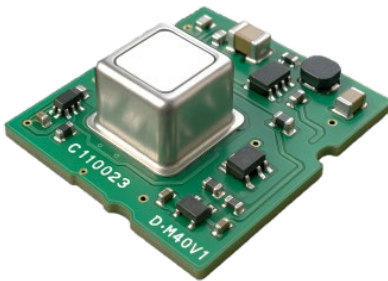


Engineered for accuracy, built to endure: Sensirion announces highly intrinsically stable CO₂ sensor

The SCD53 enables worry-free CO₂ sensing even under demanding conditions through excellent long-term stability, best-in-class accuracy and robustness. Sensirion is excited to launch their next generation high-performance CO₂ sensor in late 2026.



Possible design SCD53 CO₂ sensor
(Source: Sensirion AG)

Stäfa, Switzerland – SCD53 is designed to address an increasingly relevant challenge in gas sensing: maintaining accuracy long-term without relying on costly manual recalibration or regular exposure to outdoor fresh air. Many sensors in use today successfully apply automatic baseline calibration algorithms (i.e., “ABC” or “ASC”) to maintain their accuracy over time. These assume regular exposure of the sensor to air at the atmospheric baseline concentration. However, not all applications can guarantee fulfillment of this condition, including demand-controlled ventilation (DCV) systems for permanently occupied spaces, exclusively mechanically ventilated buildings, or smart greenhouses.

The SCD53 combines Sensirion’s leading expertise in photoacoustic NDIR sensing with advanced laser technology for excellent long-term stability independent of fresh-air based recalibration algorithms. Furthermore, the sensor provides best-in-class accuracy, with robustness against dust, vibrations or mechanical forces. Integrated humidity and temperature compensation, as well as optional pressure correction, enable reliable readings across a demanding range of environmental conditions. On-demand measurements, compact sensor size and a reflow solderable LGA package make integrating SCD53 simple, flexible and cost-efficient.

For more information, please visit our [product page](#).

At a glance - SCD53 CO₂ sensor:

- Highly intrinsically stable without ASC / ABC
- Robust performance across a wide range of environmental conditions
- Accuracy: $\pm(30 \text{ ppm} + 3\% \text{ m.v.})$
- Compact size and reflow solderable
- Launch Date: Q4 2026

About Sensirion – Experts for Environmental and Flow Sensor Solutions

Sensirion is one of the world's leading developers and manufacturers of sensors and sensor solutions that improve efficiency, health, safety, and comfort. Founded in 1998, the company now employs around 1'200 people at its headquarters in Stäfa, Switzerland and in numerous international subsidiaries. Their sensors can be used to measure a wide range of environmental parameters and flow rates precisely and reliably. As a pioneer in innovation, Sensirion develops solutions for the specific needs of customers and partners from the automotive, industrial, medical, HVAC and consumer electronics markets, as well as high-quality products for cost-efficient mass production. More information and current key figures are available at www.sensirion.com.