

Technical Sheet For KNX Air Quality Sensor V2

CSAQI-06/00.1.0x

The worldwide **STANDARD** for home and building control

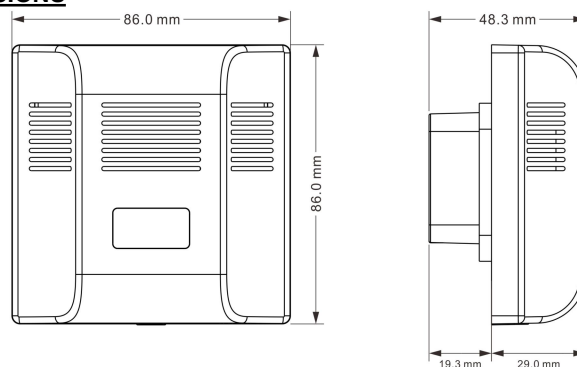
CHARACTERISTICS

- PM2.5, PM10 air quality detection and display
- Temperature, humidity detection and display
- AQI (Air quality index) detection and display
- VOC (Volatile organic compounds)detection and display
- Carbon dioxide (CO2) detection display
- Warning for AQI, VOC, CO2, temperature or humidity above the setting value
- AQI level control
- Heating or cooling control
- Humidity level control
- CO2 control
- VOC control
- Three logic functions

PARAMETERS

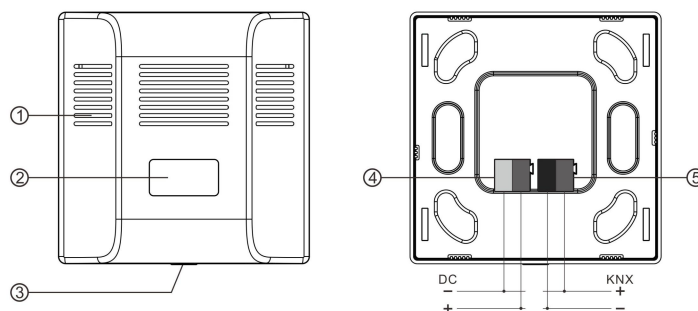
Power supply	Bus voltage	21-30V DC, via the KNX bus
	Bus current	<3.0mA/24V DC, <2.6mA/30V DC
	Bus consumption	<80mW
Auxiliary supply	Voltage	12-30V DC
	Current	<73mA/12V DC, <34mA/24V DC <26mA/30V DC
	Consumption	<0.9W
Connection line	KNX	Bus connection terminal(Red/Black)
	Auxiliary supply	Connection terminal(Yellow/White)
Operation and display	Programming button and LED	For assigning the physical address
PM2.5/PM10 sensor	Range	0-999µg/m³
	Efficiency	50%(φ =0.3µm), 98%(φ ≥0.5 µm)
	Response time	≤ 10s
Temperature sensor	Range and accuracy	- 5 °C ... + 45 °C, ±1.0°C
Humidity sensor	Range and accuracy	0...100%, ±3%
VOC sensor	Range and accuracy	0-9.99 mg/m³, ±10%
CO2 sensor	Range and accuracy	400ppm~2000ppm, ±40ppm
Temperature range	Operation	- 5 °C ... + 45 °C
	Storage	- 25 °C ... + 55 °C
	Transport	- 25 °C ... + 70 °C
Ambient	Humidity	<93%, except dewing
Installation	in a conventional 80 or 86 mm wiring box	

DIMENSIONS



Model	Dimension	Weight
CSAQI-06/00.1.0x	86×86×48.3mm	0.15KG

DESCRIPTIONS



- ① Programming LED
- ② Display area
- ③ Programming button
- ④ Auxiliary supply connection terminal
- ⑤ KNX bus connection terminal

Note: If the CO2 concentration in the sensor is abnormal, the detected CO2 concentration diverge from the CO2(400ppm) of the atmosphere. At this time, keep working still for 6-8s under ventilated conditions, ensure that the concentration of CO2 in the test environment is consistent with the outdoor concentration. Then Long press the button below the sensor for more than 10s to perform CO2 calibration (with the short ring), the user or engineer's mouth should not be near this sensor in this process. The corrected CO2 concentration is the average CO2 concentration in the atmosphere: 400 ppm.

INSTALLATION FIGURE

The Air Quality sensor can be installed in a conventional 80 or 86 mm wiring box. It requires not only KNX bus powered, but also requires a 12-30V DC auxiliary power supply. It is available to assign the physical address and set the parameters by Engineering design tools ETS with knxprod(higher than edition ETS4). Must ensure that the device operation, testing, detecting, maintenance correctly.

The Air Quality sensor must not be exposed to direct contact with liquids.

IMPORTANT INFORMATION

Installation and commissioning of the device may only be carried out by trained electricians. The relevant standards, directives, regulations and instructions must be observed when planning and implementing the electrical installation.

- Protect the device against moisture, dirt and damage during transport, storage and operation!
- Do not operate the device outside the specified technical data (e.g. temperature range)!

Should the device become soiled, it may be cleaned with a dry cloth. If this does not suffice, a cloth lightly moistened with soap solution may be used. On no account should caustic agents or solvents be used.

