

# ExplorIR<sup>®</sup>-M

**GSS**  
Gas Sensing Solutions

- Miniature footprint CO<sub>2</sub> Sensor
- Wide range measurements
- Fit and forget, fully autonomous operation
- Long life, >15 years



## About the ExplorIR<sup>®</sup>-M

ExplorIR<sup>®</sup>-M is a miniature CO<sub>2</sub> sensor, capable of measuring up to 100% concentration. Its compact and robust design enables easy integration into gas monitoring and detection systems.

ExplorIR<sup>®</sup>-M is specifically designed for applications that require the sensor to operate reliably in extreme environmental conditions, especially where the pressure, temperature or vibration regime is particularly harsh. The sensor is designed to take 2 readings per second, making it ideal for applications where gas concentrations are rapidly changing.

The ExplorIR<sup>®</sup>-M uses GSS patented solid-state optical technology, which enables the sensor to provide high accuracy CO<sub>2</sub> measurement capability over an extended lifetime.

## Features

- Measures up to 100% CO<sub>2</sub> concentration
- Low power CO<sub>2</sub> sensor
- Solid-state LED optical technology
- Vibration and shock resistant
- UART interface
- Built-in auto-zero function

## Applications

- Industrial Safety
- Incubators
- Transportation
- Refrigeration
- Horticulture and Agriculture

# Explor<sup>®</sup>IR-M

## Ordering Information

EXPLORIR - M - [X] - [X]

X	Temperature
E	Extended
Blank	Standard

X	Measurement Range
5	0-5%
20	0-20%
60	0-60%
100	0-100%

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## CO<sub>2</sub> Sensor Specifications

<b>Measurement Ranges</b>	0-5%, 0-20%, 0-60%, 0-100%
<b>Accuracy (typ.)</b>	0-60% ±(70ppm, +5% of reading) 0-100% ±(300ppm, +5% of reading)
<b>Time to 1<sup>st</sup> Reading</b>	<1.2 Seconds
<b>Response Time</b>	<30 Seconds (Diffusion Limited)
<b>Readings per Second</b>	2
<b>Sample Method</b>	Solid-state LED NDIR Diffusion

## Electrical and Mechanical Specifications

<b>Measurement Output</b>	UART
<b>Supply Voltage</b>	3.25V – 5.5V
<b>Power Consumption (typ.)</b>	<3.5mW @ 3.3V
<b>Dimensions and Weight</b>	ø20.9mm x 18.1mm, 4g

## Operating Conditions

<b>Operating Conditions – Temperature</b>	0°C to 50°C (Standard) -25°C to 55°C (Extended)
<b>Operating Conditions - Humidity</b>	0-95% RH, non-condensing
<b>Storage Conditions - Temperature</b>	-40°C to +70°C
<b>Ambient Operating Pressure</b>	500mbar to 2bar
<b>Sensor Lifetime</b>	>15 years
<b>Environmental Compliance</b>	RoHS and REACH