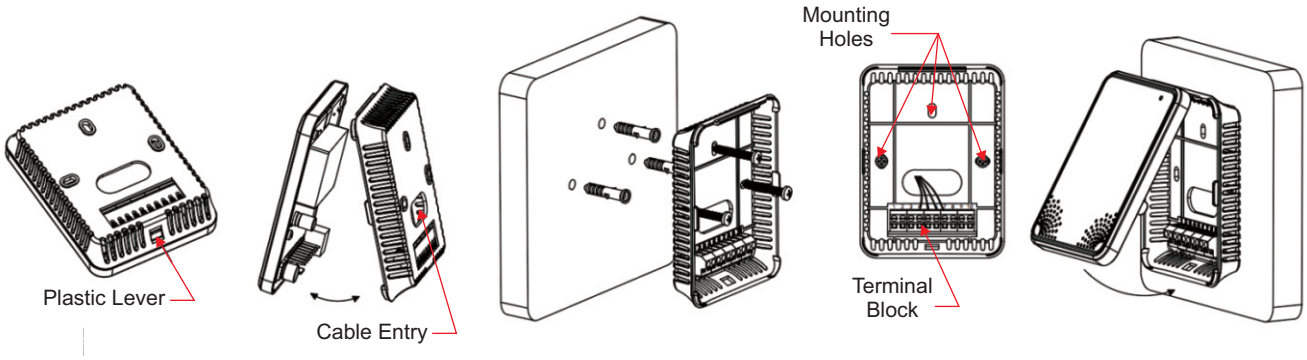


Wiring Instructions



Installation

Fig. 1 Fig. 2 Fig. 3 Fig. 4 Fig. 5



1. Press the plastic lever and pull the back cover apart as shown in figures 1 & 2.
2. Make the electrical connection to the 4-terminal block fitted on the inside of the back cover. Refer the Wiring Instructions diagram. Pass the cable from the cable entry (figure 2).
3. Drill 3 holes in the wall or the switch box where the transmitter is to be mounted. Insert the plastic expansion pipes in the drilled holes. Mount the back cover using the fixing screws. Refer figures 3 & 4.
4. Press fit the transmitter front (containing the sensors and the electronics) to the back cover. Refer figure 5.

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