Product Data

SEN-0071 - Space VOC sensor

Product Description

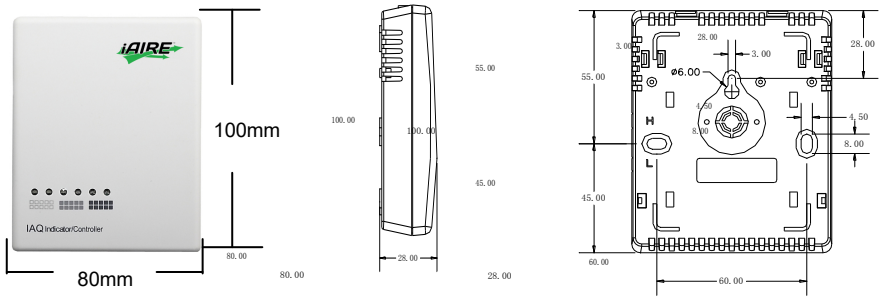
Indoor Air Quality-IAQ is a comprehensive concept involving various indoor gases and different kinds of low concentration pollutants. To detect and indicate IAQ level has become more and more important for the sake of establishing and maintaining healthy working and living environment.

The SEN-0071 is specially designed to detect room IAQ level with a Modbus RS485 and an optional linear analog output, as well as an optional relay output to control a ventilator or an air cleaner based on the pre-set measurement.

Its internal mixed gas sensor (normally called VOC sensor) is very sensitive to VOC concentration in the air (VOC i.e. Volatility Organic Compound, such as timber dope and toluene emitted by building materials), and other air pollutants such as cigarette smoke, ammonia and H_2S. It also has high sensitivity to CO, alcohol, natural gas and odorous smells from human bodies. Compared with other single air sensor, SEN-0071 is better for longtime IAQ detection.

SEN-0071 can also be used as a controller in application of ventilation and air conditioning systems to improve indoor air quality and to achieve the best energy saving.

Product Dimensions (mm)



Product Application

- Online real-time detecting indoor air quality.
- Green Building Assessment
- BAS and HVAC
- Smart Home System
- Fresh Air Controlling System
- Building Energy Saving Reconstruction and Assessment System
- Classroom, office, exhibition hall, shopping mall, other public places

NOTE: SEN-0071 detector cannot be used as a safety detector, for example, gas alert detector.

Features

- Wall mounting, real time detect indoor air quality
- With Japanese semiconductor mix gas sensor inside. 5~7 years lifetime.
- High sensitive to contaminative gases and various kinds of odorous gases within the room (smoke, CO, alcohol, human odor, material odor).
- Six indicator lights to indicate six different IAQ ranges.
- Temperature and humidity compensation makes the IAQ measurements consistent.
- Modbus RS-485 communication interface, 15KV antistatic protection, independent address setting.
- One 0~10VDC or 4~20mA linear output.

Technical Specifications

Gas detected	VOCs (toluene emitted from wood finishing and construction products); Cigarette smoke (hydrogen, carbon monoxide); ammonia and H_2S, alcohol, natural gas and human odor.
Sensing element	Semiconductor mix gas sensor
Measuring range	1~30ppm
Power Supply	24VAC/VDC
Consumption	2.5 W
Load (for the analog output)	>5K
Sensor query frequency	Every 1s
Warm up time	48 hours (first time) 10 minutes (operation)
Six indicator lights	The first green indicator light**:** Best air quality The first and the second green indicator lights: Better air quality The first yellow indicator light: Good air quality The first and the second yellow indicator lights: Poor air quality The first red indicator light: Poorer air quality The first and the second red indicator lights: Poorest air quality
Modbus interface	RS485 with 19200bps(default), 15KV antistatic protection, independent base address
Analog output (Optional)	0~10VDC linear output (4 to 20ma selectable by jumper)
Output resolution	10Bit
Temperature range	0~50℃ (32~122℉)
Humidity range	0~95%RH，non condensing
Storage conditions	0~50℃ (32~122℉) /5~90%RH
Weight	190g
Dimensions	100mm×80mm×28mm
Installation standard	65mm×65mm or 2”×4”wire box
Wiring terminals	Maximum 7 terminals
Housing	PC/ABS Plastic fireproof material, IP30 protection class
CE approval	EMC 60730-1: 2000 +A1:2004 + A2:2008 Directive 2004/108/EC Electromagnetic Compatibility