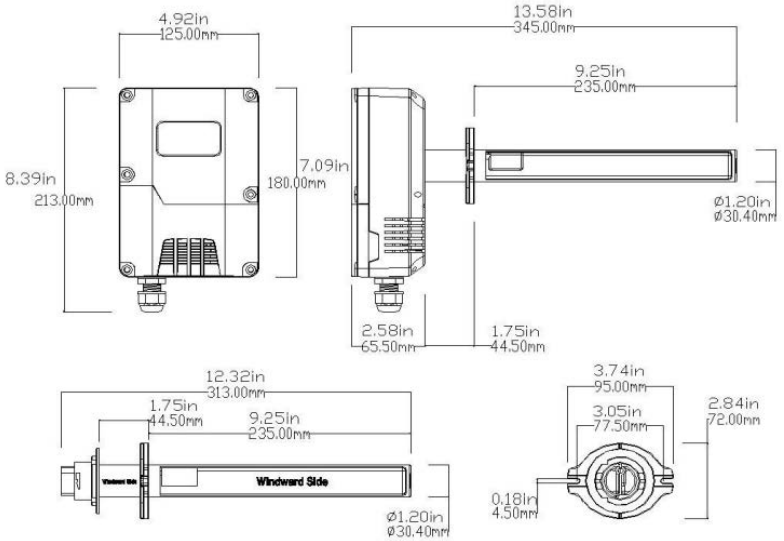
Product Data

SEN-0076 | Duct IAQ Sensor

Product Description

Real-time collecting of indoor air quality data in intelligent buildings / green buildings. Achieve multi-parameter and all-direction, real-time monitoring and assessment of indoor air quality and use it to control building ventilation and air conditioning systems.

Product Dimensions (inches [cm])



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 place

Features

- SEN-0076 in-duct air quality detector is specially designed for monitoring multi-parameter air quality in air duct. Installed in wind duct or return air duct.
- Built-in a large air bearing fan, regulate the fan speed automatically, guarantee constant air volume and improve the stability and lifetime in long-term operation.
- Special design of pitot tube. Instead of the air pump mode, adapts to a wider range of wind speeds. Increases lifetime and there is no need to change the air pump frequently.
- Easy to clean filter mesh, can be disassembled and used many times.
- With temperature and humidity compensation, reduce the impact of environmental change.
- Real-time monitoring parameters: particles (PM2.5 and PM10), carbon dioxide (CO_2), TVOC, air temperature and humidity.
- Independently measure the temperature and humidity in the air duct, avoid interference from other sensors and monitoring heating.
- Provides BACNet communication interfaces selection. Provide multiple communication protocol choices.
- Connect to the data acquisition / analysis software platform to achieve data storage, data comparison and data analysis.
- Data can be read and displayed on-site with blue tooth or the operation tool.
- Working with SEN-0077 indoor air quality monitors together, comprehensively and accurately analyze the air quality. Quantitative assessment of indoor air pollution.

Technical Specifications

General Data

Power Supply	12~28VDC/18~27VAC
Communication Interface：	BACNet MS/TP
Data upload interval cycle	Average / 60 seconds
Applicable air speed of duct	2.0~15m/s
Operating Condition	(-4 ^{O}F~140 ^{O}F) -20 ^{O}C~60 ^{O}C/ 0~99%RH, (No condensation)
Storage Condition	(32 ^{O}F~122 ^{O}F) 0 ^{O}C~50 ^{O}C/ 10~60%RH
Overall Dimension	180X125X65.5mm (7.09X4.92X20.58in)
Pitot tube size	240mm (9.45in)
Net weight	850g (1.87lb)
Shell material	PC material

CO_2 Data

Sensor	Non-Dispersive Infrared Detector (NDIR)
Measuring Range	0～2,000ppm
Output Resolution	1ppm
Accuracy	±50ppm + 3% of reading or ±75ppm (whichever is bigger) （25 ^{O}C/77 ^{O}F, 10%~80%RH）

Particle Data

Sensor	Laser particle sensor
Measuring Range	PM2.5: 0~500 μg/m3 ； PM10: 0~500 μg/m3；
Output values	moving average/60 seconds, moving average/1 hour, moving average/24 hours
Output Resolution	0.1 μg/㎥
Zero Point Stability	<2.5 μg/㎥
PM2.5 Accuracy (mean per hour)	<±5 μg/㎥+10% reading （0~300 μg/㎥@10~30OC/50~86OF，10~60%RH)

Temp & Humidity Data

Sensor	Band gap material temperature sensor、Capacitive humidity sensor
Temperature range	-20℃~60℃
Relative humidity range	0~99%RH
Output Resolution	Temperature: 0.01℃ humidity:0.01%RH
Accuracy	±0.5℃，3.5%RH（25℃, 10%~60%RH）

TVOC Data

Sensor	Metal oxide sensor
Measuring Range	0～3.5mg/m3
Output Resolution	0.001mg/m3
Accuracy	<±0.05mg/m3+ 15% of reading (25 ^{O}C/77 ^{O}F, 10%~60%RH)