



High-Speed CO₂ sensor

Up to 50 measurements per second

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

The SprintIR®-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 CO₂ concentration is changing rapidly.

About SprintIR®-R

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

Features

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

Applications

- Healthcare
- Food Packaging
- Sport Science



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	<0.2 seconds
Response Time	Flow dependent
Readings per Second	50
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®-W
High-Speed
CO₂ 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

SprintIR®- R



Discover also our further
product series

CozIR® Series



Ultra-Low-Power CO₂ sensors

ExplorIR® Series



Small footprint CO₂ Sensors



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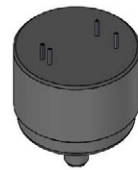
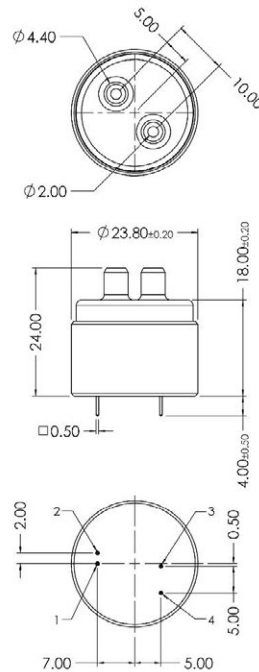
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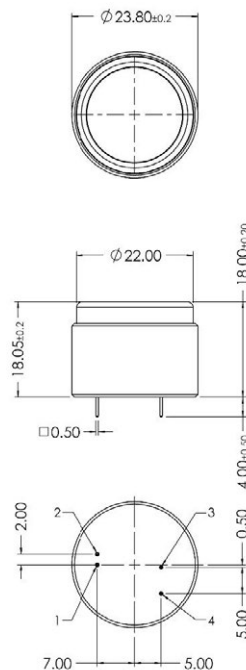
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Dimension Drawing - SprintIR®- R



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



We control GASES - since 1978

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