

Air Quality Monitor

Model No: SENSE-AM200

Data Sheet



Item	Information
Measured Parameters	Temperature + Relative Humidity + Differential Pressure + PM2.5 + PM5 + PM10 + CO ₂
Sensor / Measurement Code	TRH + DP + PM + CO ₂
Product Platform	SENSE-AM200
Mounting Type	Panel Mount
Document Type	Data sheet
Document Revision	Rev. 1.0

OVERVIEW

The SENSE-AM200 is a panel-mount environmental monitoring platform for temperature, humidity, differential pressure, particulate matter, and CO₂, with communication and cloud-ready capabilities for cleanroom and indoor air quality monitoring.

Features

- Panel-mount construction for clean room and controlled-environment monitoring panels.
- Integrated monitoring of temperature, relative humidity, differential pressure, particulate matter (PM2.5 / PM5 / PM10) and CO₂ concentration.
- Reverse polarity and incorrect wiring protection.
- Differential pressure measurement range: -500 Pa to +500 Pa.
- Integrated particulate matter monitoring for PM2.5, PM5 and PM10.
- Integrated CO₂ concentration measurement up to 10,000 ppm.
- Designed for clean rooms, laboratories, pharmaceutical areas and other controlled environments requiring environmental, particulate and CO₂ monitoring.
- 4.3" TFT LCD color display with keypad interface.
- RS485 Modbus RTU communication for PLC, DCS, BMS, SCADA and data logger integration.
- Modbus TCP/IP communication support through Ethernet interface.
- PoE (Power on Ethernet) support.
- Ethernet and Wi-Fi internet connectivity depending on model variant.
- Cloud protocol support: MQTT(S), HTTP(S).
- Default compatibility with Linked IoT SCADA platform.
- Relay output for external alarm or interlock. No 4-20 mA analog output is provided.
- Local buzzer and top alarm indicator/lens for alarm annunciation.
- Continuous 24x7 monitoring operation.
- Compact construction suitable for panel mounting.

