

# Senseair Sunrise

## A new generation NDIR sensors

Senseair Sunrise is a new generation NDIR sensors with Optical Solid State design. This sensor is robust and resistant to vibrations thanks to electronics with no moving parts. All applications with a tough environment or in environments with an explosion risk is benefitted by the solid state design.

It is also the first NDIR sensor with LED technology that truly saves power while maintaining a high precision. The sensor has an accuracy of (CO<sub>2</sub>) ±(30 ppm +3% of reading) and a power consumption 24 times lower than other low-power NDIR sensors on the market. Average current 38µA<sup>3</sup>.

Thanks to the built-in self-correcting ABC algorithm, you can mount and forget your sensor for the next 15 years and it will still be accurate. Within wireless applications, it will be even more important to rely on a sensor that doesn't need re-calibration.



### Standard specification

Measured gas	Carbon dioxide (CO <sub>2</sub> )
Operating principle	Non-dispersive infrared
Measurement range (CO <sub>2</sub> )	400 – 5000ppm; extended range up to 10000ppm
Accuracy (CO <sub>2</sub> )	±(30ppm +3% of reading) <sup>1,2</sup> (extended range ±10% of reading)
Peak current	<125mA
Steady state current during sampling	85mA
Average current, typical	38µA <sup>3</sup>
Measurement setting	Default: 16s, 8 samples (adjustable by host)
Power supply	3.05 – 5.5V <sup>4</sup>
Dimensions	33.5 x 19.7 x 11.5mm
Weight	5g
Life expectancy	>15 years

Note 1: 15 – 35°C, 0 – 80%RH, after 3 8-day periods, each period followed by ABC command set in the Calculation Control byte.

Note 2: Specification is referenced to uncertainty of calibration as mixtures (±1%).

Note 3: Typical average current consumption @25°C, default measurement settings

Note 4: Unprotected against surges and reverse connection

### Key benefits

- Optical Solid State
- Ultra Low Power
- High Precision
- Robust
- Mass Production
- Self Correcting



Senseair

part of AsahiKASEI