



## High-Speed CO<sub>2</sub> sensor

### Up to 50 measurements per second

The SprintIR<sup>®</sup>-R is part of a range of CO<sub>2</sub> sensors designed to deliver unprecedented high-speed measurement capability.

The SprintIR<sup>®</sup>-R will take up to 50 readings per second, making it ideal for applications that require individual measurements at high repetition rates or where the CO<sub>2</sub> concentration is changing rapidly.

#### About SprintIR<sup>®</sup>- R

The SprintIR<sup>®</sup>-R is fitted with a standard flow-through adaptor so the CO<sub>2</sub> gas can be passed over the optical sensor at high speed. Other customised adaptors are also possible depending on the installation requirements.

The SprintIR<sup>®</sup>-R uses patented NDIR solid-state LED optical technology enabling the sensor to respond to rapidly changing CO<sub>2</sub> without compromising parametric performance.

#### Features

- 50 readings per second
- Optional customised flow adaptors
- Low-power CO<sub>2</sub> sensor
- Solid-state LED optical technology
- UART data interface
- Built-in auto-calibration

#### Applications

- Healthcare
- Food Packaging
- Sport Science



#### CO<sub>2</sub> 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	<0.2 seconds
Response Time	Flow dependent
Readings per Second	50
Sample Method	Solid-state LED NDIR Diffusion

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## SprintIR<sup>®</sup> Series

Further models from our series



SprintIR<sup>®</sup>- 6S  
High-Speed  
CO<sub>2</sub> Sensor



SprintIR<sup>®</sup>- W  
High-Speed  
CO<sub>2</sub> Sensor

### Electrical and Mechanical Specifications

Measurement Output	UART
Supply Voltage	3.25V - 5.5V
Power Consumption (typ.)	100mW @ 3.3V
Dimensions and Weight	ø23.8mm x 24mm, 7.5g

### Operating Conditions

Operating Conditions - Temperature	0°C to 50°C
Operating Conditions - Humidity	0-95% RH, non-condensing
Storage Conditions - Temperature	-40°C to +70°C
Pressure Dependence	500mbar - 2bar
Sensor Lifetime	>15 years
Environmental Compliance	RoHS and REACH

### Ordering Information

#### SPRINTIR-R-X-X

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

X	Gas Cover
Blank	Flow through adaptor as standard
M	Membrane instead of flow adaptor

Discover also our further product series

## CozIR® Series



Ultra-Low-Power CO<sub>2</sub> sensors

## ExplorIR® Series



Small footprint CO<sub>2</sub> Sensors



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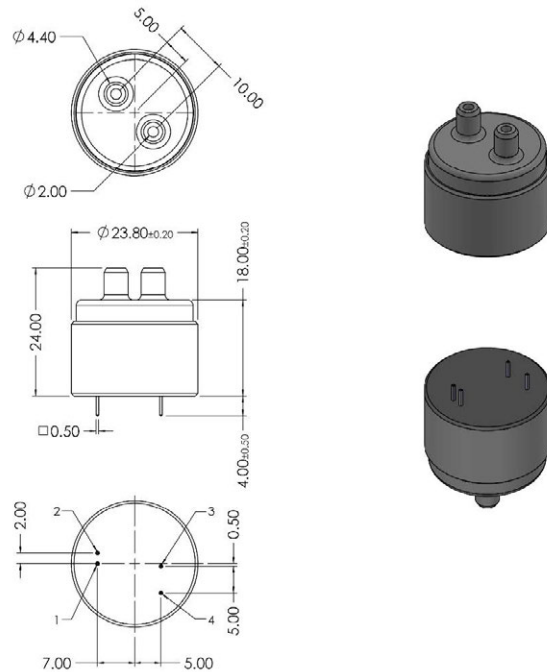
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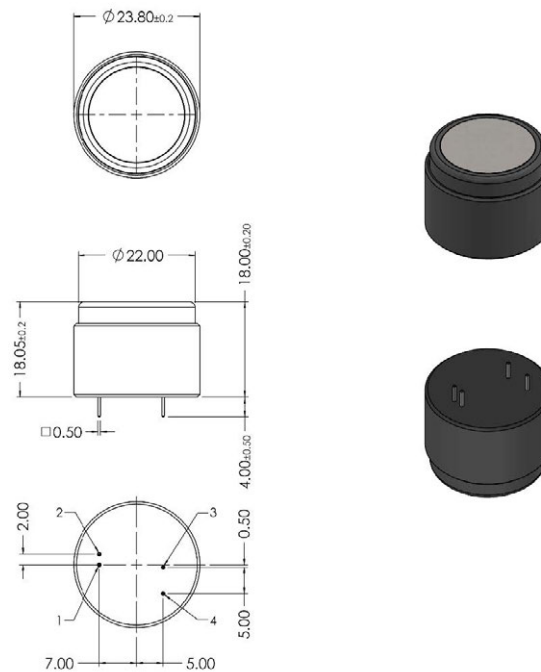
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### Dimension Drawing - SprintIR® - R



### Dimension Drawing - SprintIR® - R with membrane cover



### Pin-Out Description - SprintIR® - R

Pin	Name	Type	Description
1	Rx_In	Digital Input	UART Receive Input
2	Tx_Out	Digital Output	UART Transmit Output
3	GND	Supply	Sensor ground
4	VDD	Supply	Sensor supply voltage