Applications

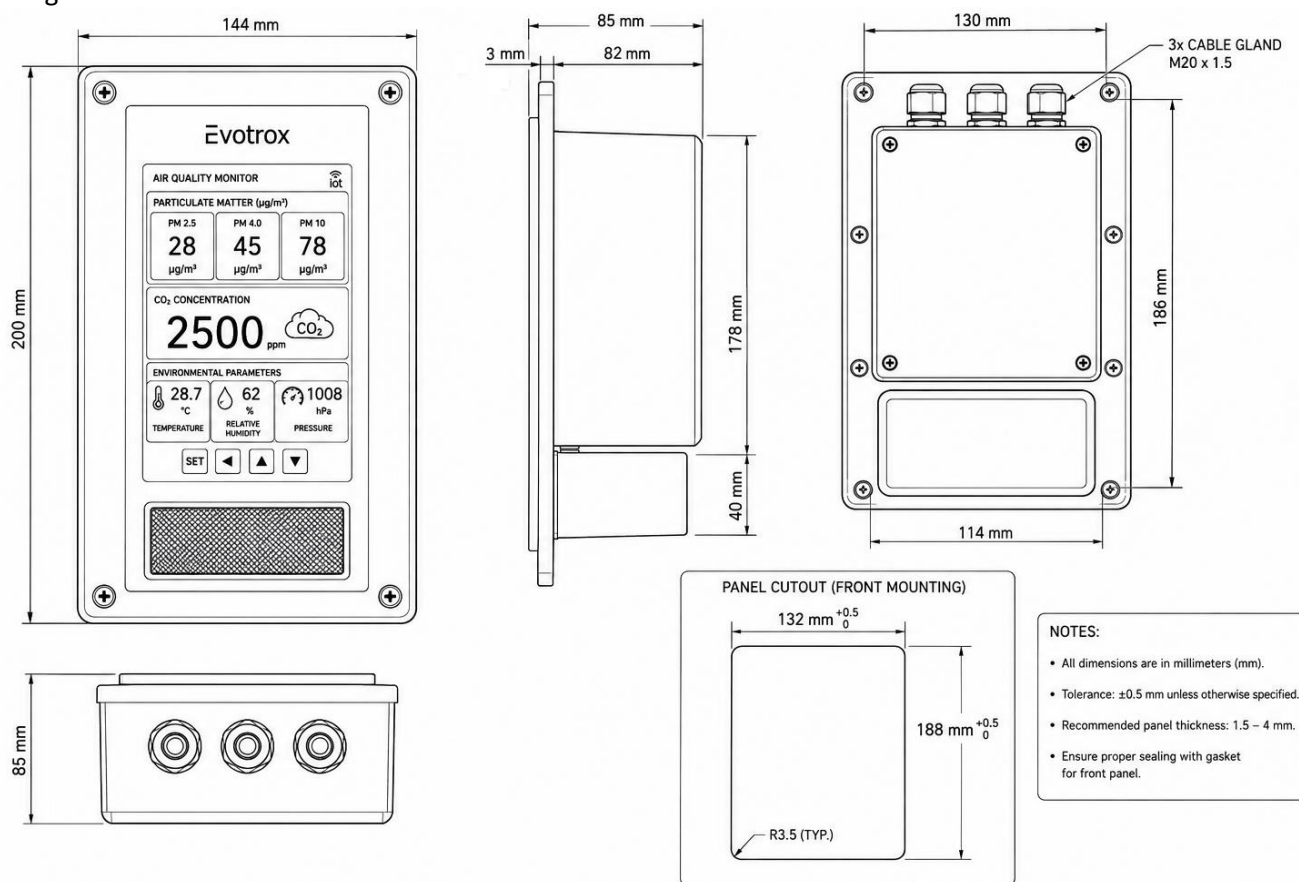
- Pharmaceutical clean rooms and controlled production areas requiring environmental and particle monitoring
- Hospital clean rooms, operation theatres, isolation areas and sterile environments
- Laboratories, testing rooms and research facilities requiring temperature, RH, pressure, particle and CO₂ monitoring
- Clean room pressure cascade, room-to-room differential pressure and airborne particulate monitoring
- HVAC and air-handling systems serving controlled environments, including indoor air quality verification
- Pharmaceutical warehouses and environmental monitoring systems
- Electronics, semiconductor and precision manufacturing clean areas
- Food, biotechnology and controlled process rooms
- Building management and environmental monitoring panels with CO₂ and air-quality supervision
- SCADA, BMS, PLC and IoT-based clean room monitoring systems

TECHNICAL SPECIFICATIONS

Parameter	Specification
Sensor Technology	Capacitive T+RH sensing + differential pressure sensing + particulate-matter sensing + CO ₂ sensing
Measured Parameters	Temperature + Relative Humidity + Differential Pressure + PM2.5 + PM5 + PM10 + CO ₂
Temperature Range	-20 – 80 °C
Humidity Range	0 – 100 % RH
Temperature Accuracy	±0.3°C Typical
Humidity Accuracy	±2% RH Typical
Differential Pressure Range	-500 Pa to +500 Pa
Display	4.3" TFT LCD color display
User Interface	Keypad for device configuration
Typical Power Supply	24 VDC
Power Supply Range	12 – 30 VDC
PoE	PoE support through Ethernet interface, depending on ordered variant
Additional Outputs	Relay Output
Communication	RS485 Modbus RTU, Ethernet Modbus TCP/IP
Cloud Protocols	MQTT(S), HTTP(S)
Internet Connectivity	Ethernet / Wi-Fi depending on model variant
Storage Temperature	As per final approved product / sensor datasheet
Particulate Matter	PM2.5 / PM5 / PM10
Particulate Range / Accuracy	As per final approved particulate sensor datasheet
CO ₂ Measurement Range	0 – 10,000 ppm
CO ₂ Accuracy / Response	As per final approved CO ₂ sensor datasheetS

MECHANICAL DIMENSIONS

The following dimensional drawing provides the mechanical dimensions required for mounting and installation planning.



ORDERING INFORMATION

Ordering format: SENSE - AM200 - I1

Code Segment	Meaning
SENSE	Product Family
AM200	Product Model
I1 / L1	Network / Expansion Variant
—	No filter option required for standard panel-mount model

CONTACT INFORMATION

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