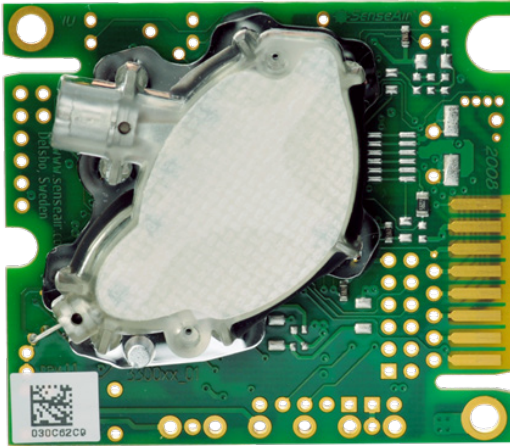


Senseair K33 LP T

Low power sensor core for CO₂ and temperature measurement



Senseair K33 LP T is a low power module. The adjustable measurement interval, results in average current that can be reduced to less than 52µA (one measurement every 60 minutes).

Senseair K33 LP T is designed for low power application. The module is as all other sensors from Senseair 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. Optional feature is RH (Senseair K33 LP T/RH).

This platform is designed to be a low power OEM module for integration into host apparatus, such as battery operated products and sensors with radio transmitters - any application where power consumption is important to keep at a minimum without sacrificing the performance.

Standard specification

Measured gas	Carbon dioxide (CO ₂)
Operating principle	Non-dispersive infrared (NDIR)
Measurement range	400–5000ppm (extended range 5000–10000ppm)
Operation temp. range	0–50 °C
Operation humidity range	0–80% RH (non-condensing)
Accuracy	±30ppm ±3% of measured value ^{1,2}
Accuracy ext. range	±20% of measured value
Average current	< 1.5mA with 30s measurement period
Peak current	< 300mA
Dimensions (L x W x H)	57.15 x 50.80 x 11.80mm
Life expectancy	> 15 years
Power supply	4.75–12VDC max rating via Vbat+
Communication	I ² C, UART (Modbus protocol)

Key benefits

- Low-power consumption
- Compliant with ANSI/ASHRAE Standard 62.1-2022
- Compliant with RESET grad B
- Compliant with WELL Building Standard® (WELL v2™)
- Individually calibrated
- Maintenance free
- High quality
- Long term stability



Note 1: 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.

Note 2: Accuracy is defined after minimum three (3) ABC periods of continuous operation with ABC enabled (default configuration).

Senseair