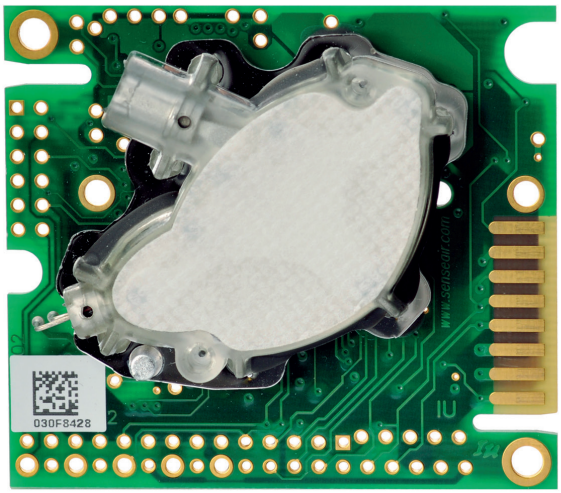
Senseair K30 3%



Sensor Module and OEM Platform

Senseair K30 3% is a flexible product with two analogue outputs and two digital outputs that can be configured with SADK hardware and UIP or other custom software to meet your requirement.
Digital value representation in 10ppm bins/notation up to 4%$_{vol}$

The Senseair K30 3% platform can be customised for a variety of sensing and control applications. This platform is designed to be an OEM module for built-in applications in a host apparatus.

Standard specification

Measured gas	Carbon dioxide (CO_2)
Operating principle	Non-dispersive infrared (NDIR)
Measurement range CO_2	0–3%vol (extended range up to 4%vol)
OUT1 Linear Output	1–4VDC = 0–2%
OUT2 Linear Output	1–4VDC = 0–2%
Accuracy CO_2	±300ppm ±3% of reading
Dimensions (L x W x H)	51 x 57 x 14mm
Life expectancy	>15 years
Operating temperature range	0–50°C
Operating humidity range	0–95%RH (non-condensing)
Power supply	4.5–14VDC
Communication	I^2C, UART (Modbus)

Key benefits

- Flexible
- Easy to configure
- Maintenance-free

An Asahi Kasei Group Company.

Senseair K30 3% Technical Specification

General Sensor Performance:

Storage temperature range	-30–70°C, (non condensing)
Sensor life expectancy	>15 years
Maintenance interval	Maintenance free [1]
Self-diagnostics	Complete function-check of the sensor module
Operating temperature range	0–50°C
Operating humidity range	0–95%RH, (non condensing) [2]

Electrical Properties:

Power input	4.5–14VDC max rating, (without reverse polarity protection) stabilised to ±5% over load and line changes. Ripple voltage less than 100mV. [3]
Current consumption	40mA average <150mA peak current (averaged during IR lamp ON, 120msec) <300mA peak power (during IR lamp start-up, the first 50msec)
Dimensions	51 x 57 x 14mm (Length x Width x Height)

CO_2 Measurement:

Operating principle	Non-dispersive infrared (NDIR) waveguide technology with ABC (Automatic Baseline Correction)
Sampling method	Diffusion
Response time ($T_{1/e}$)	<20s, diffusion time
Measurement range	0–3%$_{vol}$ (extended range up to 4%$_{vol}$)
Accuracy	±300ppm ±3% of reading [4] (extended range up to 4%vol, ±10% of reading)

Outputs:

Linear

OUT1	1–4VDC = 0–2% (extended range up to 4%vol)
OUT2	1–4VDC = 0–2% (extended range up to 4%vol)
Electrical Characteristics	R_{OUT} <100Ω, R_{LOAD} >5kΩ

Note 1: When using ABC (Automatic Baseline Correction) algorithm of Senseair. ABC is enabled in default configuration.

Note 2: For applications operating continuously in high humidity, contact Senseair for further information.

Note 3: Notice that absolute maximum rating is 14V, so that sensor can be used with a 12V±10% supply.

Note 4: Accuracy is specified over operating temperature range at normal pressure 101.3kPa. Specification is referenced to certified calibration mixtures. Uncertainty of calibration gas mixtures (±1% currently) is to be added to the specified accuracy for absolute measurements.