Building automation

Ensure good indoor air quality

Building automation is the smart way of managing and improving the performance of various systems and devices in a building. It uses environmental sensors to measure and monitor different aspects of the indoor and outdoor environment. These sensors provide the data and feedback that allow the automation systems to adjust and optimize the settings and operations of the devices. Building automation enhances comfort and safety of the occupants, while also saving energy and reducing operational costs.

Target customers:
- Thermostat manufacturers
- VAV controller manufacturers
- IAQ-monitor manufacturers
- Air purifier manufacturers

SEN6x

Application challenges

1. Inconsistent control of indoor environment

2. Long design and assembly time with discrete sensors

3. Measuring multiple IAQ-parameters at once

Sensirion's solutions

1. Energy efficiency through accurate measurements and on-demand operation

2. Only 1 standardized combo module for all sensor combination variants

3. 9-in-1 combo module for PMx, RH, T, VOC, NOx and CO_2

SENSIRION

Sensirion sensor solution:

SEN66: Sensing platform for simplified indoor air quality measurements

Size (LxWxH): 55.5 x 25.6 x 21.5 mm³

Key sensor features

- All necessary algorithms integrated (e.g. temperature compensation & acceleration)
- Reduced power modes
- Identicial mechanical interface for all variants of SEN6x
- Dust protection and long life-time
- Smallest combo module on the market

Other applications

- VAV controllers
- Room sensors
- Air purifiers

FAQs

- **Which sensors are built into this combo module?**
  SEN66 consists of PM1, PM2.5, PM4, PM10, RH, T, VOC, NOX and CO_2

- **What are the advantages when designing-in?**
  Only 1 module to consider, 1 interface, optimized flow channel geometry, cross-influence of sensors minimized, only small µC on product side

- **Are there advantages during assembly?**
  Fast assembly, module can be clicked-in, 1 connector only

- **Would measurements need to be compensated?**
  All algorithms integrated, temperature acceleration and compensation, VOC & NOX index calculation and tuneability

- **How about dust protection and lifetime?**
  SEN66 features a patented sheet-flow technology and uses high quality components

- **What are the dimensions of the module?**
  With 55.5x25.6x21.5mm3 it is among the smallest modules on the market

- **Are there reduced power modes?**
  There is RHT/Gas only mode, lower power consumption by up to 85%

- **What about regulatory constraints within building standards?**
  Our sensors are WELL and RESET compliant

- **What are the advantages for automated building ventilation?**
  Reliable measurements with environmental sensors help saving energy and costs

Getting started

Simplifying indoor air quality sensing with the SEN6x

Related sensors

↗ SEN6x series

Useful documents

Datasheets, application notes, handling instructions, sample codes, step files, certificates

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