Temperature and humidity detector

The product realizes the detection of ambient temperature and humidity, and the function of uploading the corresponding values. At the same time, it is defined according to the temperature and humidity and the corresponding environmental somatosensory, and the corresponding range of somatosensory comfort level is output. It is widely used in projects such as smart homes, smart toilets, communication rooms, shopping malls, buildings, warehouses and the military. An example of product appearance is shown in Figure 1.

figure 1

Features

- Wall-mounted or desktop installation, customized display design.
- Real-time monitoring of the temperature and humidity of the environment.
- Support local screen display function.
- Supports communication with the platform, and can regularly report temperature and humidity values and battery status.

Technical parameters

Product Model：ED513
Product number：PB0513BZ00/0X
Product Size：58mm*58mm*17mm
Working Voltage：DC 3V
Working current：stand-by current≤15μA
communication Protocol：Zigbee 2.4GHz
Transmission distance：open visual distance
Measuring range：Temperature: -20～60℃ / Humidity: 0~100% RH
Measurement Accuracy：Temperature: ±0.2°C / Humidity: ±2%RH
On-screen accuracy：Temperature: ±0.1°C / Humidity: ±0.1%RH
Response time：≤1s
Battery Type：CR2450; Button battery CR2450
Installation method：Wall-mounted wall sticker or desktop stand placement
Operating temperature：-20℃～60℃
Working humidity：≤95%(no condensation)

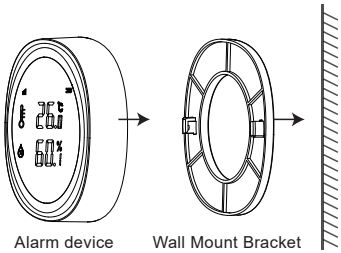

figure 2

Installation Notes

1. Select a suitable installation location, install it with 3M adhesive and wall sticker bracket, and use it immediately after sticking.
2. If you use a desktop bracket, you can directly install it and place it on the desktop.
3. Work power up: Open the battery cover of the product by turning it counterclockwise by hand, put in the CR2450 button battery, and replace the battery cover, and the product can be powered on.

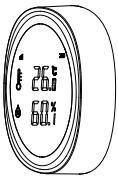

figure 3

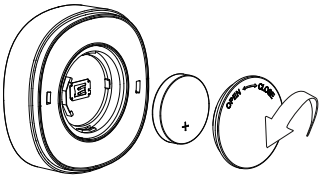

figure 4

◉ Operation and adjustment

1. Initialization state:
   When the power is turned on, the screen displays all icons normally, and it can automatically enter the normal working state after 3~5 seconds.
2. Pair with the Zigbee gateway:
   Open the APP, select the Zigbee gateway, click to add a sub-device, then press and hold the function button on the back of the device for more than 5 seconds, the signal icon on the screen flashes continuously and enters the pairing mode, the device is reset, and the network access request is automatically sent to the Zigbee gateway, and the Zigbee gateway confirms After the signal icon goes out, the network access is completed, and the APP prompts the device to be added successfully.
   The longest configuration time is 2 minutes. If it times out, it will automatically exit the code matching mode.
3. Normal work:
   The device normally displays temperature, humidity values and battery level.
   Obtain temperature and humidity and refresh screen display every 15 seconds, and actively report temperature and humidity every 15 minutes.
4. Factory reset:
   Press and hold the function key on the back until the signal icon on the screen flashes continuously, release the key, and the recovery is successful.
5. Low pressure reminder:
   When the battery power is low, the battery icon flashes to indicate the function.
6. Test and temperature unit switching:
   When the device is working normally, short press the function key on the back to switch the temperature unit displayed on the screen between Celsius (°C) and Fahrenheit (°F), and actively report the current temperature, humidity, and battery power.
7. Abnormal display:
   If the temperature/humidity measurement value is outside the defined measurement range or other abnormal errors, it will be displayed as "--".

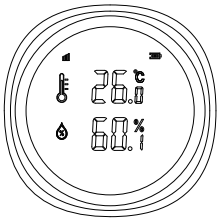

figure 5

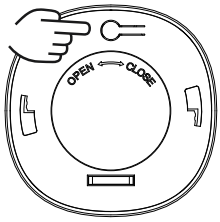

figure 6

◉ Notice

1. The temperature and humidity sensor is non-sealed. In order to protect the accuracy and stability of the measurement, it should be avoided as much as possible in an acidic, alkaline and organic solvent-containing environment, and also in a dusty environment.
2. Do not wipe the machine with liquids such as volatile oil, diluent gasoline.
3. To obtain accurate measurement values, do not block the ventilation holes at the bottom of the product
4. Do not put the battery close to the fire source or throw it into the fire to avoid the battery explosion.
5. This product is not waterproof, please do not let water droplets enter the detector directly.
6. Keep away from the following situations: extreme temperatures; shocks and drops; direct sunlight; frequent temperature changes.

FCC Warning Statement

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

RF Exposure Statement

To maintain compliance with FCC's RF Exposure guidelines, This equipment should be installed and operated with minimum distance of 20cm the radiator your body. This device and its antenna(s) must not be co-located or operation in conjunction with any other antenna or transmitter.