



**BRAMC BR-CON Series  
Ceiling Type Air Quality Monitor**



Model: BR-CON  
Manufacture warranty: 12 months

Model	CON- P	CON- P C2	CON- PT C2	CON- PTH C2	CON- PT C1C2	CON- PTH C1C2
PM1.0	•	•	•	•	•	•
PM2.5	•	•	•	•	•	•
PM10	•	•	•	•	•	•
HCHO				•		•
TVOC			•	•	•	•
CO					•	•
CO2		•	•	•	•	•
Temp	•	•	•	•	•	•
RH	•	•	•	•	•	•

**Product overview**

BR-CON series air quality monitor is the professional indoor air quality testing equipment, can measure the pollutant concentrations of PM2.5, PM10, TVOC volatile organic compounds, CO2.

It's suitable for all kinds of indoor environment, such as office, classroom, machine room, bedroom, etc., can combine with fresh air device and air purifier.

The data can be transferred to the server via RS485, 433, WIFI communication, to realize project monitoring, fresh air and purification device linkage, smart home and other project requirements.



## Product Features

- Multiple measurement purposes: PM2.5, PM10, TVOC, HCHO, CO, CO<sub>2</sub>, temperature, humidity.
- Power source: 110-240V/AC or 8-30V/DC/AC
- Support multiple communication protocols: RS485/GPRS/RF433/WiFi
- Support MODBUS communication protocol and free-protocol
- BR-Con series products can be integrated with 86 box, support RS485, wireless 433 protocols. Simplified wiring.
- Can be customized to accommodate specific request. Such as monitor sulphur dioxide and oxygen level.
- Support mobile app, upper computer and web end remote control. Intelligent control by Internet.

## Product Specifications

- PM2.5 and PM10 using laser scattering measurement method
  - Measuring Range: 0.3 to 10um
  - Measuring Threshold: 0 to 999µg /m<sup>3</sup>
  - Counting Effectiveness: 50% @ 0.3um, 98% @ ≥0.5um
  - Accuracy: ±10%
  - Measuring Volume: 0.1 L
  - Response Time: ≤10 secs
- TVOC using semiconductor sensor method
  - Measuring range: 0 to 2.47mg /m<sup>3</sup> (Milligram)
  - Accuracy: ±15%
  - Response Time: <5 sec
  - Warm-up Time: 15 mins

- Carbon Dioxide (CO<sub>2</sub>) using NDIR measurement method
  - Measuring range: 0 ~ 5000ppm
  - Temperature Coefficient: 0.2%FS/°C
  - Temperature Calibration: Auto
  - Measuring Accuracy: 22°C(72°F) ±45ppm ±3%
  - Stability: Within the life cycle (15 yrs), less than 2% of the full measuring threshold
  - Calibration Cycle ABC Logic self-calibration (No user input required)
  - Nonlinear: <1%FS
  - Pressure Coefficient: 0.13%mmHg input
  - Reaction Time: Less than 2 minutes for 90% of change
  - Refresh Rate: 2 secs
  - Warm-up Time: < 2min (Operation), 10min (Maximum Accuracy)
  - Resolution: 1ppm
- Carbon Monoxide (CO) using Electrochemical Measuring Method
  - Measuring Range: 0 ~ 500ppm
  - Measuring Accuracy: 0.1ppm
  - Warm-up Time: ≤3 min
  - Reaction Time: ≤ 60 sec
  - Recovery Time: ≤ 60 sec
  - Working Humidity: 15% ~ 65% RH



- Formaldehyde (HCHO) using Electrochemical Measuring Method
  - Measuring Range: 0 ~ 5 mg/m<sup>3</sup>
  - Measuring Accuracy: ≤0.01 mg/m<sup>3</sup>
  - Warm-up Time: ≤3 min
  - Reaction Time: < 30 sec
  - Working Temperature: 0 ~ 50°C
  - Working Humidity: 15% ~ 90% RH
- Temperature
  - Working Range: 0 to 99°C
  - Resolution: 1°C
  - Accuracy: ±1°C
  - Repeatability: ±1°C
  - Response Time: 5 secs
  - Long Time Drifting: <0.04°C/yr
- Relative Humidity
  - Working Range: 0 to 100% RH
  - Resolution: 1% RH
  - Accuracy: ±2% RH
  - Repeatability: ±1% RH
  - Lag: ±1% RH
  - Nonlinear: <0.1% RH
  - Response Time: 8 secs
  - Long Time Drifting: <0.5% RH/yr
- Work Status Display: 3 indicator light combination display
- Power Consumption: 3 to 5W (depend on the number of parameters)
- Power Supply: 8-30VDC / 110-230VAC, 50/60HZ
- Cable Entry: RS485 Screw Terminal 8-pins Block
- Housing Material: ABS
- Overall Dimensions: DIA 170 x H 50mm
- Net Weight: 380g





**Wiring Standard:** Cross cut area < 1.5mm<sup>2</sup>

**Comm Port:** 8 ports connector

**Communication Interface:**

- 2 ways RS485, RS485 used as the main MODBUS station to communicate with the integrated face plate;
- 1 ways RS485 used as the MODBUS sub-station for long range data transfer
- 433Mhz wireless (only used for integrated face plate with control module) **(Optional)**

**Environment for use**

- Temperature range: 0 to 50 °C
- Humidity range: 0 to 80%RH
- Pressure: 1 standard pressure
- Storage Temperature: -10 to 50 °C



**8 High-precision sensors, industrial configuration**

Testing PM1.0, PM2.5, PM10, TVOC, CO<sub>2</sub>, CO, Temp, Humi, HCHO, Ozone

Real multi-functional, all-round monitoring

