

2JCIE-BU

Environment Sensor (USB Type)



Sense a variety of environmental information

- Connects to a network via USB or Bluetooth® to enable the sending of measurement data
- Using OMRON's unique and innovative algorithm, enables highly accurate determination of earthquakes based on vibrational acceleration
- Enables continuous monitoring of room air quality using a VOC sensor



Note: Markings may differ on the actual product.



Refer to Safety Precautions on page 3.

Ordering Information

● Main unit

Model	Communication Interface	Output data	Minimum packing unit (Unit: pcs)	Countries/Regions to which wireless standard applies
2JCIE-BU01	Bluetooth® low energy USB communication	Temperature, Humidity, Light, Barometric pressure, Sound noise, 3-axis acceleration *1, eTVOC *2, Discomfort index *3, Heat stroke warning level *3, Vibration information *1 (No. of earthquakes, No. of vibrations, SI value *4)	1	Japan, US, Canada, EU, UK, China, Hong Kong, India, Singapore, South Korea

● Accessory (sold separately)

The filter cap protects the Environment Sensor (USB Type) from airborne dust/mist, deodorants and air fresheners used in the general household environment, and substances generated by cooking and smoking. Install the product on the body of the environment sensor.

Type	Model
Filter cap	2JCIE-BU01-FL1

Specifications

Ratings

Item	Specification
Power Supply	5 V (USB power supply)
Sensors	Temperature, Humidity, Light, Barometric pressure, Sound noise, 3-axis acceleration *1, eTVOC *2
Interface	Bluetooth® low energy (Bluetooth® v5.0)*5, USB communication (USB2.0)
Communication range	Approx. 10 m *6
Operating Temperature	-10 to 60°C
Operating Humidity	30 to 85%RH
Dimensions	Approx. 29.1 × 14.9 × 7.0 mm
Weight	Approx. 2.9 g
Absolute maximum ratings	Power supply -0.3 to 5.5 V
Absolute maximum ratings	Output current Max. 100 mA
Absolute maximum ratings	Temperature -20 to 70°C
Recommended operating condition	Power supply 4.75 to 5.25 V

Characteristics

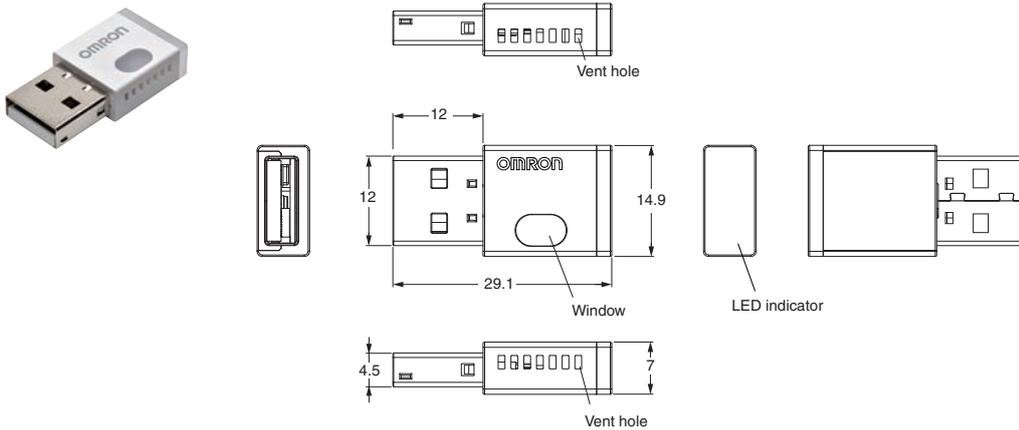
Item	Measurable range	Accuracy (Vcc = 5.0 V, Ta = 15 to 35°C if not specified) *7
Temperature	-10 to 60°C	±2°C
Humidity	30 to 85%RH	±5%RH
Light	10 to 2000 lx	±100 lx
Barometric pressure	700 to 1100 hPa	±4 hPa
Sound noise	40 to 94 dB	For reference *8
3-axis acceleration	-1960 to 1960 gal	For reference *1, *8
eTVOC	0 to 29206 ppb	For reference *2, *8, *9

- *1. 3-axis acceleration values can only be obtained in the specified operation mode. For details, refer to the User's Manual.
- *2. eTVOC (equivalent Total Volatile Organic Compounds) refers to the total concentration of volatile organic compounds in a room environment. Output TVOC values will be higher or lower depending on the type of volatile organic compound. Also, if continuously operated in high-temperature and high-humidity environments, sensitivity for eTVOC values may decrease.
- *3. Information for heat stroke and discomfort index are only guidelines to be used for air conditioning and physical condition management. An individual difference and physical condition will greatly affect an individual feeling. Sensor output is not to be used for determining the presence of symptoms. Use only as a guideline. Warning levels for heat stroke may not be the same as those issued by public institutions.
- *4. SI (Spectral Intensity) values corresponds to the destructive energy seismic motions exert on a structure.
- *5. The Bluetooth® word mark and logos are registered trademarks owned by Bluetooth SIG, Inc. and any use of such marks by OMRON Corporation is under license.
- *6. Communication distance may vary according to obstacles between the communication equipment, radio wave conditions.
- *7. Performance values are obtained based on the various conditions of individual tests, and do not guarantee the values obtained under combined conditions for rated values and performance values.
- *8. Reference output values are provided for reference only, and do not guarantee that operation will always take place normally within that range.
- *9. In a VOC environment outside the detection range, the output values of eTVOC and eCO2 may output -32767.

