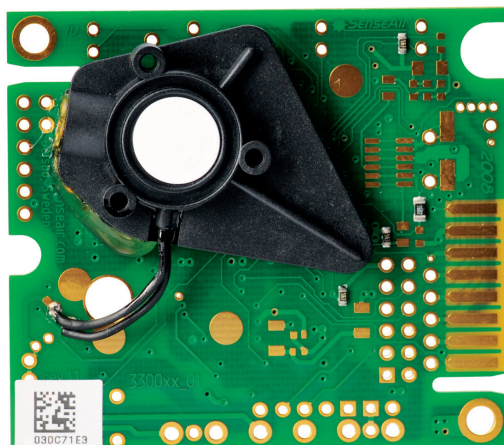


Senseair K33 BLG

Sensor module for environment parameters logging



Senseair K33 BLG is a sensor module for measuring percentage-range carbon dioxide concentration, ambient temperature and relative humidity. It is very easy and small to integrate and operate. It works by either battery-operation or continuous-power. The measurement interval and logging frequency can both be configured to fit a required time resolution. All this result in adaptable and very low average power consumption to fit many requirements; both regarding long battery-operated life-time and low disturbing thermal output and self-heating.

Senseair K33 BLG can be used for low-power and battery applications. It has a large integrated memory for storing of the environmental parameters, also with timestamp. For continuous non-battery installations or when extracting data from memory, the sensor is equipped both with I²C factory edge-connector and with UART digital interface and communicate through Modbus.

Standard specification

Measured gas	Carbon dioxide (CO ₂)
Operating principle	Non-dispersive infrared (NDIR)
Measurement range CO ₂	0 – 30% _{vol.}
Measurement range temp	-30 – 60 °C
Measurement range RH	0 – 100%
Accuracy CO ₂	±(0.2% _{vol.} +3% of measured value)
Logging memory	5400 entries (14 bytes, 4 parameters)
Dimensions (L x W x H)	57.2 x 50.8 x 13.9 mm
Life expectancy	>10 years
Operation temp. range	0 – 50 °C
Operation humidity range	0 – 95% RH (non-condensing)
Power supply	
G+ referred to G0	5.5 – 12 V DC max rating
Vbat+ referred to G0	4.75 – 12 V DC max rating
Peak current	<250 mA
Communication	I ² C, UART (Modbus)

Key benefits

- Triple environmental sensing: CO₂, temp and RH
- Configurable sampling and measurement periods
- Logger functionality (time, CO₂, temperature, RH)
- Configurable logging resolution, minutes to months
- Low-power consumption by stand-by mode
- Maintenance-free operation
- Calibrated and specified measurement accuracy over wide environmental conditions

