

Senseair S8 LP



A very small, versatile and mass-producible CO₂ sensor module

More than 30 years experience of research and development within the field of infrared gas sensing has now brought us the smallest CO₂ sensor, with NDIR-technology, in the world – Senseair S8 LP. The new sensor has excellent performance such as high accuracy and low power consumption. Senseair S8 LP is designed for high volume production with full traceability by sensor serial number on all manufacturing processes and key components. Every sensor is individually calibrated and is provided with UART digital interface. The sensor is maintenance-free and has an estimated life time of more than 15 years.

Senseair S8 LP is a module that is designed for simple integration into products. Senseair S8 LP can be used in a wide range of applications such as in ventilation control to improve energy savings and to ensure a good indoor climate. Other fields of use are personal safety and measurements to increase process yield and to increase economic value in bio-related processes.

Standard specification

Article number	004-0-0053
Operating principle	Non-dispersive infrared
Measured gas	Carbon dioxide (CO ₂)
Measurement range	400–10 000 ppm
Accuracy	±40 ppm ±3% of reading ¹
Operating conditions	0–50 °C 0–85% RH
Warm-up time	< 60 s
Response time $\tau_{63\%}$	≤ 30 s
Power supply	4.5–5.25 V
Peak current	300 mA
Average current	18 mA
Communication	UART (Modbus)
Outputs	Digital
Compliance	ANSI/ASHRAE 62.1-2022 RESET grade B WELL v2™ California Energy Code
Maintenance	Maintenance free
Life expectancy	> 15 years
Dimensions [mm]	33.9x19.8x8.7 with pin headers (optional) 33.9x19.8x9.3
Weight	8 g
Storage conditions	-40–70 °C

Key benefits

- Miniature size
- Compliant with
 - ANSI/ASHRAE Standard 62.1-2022
 - +Addendum ab (October 31, 2023)
 - RESET grade B
 - WELL Building Standard® (WELL v2™)
 - Title 24, California Energy Code
- Individually calibrated
- Maintenance-free
- Long term stability
- Low power consumption

Note 1: ±75ppm Accuracy at 600, 1000 and 2500ppm @ sea level, 77 °F (25 °C)
(ANSI/ASHRAE compliance)

Disclaimer : Please refer to product specification for the complete technical details.