

CO₂ gas sensor

Summary

CO₂ sensor can offer miniaturization, low power, direct CO₂ gas detection.
 Core competence technology is thin film thermistor, MEMS structure, micro heater platform and ASIC "Control algorithm".

Features

- Detect real CO₂ gas : Accuracy $\pm 75\text{ppm} \pm 3\%$ of reading
- Small Size / Low Profile : 5.0mm × 5.0mm × 1.2mm
- Low power consumption : 1.8mW / 60sec. intermittent operation

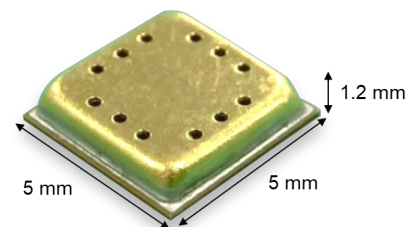
Major Applications

- Indoor Air Quality monitoring "IAQ"
- Demand Control Ventilation "DCV"
- Wearable device

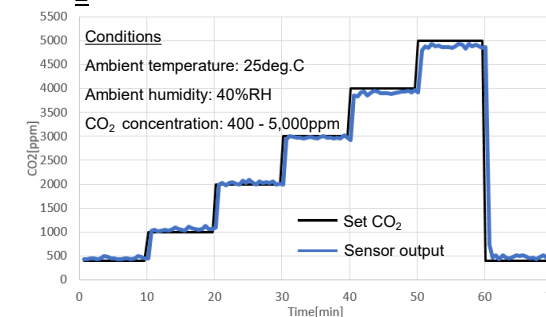
IAQ : Indoor Air Quality monitoring
 DCV : Demand Control Ventilation

Characteristics

Sensor figure



CO₂ step response



Target specifications

Parameter	unit	Target specifications
Package size	mm	5.0 x 5.0 x 1.2
Power consumption※1	mW	1.8
CO ₂ detection range	ppm	400 to 5,000
CO ₂ detection accuracy※2	ppm	$\pm 75 \text{ ppm} \pm 3 \% \text{ of reading}$
Temperature range	deg C	10 to 60
Humidity range	%RH	10 to 90
Temperature Coefficient of output	ppm / deg C	8
Humidity Coefficient of output	ppm / %RH	8
Power voltage	V	3.3

※1 Measurement Cycle : 60sec.

※2 Constant condition
 Temperature=25deg.C,
 Humidity=50% RH,
 Pressure=1013hPa