Dimensions

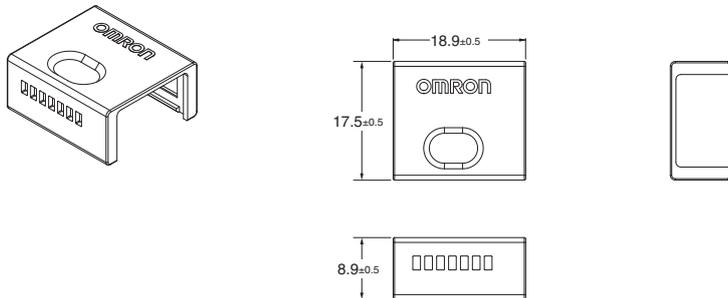
(Unit: mm)

● Main unit 2JCIE-BU01



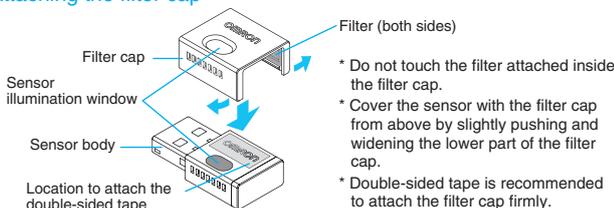
CAD Data

● Accessory (filter cap) 2JCIE-BU01-FL1

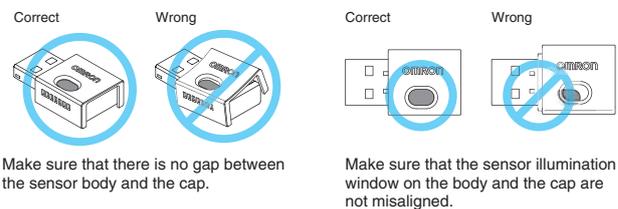


CAD Data

Attaching the filter cap



Precautions when attaching the filter cap



Safety Precautions

To assure the correct use of the product basic safety measures should always be followed including the warnings and cautions listed in this document.

Warning

Warning: Improper use may result in death or serious injury.

- Do not use the unit in places where radio communications are prohibited.
- Do not place the unit closer than 22cm (9 inches) from implantable medical devices such as pacemakers.
- Keep the unit out of the reach of young children.
If young children swallow any small piece, immediately consult a doctor.
- Please stop using the unit immediately, if there is strange smell or smoke from the unit.
- Do not subject the unit to extreme temperatures, humidity, moisture, or direct sunlight.
- Internal condensation due to severe change in temperature may cause malfunction.

Caution

Caution: Improper use may result in minor or moderate injury to the user or damage to the equipment.

* Property damage refers to damage related to houses and household belongings, as well as domestic animals and pets.

- Do not use the unit in the field of strong electromagnetic waves and static electricity.
- Please read the instruction manual of your smartphone or tablet for the wireless communication.
- This unit is not a measurement instrument.
The measured values must be treated as a reference, and do not use it for the purpose of verification or diagnosis.
- Do not disconnect the unit from the connected device during USB communication. Doing so may cause failure or data loss.
- Do not forcefully grip the unit or handle it in a reckless manner.
Doing so may cause the unit to be damaged or may cause injury.

Precautions for Correct Use

- Do not use this product with its vent holes (both sides) and window covered. This will prevent accurate measured values from being obtained.
- Do not disassemble or modify the unit.
- Do not subject the unit to strong shocks or vibrations, drop it, step on it.
- As this is a precision instrument, do not pull forcefully on its mounting portion or subject it to stress such as twisting, bending, or shock. Doing so may cause failure or deterioration.
- Do not immerse the unit or any of the components in water.
The unit is not waterproof. Do not wash it or touch it with wet hands. Be careful that water does not get into the unit.

• Depending on the surrounding environment and the mounting position, the measured characteristic may vary. The measured values must be treated as a reference.

- (1) Do not subject the unit to extreme temperatures, humidity, moisture, or direct sunlight.
- (2) Do not use the unit where it will be exposed to dew condensation.
- (3) Do not subject the unit to water, oil or chemical materials.
- (4) Do not use the unit where it will be exposed to flammable gas or corrosive vapors.
- (5) Do not use the unit where it will be exposed to dust, saline matter or iron powder.
- (6) Install in a location as far away from heat-generating instruments, etc., as possible.

• Firmware updates may be provided to improve product functions or to fix bugs. Visit the following URL and search the product name. Check the "Software" page for the appropriate product.

<https://www.components.omron.com/>

<Filter cap 2JCIE-BU01-FL1>

- Do not touch the inner filter when mounting the filter cap.
- Make sure that the environment sensor body and the sensor illumination window on the filter cap are not misaligned.
- Avoid storing the filter cap in a hot and humid place as it may deform the filter cap.

Please check each region's Terms & Conditions by region website.

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Device & Module Solutions Company

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