Modular Lorawan IOT Sensor Manufacturer

Product Sheet

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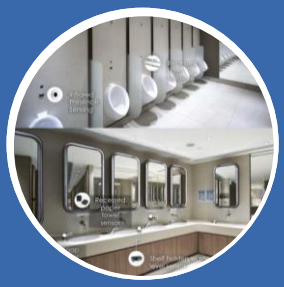
2026

AEM-102



IoT Platform





Massive Facilities





LoRaWAN® Sensors

LoRaWAN®

atomsenses

LoRaWAN®

LoRaWAN 3-in-1 Temp / Humidity / CO2 Sensor

Temp / Humidity / CO2

Outdoor Air Quality Monitoring

SKU: AEM-102



The Atomsenses AEM-102 is a LoRaWAN CO2 sensor using NDIR technology, with integrated temperature and humidity sensing, supplied in an outdoor shelter. A louvred radiation shield keeps the measurement representative of true ambient air.

It compensates for external heat sources without extra components and works with any LoRaWAN gateway.

LoRaWAN Communication

Any standard LoRaWAN gateway; OTAA / ABP Class A

Outdoor Shelter & Mounting

Louvred radiation shield on pole or wall bracket

NDIR CO2 Measurement

Optical path with temperature compensation

Supports ODM & OEM

- Technology: LoRaWAN®; OTAA / ABP, Class A
- Frequency: EU868/US915/AU915/KR920/AS923-1&2&3&4
- Tx Power: 16 dBm (868 MHz) / 22 dBm (915 MHz) / 19 dBm (470 MHz)
- Sensitivity: -137 dBm @ 300 bps
- Temperature: -20~70°C; 0.1°C; ±0.3°C (0~70°C), ±0.6°C (-20~0°C)
- Humidity: 0~100%RH; 0.5%RH; ±3%RH (10~90%RH)
- CO2: 400~5000PPM; 1PPM; ±(50 ppm + 5% of reading)
- Power Supply: 4 × 4000 mAh ER18505 Li-SOCl2
- Enclosure: IP30 sensor; IP65 with shelter
- Dimension: 98 × 98 × 29.5 mm; Pole or wall mount

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Specification

LoRaWAN®

Wireless Transmission		
Technology		LoRaWAN®
Frequency		EU868/US915/AU915/KR920/AS923-1&2&3&4
Tx Power		16 dBm (868 MHz) / 22 dBm (915 MHz) / 19 dBm (470 MHz)
Sensitivity		-137 dBm @ 300 bps
Mode		OTAA / ABP Class A
Sensors Specification		
Temperature	Range	-20°C to +70°C
	Accuracy	0°C to +70°C (±0.3°C), -20°C to 0°C (±0.6°C)
	Resolution	0.1°C
Humidity	Range	0% to 100% RH
	Accuracy	10% to 90% RH (±3%), below 10% and above 90% RH (±5%)
	Resolution	0.5% RH
Carbon Dioxide (CO2)	Range	400 to 5000 ppm
	Accuracy	±(50 ppm + 5% of reading)
	Resolution	1 ppm
Physical Characteristics		
Power Supply		4 × 4000 mAh ER18505 Li-SOCl2 replaceable batteries
Battery Life		Up to 5 years
Operating Temperature		-20°C to +60°C
Relative Humidity		0% to 95% (non-condensing)
Ingress Protection		IP30 (sensor) / IP65 (with outdoor shelter)
Dimension		98 × 98 × 29.5 mm
Installation		Pole Ø25–50 mm or wall bracket
Outdoor Enclosure & Protection		
Enclosure Type		Louvred radiation shield, stackable plates
Housing Material		UV-stabilised ASA, white; stainless fixings
Shelter Protection		Screens sensing element from direct sun, rain and wind
Mounting		Ø25–50 mm pole or wall bracket; 2 × M12 cable glands



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About Q-Vision Technology Limited

- Established in 2019, with its headquarters located in Hong Kong and backed by HK based consortium
- R&D Centers in Shenzhen, Guangdong and Changsha, Hunan
- Atomsenses is a trademark owned by Q-Vision for the company's IoT sensor products including Air Quality LoRaWAN Sensors
- Our vision is to create healthier indoor spaces and future cities that enhance well-being and productivity