



High-Speed CO₂ sensor

Up to 20 measurements per second

The SprintIR®-W is part of a range of CO₂ sensors designed to deliver unprecedented high-speed measurement capability.

The SprintIR®-W will take up to 20 readings per second, making it ideal for applications that require individual measurements at high repetition rates or where the CO₂ concentration is changing rapidly.

About SprintIR®-W

The SprintIR®-W is fitted with a standard flow-through adaptor so the CO₂ gas can be passed over the optical sensor at high speed. Other customised adaptors are also possible depending on the installation requirements.

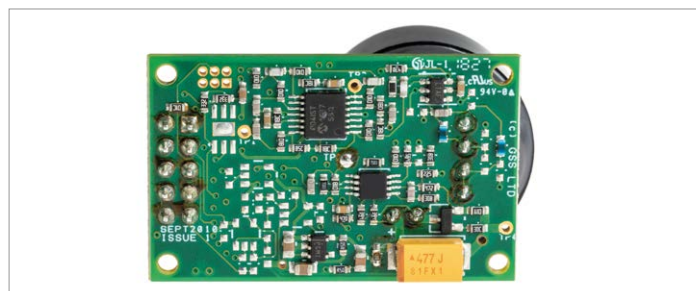
The SprintIR®-W uses patented NDIR solid-state LED optical technology enabling the sensor to respond to rapidly changing CO₂ without compromising parametric performance.

Features

- 20 readings per second
- Optional customised flow adaptors
- Low-power CO₂ sensor
- Solid-state LED optical technology
- UART data interface
- Built-in auto-calibration
- Optional diusion sampling

Applications

- Healthcare
- Food Packaging
- Sport Science
- CO₂ Fire Suppression Deployment



CO₂ Sensor Specifications

Measurement Ranges	0-5%, 0-20%, 0-60%, 0-100%
Accuracy (typ.)	0-60% ±(70ppm +5% of reading) 0-100% ±(300ppm +5% of reading)
Time to 1st Reading	<0.5 seconds
Response Time	Flow dependent
Readings per Second	20
Sample Method	Solid-state LED NDIR Diffusion

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SprintIR[®] Series

Further models from our series



SprintIR[®]- 6S
High-Speed
CO₂ Sensor



SprintIR[®]- R
High-Speed
CO₂ Sensor

Electrical and Mechanical Specifications

Measurement Output	UART
Supply Voltage	3.25V - 5.5V
Power Consumption (typ.)	35mW @ 3.3V
Dimensions and Weight	42.45mm x 25mm x 37mm

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 - 10bar (without flow adaptor)
Sensor Lifetime	>15 years
Environmental Compliance	RoHS and REACH

Ordering Information

SPRINTIR-W-X-XX-X

X	Measurement Range
5	0-5%
20	0-20%
60	0-60%
100	0-100%
X	Temperature and RH
H	Included
Blank	Not included
X	CO ₂ Voltage Output
V	Included
Blank	Not included
X	Flow Adaptor
F	Included
X	Not included, membrane only



Discover also our further product series

CozIR® Series



Ultra-Low-Power CO₂ sensors

ExplorIR® Series



Small footprint CO₂ Sensors



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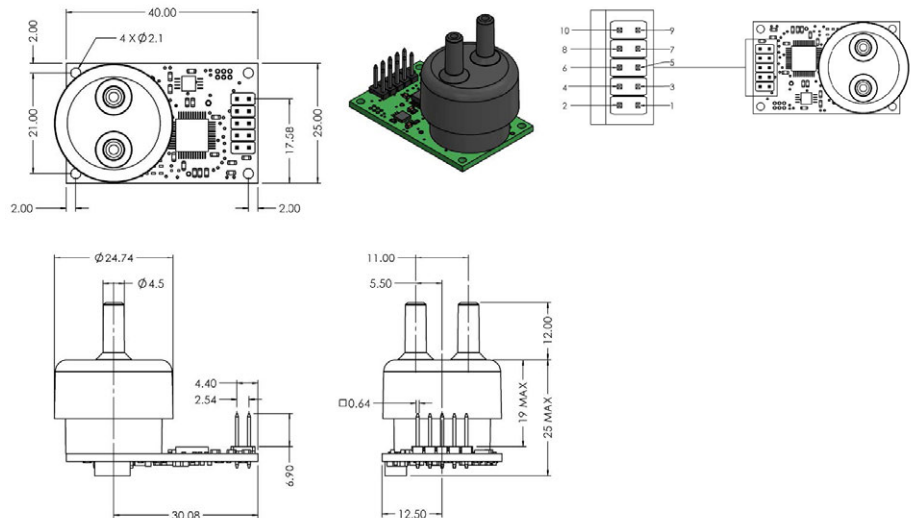
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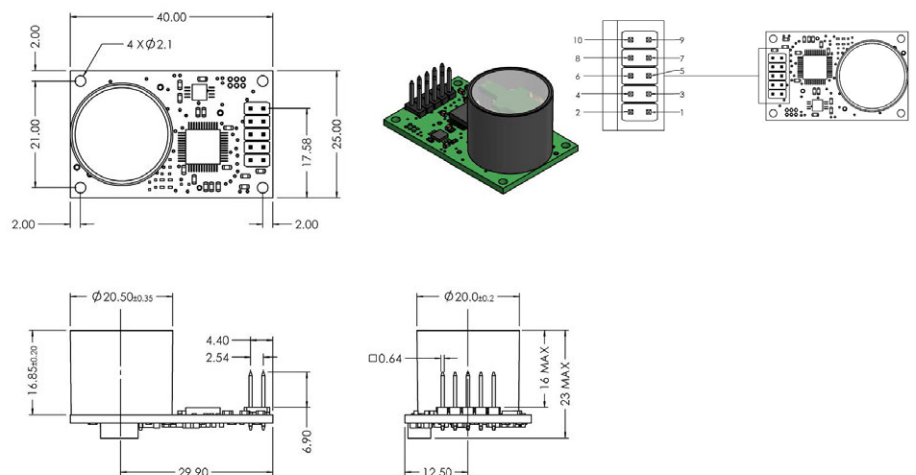
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Dimension Drawing - SprintIR® - W with flow port adaptor



Dimension Drawing - SprintIR® - W with membrane cover



Pin-Out Description - SprintIR® - W

Pin	Name	Type	Description
1	GND	Supply	Sensor ground
2	NC	Unused	Do Not Connect
3	VDD	Supply	Sensor supply voltage
4	GND	Supply	Sensor ground
5	Rx_In	Digital Input	UART Receive Input
6	GND	Supply	Sensor ground
7	Tx_Out	Digital Output	UART Transmit Output
8	NITROGEN_ZERO	Digital Input	Set low to initiate a Zero in Nitrogen Calibration Cycle
9	ANALOGUE_OUTPUT	Analogue Output	CO ₂ Level (Optional)
10	FRESH_AIR_ZERO	Digital Input	Set low to initiate a Zero in Fresh Air Calibration Cycle

