

# COZIR™ LP

## Low Power, Low Profile Carbon Dioxide Sensor

**COZIR LP** is a low profile, low power, high performance CO<sub>2</sub> sensor. Operating at a 2Hz update rate while only consuming 3mW<sup>5</sup>, its world leading power consumption make it ideally suited for battery operation and portable instruments. Based on proven GSS IR LED and Detector technology and innovative optical designs. **COZIR LP** is a third generation product from Gas Sensing Solutions Ltd – leaders in IR LED CO<sub>2</sub> sensing.

With measurement ranges of 0-2000ppm,\*0-5000ppm and 0-1% the **COZIR LP** Sensor is suitable for applications such as **Building Control** and **Indoor Air Quality**.

- Ultra-low Power 3mW
- Measurement ranges from 0 to 1%
- 3.3V supply
- Peak current only 33mA
- Commands set and electrical interface compatible with GSS COZIR sensor range.

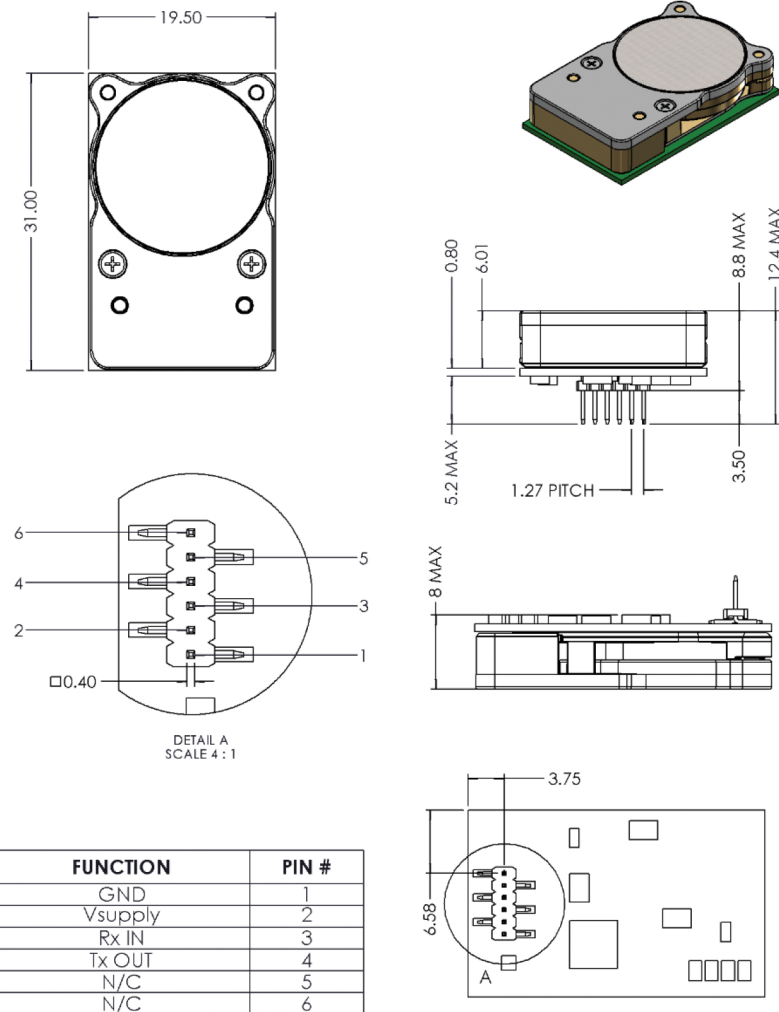


**COZIR™ LP CO<sub>2</sub> Sensor**  
**Model GC-0027 5,000ppm**

## Specifications

General Performance	
Start up time	First reading 1.2s after power on <sup>2</sup>
Operating Conditions	0°C to 50°C (Standard) -25°C to 55°C (Extended range) 0 to 95% RH, non-condensing
Recommended Storage	-30°C to +70°C
CO <sub>2</sub> Measurement	
Sensing Method	Non-dispersive infrared (NDIR) absorption Patented Gold-plated optics Proprietary GSS Solid-state source and detector
Sample Method	Diffusion
Measurement Range	0-5,000ppm. * Other ranges special order
Accuracy	±50 ppm +/- 3% of reading <sup>1</sup>
Calibration	Autocalibration <sup>6</sup>
Non Linearity	< 1% of FS
Pressure Dependence	0.13% of reading per mm Hg in normal atmospheric conditions.
Operating Pressure Range	950 mbar to 1050 mbar <sup>3</sup>
Response Time	2- 3 mins (Configurable via filter type and application) <sup>3</sup> Reading refreshed twice per second.

Electrical/ Mechanical	
<b>Power Input</b>	3.25 to 5.5V. (3.3V recommended). Peak Current 33mA <sup>5</sup> . Average Current <1mA <sup>5</sup> .
<b>Connector</b>	6-way 1.27mm header
<b>Power Consumption</b>	3 mW <sup>5</sup>
<b>Interface</b>	UART
<b>Weight</b>	5g
<b>Dimensions</b>	31mm x 19.5mm x 8mm <sup>7</sup>



**Note 1:** All measurements are at STP unless otherwise stated.

**Note 2:** There is no sensor warm-up as the sensor has no heated parts. Longer integration time will reduce measurement noise.

**Note 3:** External Pressure calibration required.

**Note 4:** User Configurable Filter Response.

**Note 5:** Power measurements with sensor operated in polling mode.

**Note 6:** Autocalibration is enabled by default on COZIR-LP. For correct operation, the sensor must experience concentrations close to fresh air. For details request the application note "COZIR Autocalibration".

**Note 7:** Excludes height of connector pins.

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