

GSS
Gas Sensing Solutions



Ultra-Low-Power CO₂ sensor

Fit and forget, fully autonomous operation

The CozIR[®]-A is a low-power NDIR CO₂ sensor using state-of-the-art solid-state LED optical technology. The LED technology enables the CozIR[®]-A to reduce power consumption to levels that make it particularly useful for battery powered or wireless interface applications where power is at a premium.

About CozIR[®]-A

CozIR[®]-A is a universal sensor option for ambient sensing applications with an easy to use UART digital interface and optional low impedance voltage output for CO₂ measurement readings.

The CozIR[®]-A features built-in auto-calibration, ensuring the sensor exhibits high accuracy over the lifetime of the sensor.

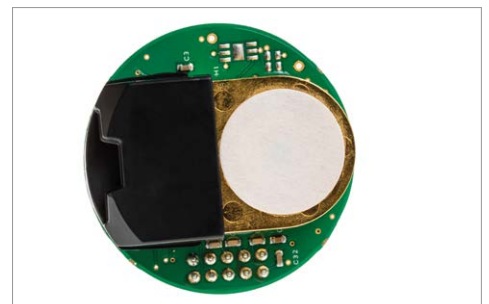
In addition, the CozIR[®]-A has a number of user definable choices to optimise integration into a wide variety of environments including different mechanical mounting options and extended temperature ranges.

Features

- Ultra-low-power CO₂ sensor
- 30ppm (typ.) measurement accuracy
- Solid state LED optical technology
- Optional Temperature and Relative Humidity sensing
- Optional Analogue (Voltage) output
- UART data interface
- Built-in auto-calibration
- California Building Standards Code, Title 24 compliant

Applications

- Indoor Air Quality (IAQ)
- IoT and Smart Technology wireless equipment
- Air Quality and HVAC Systems
- Building Management Systems (BMS)
- Demand-Controlled Ventilation (DCV) systems
- Transport
- In-Cabin Air Quality



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CozIR[®] Series

Further models from our series



CozIR[®]-Blink
Ultra-Low-Power CO₂ sensor with Power Cycling



CozIR[®]-LP
Ultra-Low-Power CO₂ sensor



CozIR[®]-LP²
Ultra-Low-Power CO₂ sensor

CO₂ Sensor Specifications

Measurement Ranges	0-2000ppm, 0-5000ppm, 0- 10000ppm (0-1%)
Accuracy (typ.)	±(30ppm +3% of reading)
Time to 1st Reading	<1.2 seconds
Response Time	<20 Seconds (Diffusion limited)
Sample Method	Solid-state LED NDIR Diffusion

Electrical and Mechanical Specifications

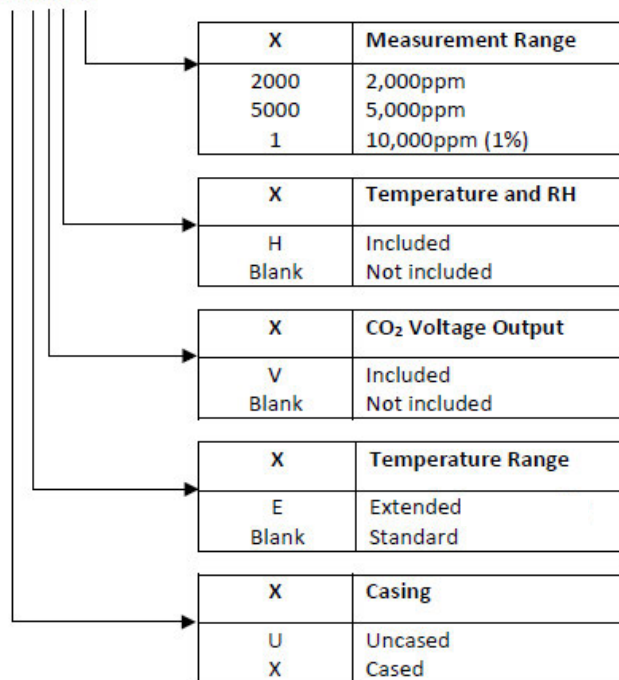
Measurement Output	UART, Analogue (Optional)
Supply Voltage	3.25V - 5.5V
Power Consumption (typ.)	<3.5mW @ 3.3V
Dimensions and Weight	Ø40.4mm x 11.65mm, 19g - Uncased Ø57mm x 17.25mm, 19g - Cased

