

COZIR™ LP

Low Power Consumption, Small Size Carbon Dioxide Sensor

The **COZIR LP** is a compact, low-power, high-performance carbon dioxide (CO₂) sensor with a refresh rate of 2Hz and a power consumption of just 3mW⁵. Boasting world-leading low-power characteristics, this sensor is ideally suited for battery-powered and portable devices. Built on the proven GSS IR LED technology and featuring innovative optical design, **COZIR LP** represents the third-generation product from GSS Ltd., a global leader in IR LED-based carbon dioxide detection systems.

Because the **COZIR LP** sensor has a measurement range of 0-2000ppm, 0-5000ppm and 0-1%, it is well suited for applications such as building control and indoor air quality detection.

- Ultra low power consumption 3mW
- Range 0-1%
- 3.3V power supply
- The peak current is only 33mA
- Command set and electrical interface match GSS COZIR sensor range

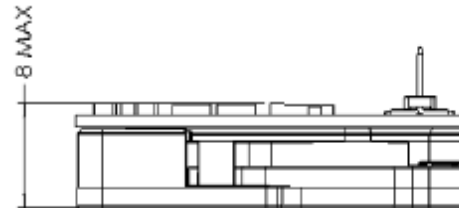
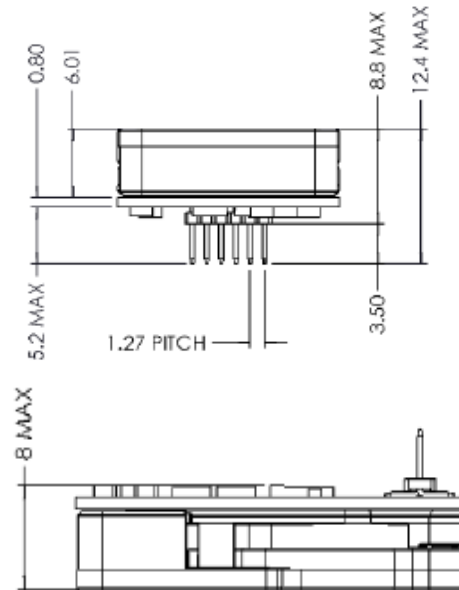
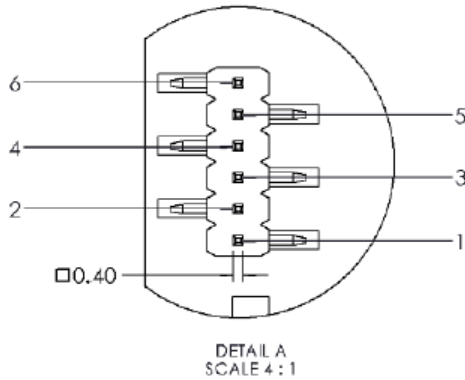
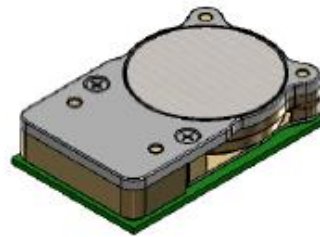
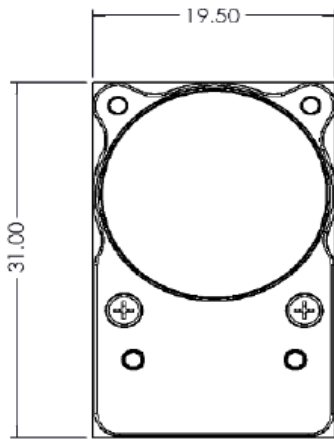


COZIR™ LP CO₂ 传感器

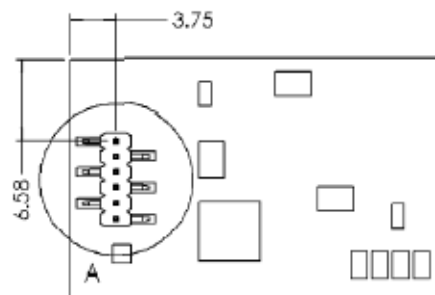
Specifications

fundamental characteristics	
start time	The initial reading after power on is 1.2s ²
going	0°C-50°C (standard) 0-95%RH (no condensation)
Recommended storage temperature	-30°C~+70°C
CO2 measurement	
test method	Non-dispersive infrared (NDIR) absorption technology Optical technology of gold plate GSS solid state power and detector technology
method of sampling	spread
range	The standard is 0-5000ppm, and 0-2000ppm and 0-1% can be selected according to the need.
accuracy	± 50 ppm + / -3% of the reading ¹
verification	Automatic verification ⁶
noliner	<1% of full scale
pressure dependence	Normal atmospheric pressure is 0.13% of the reading per millimeter of mercury
Working pressure	950 mbar-1050 mbar ³
response time	2-3 minutes (depending on filter type and application debugging) ⁴ readings refresh twice per second.

Electrical/mechanical	
power output	3. 25V-5.5V (recommended 3.3V). Peak current 33mA ⁵ . Average current <1mA ⁵ .
junction	6 Road 1.27mm connector
power consumption	3mW ⁵
joggle	UART
weight	5g
graphic model	31mm × 19.5mm × 8mm ⁷



function	pin #
GND	1
V _{supply} (supply voltage)	2
R _x input	3
T _x output	4
N/C (not connected)	5
N/C (not connected)	6



Note 1: All values are measured at standard atmospheric pressure, unless otherwise stated.

Note 2: Since there is no heating component, the sensor does not preheat. The longer the measurement time, the lower the measurement interference.

Note 3: External pressure needs to be checked.

Note 4: The filter response can be debugged by the user.

Note 5: Power consumption measurements are taken when the sensor is operating in polling mode.

Note 6: The COZIR-LP is enabled by default for automatic calibration. To ensure proper operation, the sensor must be exposed to an environment with oxygen concentrations approaching those found in fresh air. For detailed application requirements, consult the "COZIR Automatic Calibration" section. **Note 7:** Connector pin length is not included.

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