

Multi-in-one air quality sensor

User Manual

KTEAQS-T3/T7



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Safety instructions

- Before installation, please read user manual carefully and observe relevant standards, directives, regulations and instructions.
- Electrical equipment must be installed and programmed by qualified technicians only.
- This device is manufactured according to the relevant technical specifications and have CE.
- For more information of this product, please contact the technical engineer of manufacturer.
- Users are not permitted to alter and maintain the product without the authorization of manufacturer.
- Failure to observe the instructions may cause damage to the device and result in fire or other hazards.

Product Overview

The KTEAQS-T3/T7 is an air quality sensor for the KNX system. It can detect the concentrations of PM1.0, PM2.5, and PM10, as well as temperature, humidity, CO₂, and TVOC. It can be installed either on the wall or on the ceiling.

The temperature and humidity sensor features rapid response and high measurement accuracy. The PM2.5 sensor is a digital general - purpose particulate matter sensor based on the laser scattering principle. It can continuously collect and calculate the number of suspended particulate matter of different particle sizes per unit volume of air, that is, the particulate matter concentration distribution. Then it can convert this into mass concentration and output it through a general - purpose digital interface.

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Product Features

- It is powered by direct current of 24V.
- According to different models, it can detect the concentrations of PM1.0, PM2.5, and PM10, as well as temperature, humidity, CO₂ and TVOC.
- It is installed using a standard 86-type junction box.
- It has been calibrated by professional instruments.
- The temperature measurement range is: -40°C to 85°C.
- The humidity measurement range is: 0% to 100%.
- The PM1.0 concentration measurement range is: 0 to 1000.
- The PM2.5 concentration measurement range is: 0 to 1000.
- The PM10 concentration measurement range is: 0 to 1000.
- The CO₂ concentration measurement range is: 400 to 60000.
- The TVOC measurement range is: 0 to 60000.
- It collects and calculates the suspended particulate matter (PM2.5) based on the laser scattering principle.
- The temperature and humidity sensor and the PM2.5 sensor respectively use independent sensors, which results in higher accuracy.

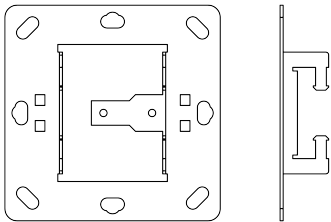
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Programming instructions

1. Select the corresponding product database and import it into ETS.
2. Add the device to the project created in ETS.
3. Press the programming button of the device, and download its physical address through ETS. After the download is completed, the indicator lights of the programming button and the lens will turn off.
4. Open the device database. After setting its parameters and associating the corresponding group objects, perform the application download.
5. After changing the physical address of the device, repeat "Step 3".
6. After modifying the parameter settings or re - associating the "group objects", repeat "Step 4" to implement new functions.

Installation instructions

1. Fix the mounting iron plate of the multi-in-one air quality sensor in an 86-type junction box or a ceiling suspension. If it is not possible to install a junction box on-site, the opening size should be 34 mm in width and 46 mm in height.
2. After connecting the 24V DC transformer and the data communication cable to the sensor, simply snap the sensor into the mounting iron plate.



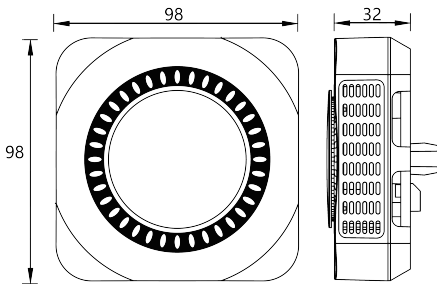
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Product parameters

Parameters	Types	KTEAQS-T3	KTEAQS-T7
Power			
Power Supply		KNX Power 24V DC	
Transmission Media		KNX TP	
Total rated current		≤10mA	
Auxiliary Power Input			
Power Supply		DC 24V	
Power consumption		3W	
Product Info			
Dimensions(W×H×T)		98mm x 98mm x 32mm	
Type of protection		IP20	
Installation method		Standard 86-type junction box	
Opening size		W:34mm × H:46mm	
Sensor			
PM1.0	×		✓
PM2.5	✓		✓
PM10	×		✓
Temperature	✓		✓
Humidity	✓		✓
CO2	×		✓
TVOC	×		✓
Detection range			
PM1.0 μg/m³		0-1000	
PM2.5 μg/m³		0-1000	
PM10 μg/m³		0-1000	
Temperature		-40℃~85℃	
Humidity		0-100	
CO2 ppm		400-60000	
TVOC ppb		0-60000	
Detection precision			
PM1.0		±10%	
PM2.5		±10%	
PM10		±10%	
Temperature		±0.5	
Humidity		±2%	
CO2 ppm		±1	
TVOC ppb		±1	

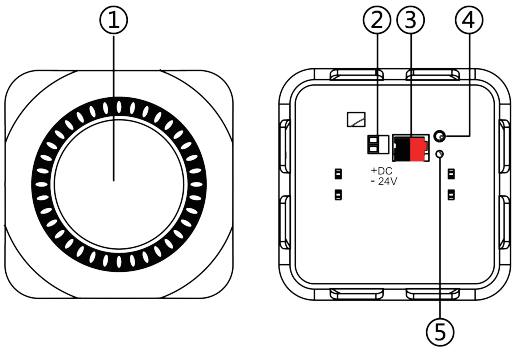
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Product dimensions



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Operating instructions



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Operating instructions

- ① Sensor
- ② Power supply interface: Use a 24V DC wide voltage power supply.
- ③ KNX bus terminal: Connect to the KNX system.
- ④ Programming button. Press this button to program the physical address of the device.
- ⑤ Programming button indicator light. When the programming button is pressed, this indicator light will turn red. After the physical address is successfully downloaded, it will automatically go out. This indicator light can also be turned on/off through the ETS software.

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