



sensorbee

Sensorbee Air Quality Front Module

The Air Quality Front Module includes multiple sensors for measuring particles, temperature, humidity, air pressure, VOCs, and NOx. An ambient noise sensor, measured in dBA, can be activated with a separate license.



SB3516 – Air Quality Front Module

Particle Sensor:

Type: Optical particle counter

Mass Concentration Range:

0 - 1000 $\mu\text{g}/\text{m}^3$

Mass Concentration Size Range:

PM1.0: 0.3 - 1.0 μm PM2.5: 0.3 - 2.5 μm

PM4: 0.3 - 4.0 μm PM10: 0.3 - 10.0 μm

Mass Concentration Precision:

PM1.0 & PM2.5:

0-100 $\mu\text{g}/\text{m}^3$: $\pm 5\mu\text{m} + 5\%$, 100-1000 $\mu\text{g}/\text{m}^3$: $\pm 10\%$

PM4 & PM10:

0-100 $\mu\text{g}/\text{m}^3$: $\pm 25\mu\text{m}$, 100-1000 $\mu\text{g}/\text{m}^3$: $\pm 25\%$

Number Concentration Range:

0 - 3000 μm

Number Concentration Size Range:

PM0.5: 0.3 - 0.5 μm PM1.0: 0.3 - 1.0 μm

PM2.5: 0.3 - 2.5 μm PM4: 0.3 - 4.0 μm

PM10: 0.3 - 10.0 μm

Number Concentration Precision:

PM0.5, PM1.0 & PM2.5:

0-1000#/ m^3 : $\pm 100\#/\text{cm}^3$, 1000-3000#/ m^3 : $\pm 10\%$

PM4 & PM10:

0-1000#/ m^3 : $\pm 250\#/\text{cm}^3$, 1000-3000#/ m^3 : $\pm 25\%$

Temperature Sensor:

-40 $^{\circ}\text{C}$ to 60 $^{\circ}\text{C}$ ± 0.3 $^{\circ}\text{C}$

Humidity Sensor:

0 - 100 %RH ± 3 %RH

VOC:

0 - 1000 ppm (VOC Index 0 - 500)

NOX:

0 - 10000 ppb (NOX Index 0 - 500)

Pressure:

300 - 1250 hPa ± 0.5 hPa

Noise Meter (extra license required):

20 Hz - 10 kHz: 55 - 100 dBA ± 4 dBA

Module:

Dimensions: 55 x 60 x 20 mm

Weight: 40 gram

Enclosure: Polyamide

Operating Temperature: -10 $^{\circ}\text{C}$ to +60 $^{\circ}\text{C}$

Operating Humidity: 0 to 95 %RH

Module Operational Life: 2 Years

Sensorbee CO₂ Gas Module



The CO₂ Gas Module features a state-of-the-art solid-state sensor engineered to accurately measure CO₂ concentrations.

These modules come pre-calibrated for easy replacement and include temperature and humidity compensation through advanced algorithms.

SB3541 – CO₂ Gas Module

Sensor type:

Photoacoustic sensor technology
Carbon Dioxide (CO₂)

Measurement Range:

Maximum 0 ppm – 40000 ppm
Specified Range 400 ppm – 5000 ppm

Measurement Accuracy:

400 ppm – 1000 ppm: $\pm(50 \text{ ppm} + 2.5 \%)$
1001 ppm – 2000 ppm: $\pm(50 \text{ ppm} + 3 \%)$
2001 ppm – 5000 ppm: $\pm(40 \text{ ppm} + 5 \%)$

Dimensions:

45 x 21 x 25 mm

Weight:

8 gram

Enclosure:

Polyamide

Operating Temperature:

-10 °C to +60 °C

Operating Humidity:

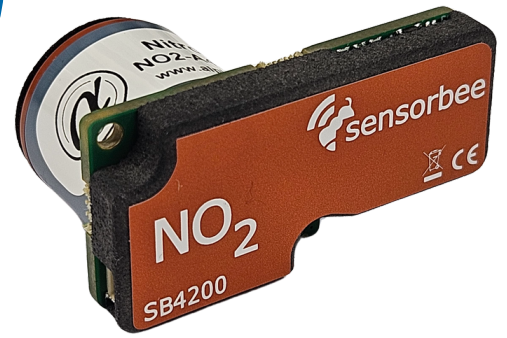
0 to 95 %RH

Module Operational Life:

> 3 years

Sensorbee NO2 Gas Module

The NO2 Gas Module comes with an integrated electrochemical sensor for detecting NO2 levels. The modules are pre-calibrated for easy replacement and include algorithm-based temperature compensation.