Operating Conditions

Operating Conditions - Temperature	0°C to 50°C (Standard) -25°C to 55°C (Extended)
Operating Conditions - Humidity	0-95% RH, non-condensing
Storage Conditions - Temperature	-40°C to +70°C
Pressure Dependence	500mbar - 1500mbar
Sensor Lifetime	>15 years
Environmental Compliance	RoHS and REACH

Ordering Information

COZIR-A-X-XXX-X



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Discover also our further product series

ExplorIR® Series



Small footprint CO₂ Sensors

SprintIR® Series



High Speed CO₂ Sensors



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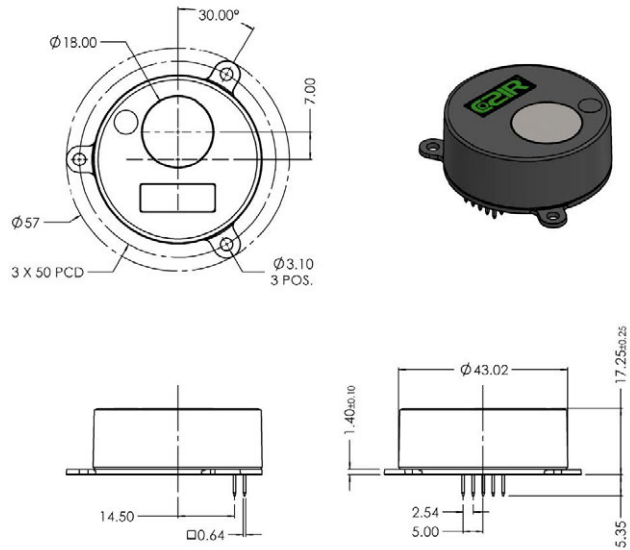
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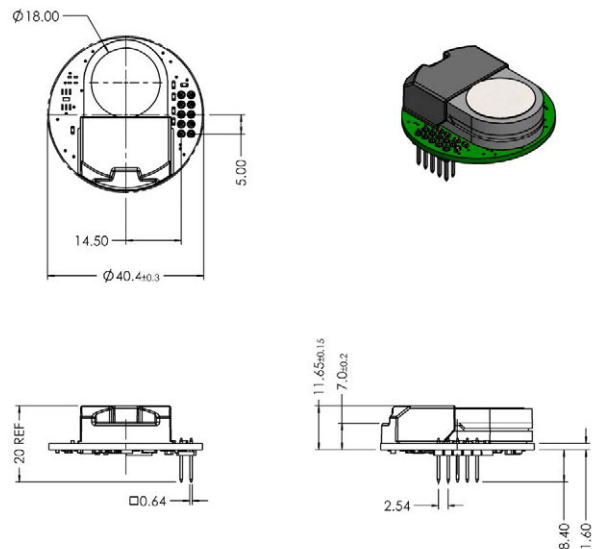
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Dimension Drawing - CozIR® - A cased



Dimension Drawing - CozIR® - A uncased



Pin-Out Description - CozIR® A (Both Types)

Pin	Name	Type	Description
1	GND	Supply	Sensor ground
2	NC	Supply	Do Not Connect
3	VDD	Supply	Sensor supply voltage
4	GND	Supply	Sensor ground
5	Rx_In	Digital Input	UART Receive Input
6	GND	Supply	Sensor ground
7	Tx_Out	Digital Output	UART Transmit Output
8	NITROGEN_ZERO	Digital Input	Set low to initiate a Zero in Nitrogen Calibration Cycle
9	ANALOGUE_OUTPUT	Analogue Output	CO ₂ Level (Optional)
10	FRESH_AIR_ZERO	Digital Input	Set low to initiate a Zero in Fresh Air Calibration Cycle