

# ExplorIR<sup>®</sup>-W

- Flexible, small form-factor CO<sub>2</sub> sensor
- Ideal for battery-powered applications
- Fit and forget, fully autonomous operation
- Long life, >15 years

**GSS**  
Gas Sensing Solutions



## About the ExplorIR<sup>®</sup>-W

The ExplorIR<sup>®</sup>-W is a small footprint low power CO<sub>2</sub> sensor designed for applications where space is at a premium. The combination of small size, low power and high accuracy makes this sensor suitable for portable, battery powered personal safety equipment.

The ExplorIR<sup>®</sup>-W has a very wide dynamic range and is capable of measuring CO<sub>2</sub> gas concentrations up to 100%, without compromising measurement accuracy or responsiveness.

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>-W uses patented NDIR solid-state LED optical technology that delivers consistent and accurate CO<sub>2</sub> measurement performance over the lifetime of the sensor.

## 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
- Optional temperature and relative humidity sensor
- UART data interface
- Built-in auto-zeroing
- Optional flow through adaptor
- Optional voltage output

## Applications

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

# Explor<sup>®</sup>IR-W

## Ordering Information

EXPLORIR - W - X - X X X - X

x	<b>Flow Adaptor</b>	x	<b>Voltage</b>	x	<b>Measurement Range</b>
X	Without Flow Adaptor	V	Included	2000	0-2000ppm
F	With Flow Adaptor	Blank	Without	5000	0-5000ppm
				1	0-1%

  

x	<b>Temperature</b>	x	<b>T&amp;RH%</b>
E	Extended	H	Included
Blank	Standard	Blank	Without

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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>	40mm x 25mm x 23mm, 8g

## 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