SB4200 – NO2 Gas Module

Sensor type:

Electrochemical sensor technology
Nitrogen Dioxide (NO2)

Measurement Range:

Maximum 0 ppb – 20000 ppb
Specified Range 0 ppb – 2000ppb

Typical Accuracy:

0 ppb – 500 ppb: ±5 ppb

Dimensions:

45 x 21 x 25 mm

Weight:

12 gram

Enclosure:

Polyamide

Operating Temperature:

-30 °C to +40 °C

Operating Pressure:

800 hPa – 1200 hPa

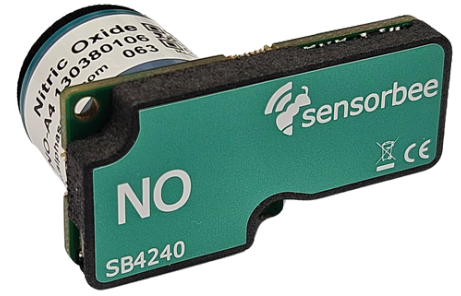
Operating Humidity:

15 to 85 %RH

Module Operational Life:

> 1 Year

Sensorbee NO Gas Module



The NO Gas Module comes with an integrated electrochemical sensor for detecting NO levels. The modules are pre-calibrated for easy replacement and include algorithm-based temperature compensation.

SB4240 – NO Gas Module

Sensor type:

Electrochemical sensor technology
Nitric Oxide (NO)

Measurement Range:

Maximum 0 ppb – 20000 ppb
Specified Range 0 ppb – 2000ppb

Typical Accuracy:

0 ppb – 500 ppb: ± 5 ppb

Dimensions:

45 x 21 x 25 mm

Weight:

12 gram

Enclosure:

Polyamide

Operating Temperature:

-30 °C to +50 °C

Operating Pressure:

800 hPa – 1200 hPa

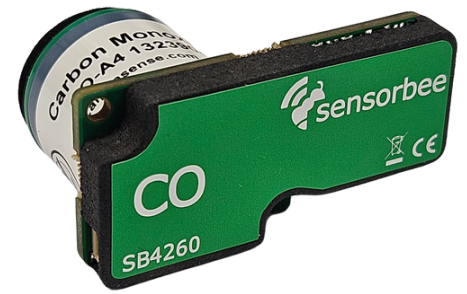
Operating Humidity:

15 to 85 %RH

Module Operational Life:

> 1 Year

Sensorbee CO Gas Module



The CO Gas Module comes with an integrated electrochemical sensor for detecting CO levels. The modules are pre-calibrated for easy replacement and include algorithm-based temperature compensation.

SB4260 – CO Gas Module

Sensor type:

Electrochemical sensor technology
Carbon Monoxide (CO)

Measurement Range:

Maximum 0 ppm – 500 ppm
Specified Range 0 ppm – 10 ppm

Typical Accuracy:

0 ppm – 10 ppm: ± 80 ppb

Dimensions:

45 x 21 x 25 mm

Weight:

12 gram

Enclosure:

Polyamide

Operating Temperature:

-30 °C to +50 °C

Operating Pressure:

800 hPa – 1200 hPa

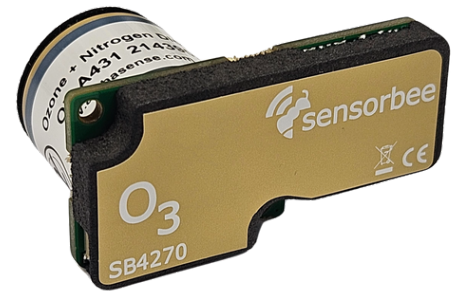
Operating Humidity:

15 to 90 %RH

Module Operational Life:

> 1 Year

Sensorbee O3 Gas Module



The O3 Gas Module comes with an integrated electrochemical sensor for detecting O3 levels. The modules are pre-calibrated for easy replacement and include algorithm-based temperature compensation.

SB4270 – O3 Gas Module

Sensor type:

Electrochemical sensor technology
Ozone (O3+NO2)

Measurement Range:

Maximum 0 ppm – 20 ppm
Specified Range 0 ppb – 500 ppb

Typical Accuracy:

0 ppb – 500 ppb: ±5 ppb

Note:

The sensor is an Oxidizing Gas Sensor designed to measure both O3 and NO2 gases. To isolate the O3 measurement, an additional NO2 sensor (SB4200) is required.