KNX 空气质量传感器 V2 技术规格书

适用型号：
CSAQI-06/00.1.0x

国际标准的家庭和楼宇控制系统

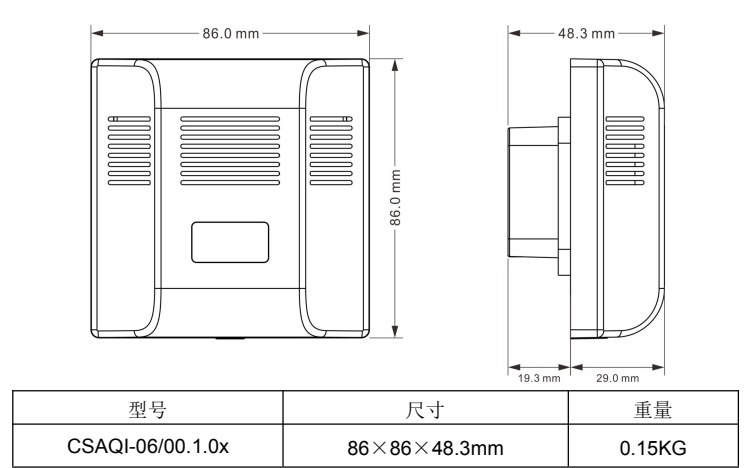
产品功能

- PM2.5, PM10 空气污染颗粒检测显示
- 温度, 湿度检测显示
- 空气质量指数检测显示
- 大气挥发性有机物检测显示
- 二氧化碳（CO2）检测显示
- 空气质量污染等级, 大气挥发性有机物超标, 二氧化碳超标、过温或过湿报警功能
- 空气质量污染等级的控制
- 加热或制冷输出控制
- 湿度等级输出控制
- 大气挥发性有机物超标输出控制
- 二氧化碳超标输出控制
- 三个逻辑功能

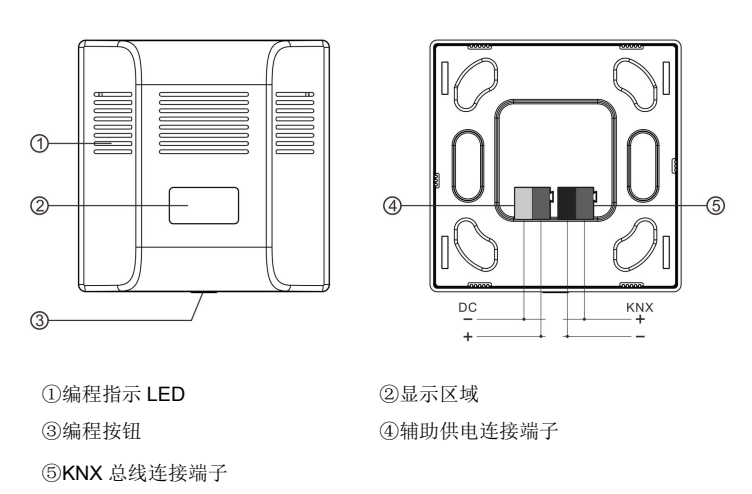
技术参数

总线电源	总线电压	21-30V DC, 通过 KNX 总线获得
	总线电流	<3.0mA/24V DC, <2.6mA/30V DC
	总线功耗	<80mW
辅助电源	电压	12-30V DC
	电流	<73mA/12V DC, <34mA/24V DC <26mA/30V DC
	功耗	<0.9W
	接线	KNX
操作与指示	辅助供电	总线连接端子（黄/白）
	编程按钮和 LED	分配物理地址
颗粒物浓度传感器	测量范围	0-999µg/m³
	计数效率	50%(φ=0.3um), 98%(φ≥0.5 um)
	响应时间	≤10s
温度检测	范围和精度	- 5°C ... + 45 ° C, ±1.0°C
湿度检测	范围和精度	0...100%, ±3%
VOC 检测	范围和精度	0-9.99 mg/m³, ±10%
CO2 检测	范围和精度	400ppm~2000ppm, ±40ppm
温度范围	运行	- 5 °C ... + 45 °C
	存储	- 25 °C ... + 55 °C
	运输	- 25 °C ... + 70 °C
环境条件	湿度	<93%, 没有结露
安装	安装方式	标准 80 或 86 盒墙装方式

尺寸规格



接线图



注: 如果传感器中 CO2 浓度读数异常, 测试结果偏差大气中 CO2 浓度 (400ppm) 较多。此时需在通风的情况下, 持续静置 6-8s, 保证测试环境的 CO2 的浓度与室外浓度一致, 然后长按传感器下方按钮 10s 以上执行 CO2 校准 (会听到滴的一声), 这个过程调试人员的嘴请勿对这传感器, 以免造成误差。校正后的 CO2 浓度为大气中平均 CO2 浓度: 400ppm。

安装说明

六合一空气质量传感器装在标准的墙式 80 或 86 盒中, 它不仅需要 KNX 总线供电, 而且还需要一个 12-30V DC 的辅助电源供电。物理地址的分配及参数的设定都可以使用带有 knxprod 文件的工程设计工具软件 ETS (版本 ETS4 以上)。安装时必须确保设备操作、测试、检测、维护、维修正确无误。

本产品不允许安装在与液体直接接触的地方。

重要提示

安装和调试设备只能由合格的熟练电工来操作。在计划与实施电气安装的过程中相关的标准、指令、规则和指示都要严格执行。

- 需要避免器件在运输、储存、使用的过程中受潮、脏污以及受损。
- 不要使器件运行在指定的技术指标之外 (例如温度范围)。

当设备脏污时, 只可以使用干燥的布来清洁。如果这样不足以清洁干净, 可以使用湿布蘸少许肥皂溶液轻轻擦拭。绝不能使用碱剂或者腐蚀性溶剂。