CozIR®- LP

Ultra-Low-Power CO$_2$ sensor with UART interface

Fit and forget, fully autonomous operation

The sensor is designed for measuring ambient levels of CO$_2$ from 0-1%.
The CozIR®-LP also features a built-in auto-calibration function that maintains CO$_2$ measurement accuracy over the lifetime of the product.

About CozIR®- LP

The CozIR®-LP is part of a new generation of ambient CO$_2$ sensors optimised for low-power applications. The CozIR®-LP uses NDIR solid-state LED optical technology to create a sensor with a small footprint and ultra-low-power consumption. This makes it ideal for a new generation of portable and battery powered ambient measurement applications that require highly accurate CO$_2$ measurement capability.

Features

- Ultra-low-power CO$_2$ sensor
- 30ppm (typ.) measurement accuracy
- Solid state LED optical technology
- 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

CO$_2$ 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	<30 Seconds (Diffusion limited)
Sample Method	Solid-state LED NDIR Diffusion

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CozIR®- LP

CozIR® Series

Further models from our series

CozIR®- A
with optional temperature and humidity sensing.

CozIR®- Blink
Ultra-Low-Power CO_2 sensor with Power Cycling

CozIR®- LP 2
Ultra-Low-Power CO_2 sensor

HTK Hamburg GmbH

Oehleckerring 32
22419 Hamburg

Phone: +49 (0)40 - 600 38 38 - 0
Fax: +49 (0)40 - 600 38 38 - 99
info@htk-hamburg.com

Gas Sensing Solutions Ltd.

60-62 Grayshill Road
Westfield North Courtyard
Cumbernauld,
United Kingdom, G68 9HQ

Electrical and Mechanical Specifications

Measurement Output	UART
Supply Voltage	3.25V - 5.5V
Power Consumption (typ.)	<3.5mW @ 3.3V
Dimensions and Weight	31mm x 19.5mm x 8.7mm, 2.5g

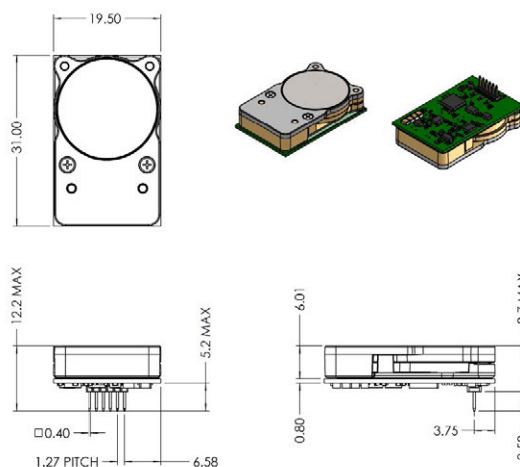### Operating Conditions

Operating Conditions - Temperature	0°C to 50°C
Operating Conditions - Humidity	0-95% RH, non-condensing
Storage Conditions - Temperature	-30°C to +70°C
Pressure Dependence	500mbar - 1500mbar
Sensor Lifetime	>15 years
Environmental Compliance	RoHS and REACH

Ordering Information

CozIR®-LP-X

X	Measurement Range
2000	2,000ppm
5000	5,000ppm
1	10,000ppm (1%)

Dimension Drawing - CozIR®- LP

Pin-Out Despription - CozIR® LP

Pin	Name	Type	Description
1	GND	Supply	Sensor ground
2	VDD	Supply	Sensor supply voltage
3	Rx_In	Digital Input	UART Receive Input
4	Tx_Out	Digital Output	UART Transmit Output
5	NC	Unused	Do not connect
6	NC	Unused	Do not connect

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