Dimensions:

45 x 21 x 25 mm

Weight:

12 gram

Enclosure:

Polyamide

Operating Temperature:

-30 °C to +40 °C

Operating Pressure:

800 hPa – 1200 hPa

Operating Humidity:

15 to 85 %RH

Module Operational Life:

> 1 Year

Sensorbee SO₂ Gas Module



The SO₂ Gas Module comes with an integrated electrochemical sensor for detecting SO₂ levels. The modules are pre-calibrated for easy replacement and include algorithm-based temperature compensation.

SB4250 – SO₂ Gas Module

Sensor type:

Electrochemical sensor technology
Sulfur Dioxide (SO₂)

Measurement Range:

Maximum 0 ppm – 50 ppm
Specified Range 0 ppb – 500 ppb

Typical Accuracy:

0 ppb – 500 ppb: ±15 ppb

Dimensions:

45 x 21 x 25 mm

Weight:

12 gram

Enclosure:

Polyamide

Operating Temperature:

-30 °C to +50 °C

Operating Pressure:

800 hPa – 1200 hPa

Operating Humidity:

15 to 90 %RH

Module Operational Life:

> 1 Year

Sensorbee Rain Sensor

The Rain Sensor offers reliable rain and precipitation tracking through its tipping bucket mechanism. This ensures consistent measurement of rainfall intensity. Its robust design enhances durability and allows it to withstand various environmental conditions.

The rain sensor seamlessly integrates with the Sensorbee Pro series, connecting effortlessly through the external sensor port.



SB3631 – Rain Sensor

Orifice area:

Ø200 cm²

Resolution:

0.2 mm

Accuracy:

±2 %

Capacity:

2.4 mm rain per minute

Leaf protection grid:

Included

Bird protection spikes:

Included

Spirit level:

Integrated

Dimensions:

260 x 165 x 165 mm

Weight:

520 gram

Operating Temperature:

0°C to +60 °C

Operating Humidity:

0 to 100 %RH

Mounting bracket

universal pole bracket

2x metal hose clamp included

Module Operational Life:

> 2 Year

Sensorbee Wind Speed & Direction Sensor



The ultrasonic wind sensor delivers precise measurement of both wind speed and direction using advanced ultrasonic technology. With no moving parts, this sensor offers long-lasting performance and minimal maintenance.

The wind sensor seamlessly integrates with the Sensorbee Pro series, connecting effortlessly through the external sensor port.

SB3611 – Wind Speed & Direction Sensor

Range:

0.12 to 40 m/s

Sensitivity:

0.25 m/s

Wind resolution:

0.05 m/s

Wind accuracy:

0.12 m/s

Direction resolution:

1°

Direction accuracy:

± 1.5°

Dimensions:

330 x 65 x 230 mm

Weight:

450 gram

Operating Temperature:

-15 °C to +55 °C

Operating Humidity:

0 to 100 %RH

Mounting bracket

universal wall / pole bracket

2x metal hose clamp included

Module Operational Life:

> 2 Year

Sensorbee Ambient Noise License



Compatible with both Sensorbee Air Pro and Sensorbee Air Lite units, this license provides the capability for ongoing monitoring of ambient noise levels, measured in dBA (A-weighted decibels). This ensures that you have a comprehensive view of your environment's auditory landscape, alongside air quality metrics.

SB1101 – Ambient Noise License

The Sensorbee Ambient Noise License is a cutting-edge software upgrade tailored for the Sensorbee Air Pro and Lite units.

This license enhances the capability of your existing Sensorbee Pro or Lite unit to continuously measure, analyze, and report ambient noise levels, in addition to air quality metrics.

The license remains valid for the entire lifetime of your Pro or Lite unit, even when sensor modules are replaced or upgraded.

We offer three convenient methods for purchasing and installing our license tokens:

1. Order your unit with the noise license included; the license will be pre-installed at the factory and will automatically activate if you are using Sensorbee Cloud services.
2. Enable the license directly through Sensorbee Cloud services.
3. Receive a license token generated specifically for your base unit and manually install it using a terminal.

The accuracy of the ambient noise sensor varies by product.

For detailed information, please refer to the product specifications for Sensorbee Pro Front Module as well as Sensorbee Lite.