

## SprintIR

### High Speed CO2 Sensor

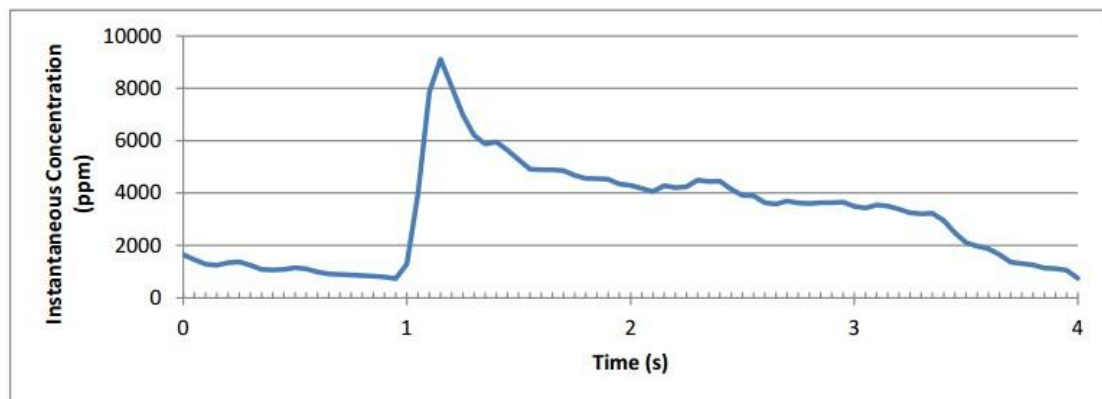
SprintIR is a high-speed CO2 sensor (20Hz) for capturing rapid changes in CO2 concentration, such as metabolic assessment and analytical instruments.

- High speed detection (20Hz)
- The measurement range is from 0 to 100%
- Power supply voltage 3.3v
- Low power consumption 35mW
- Ventilation ducts optional



normalized form

Type with air vent pipe



#### Technical Parameter

Overall performance	
preheating time	<1 minute
work environment	0°C to 50°C (standard) -25°C to 55°C (expandable range) 0 Up to 95% RH, non-condensing
storage temperature	-30°C to +70°C
CO2 measurement	
Sensing methods	Non-dispersive infrared light absorption technique (NDIR) Gold-plated optical path and all-solid-state light source and detector technology
sample mode	Gas diffusion or pump type
measuring range	0-5%, 0-20%, 0-60%, 0-100%
definition	± 70ppm±/-5% reading
Measuring noise	<10% reading, without digital filter.
nolinear	<1%FS
Pressure dependency	0.1% reading per mmHg at normal pressure
working pressure range	950mbar to 1050mbar2
Electrical/mechanical characteristics	
power input	3.2V to 5V(3.3V recommended) Peak current 100mA Average current <15mA
power dissipation	35mW

Mode of output	UART																								
<p>Size and external connections Terminal post 2×5 0.1", 1 管脚标识在图上.</p>																									
<table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th>pin</th> <th>function</th> <th>pin</th> <th>function</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>GND</td> <td>2</td> <td>N/C</td> </tr> <tr> <td>3</td> <td>+3.3V</td> <td>4</td> <td>0V</td> </tr> <tr> <td>5</td> <td>Rx</td> <td>6</td> <td>0V</td> </tr> <tr> <td>7</td> <td>Tx</td> <td>8</td> <td>Nitrogen purging and zeroing</td> </tr> <tr> <td>9</td> <td>N/C</td> <td>10</td> <td>Air tone adjustment</td> </tr> </tbody> </table>		pin	function	pin	function	1	GND	2	N/C	3	+3.3V	4	0V	5	Rx	6	0V	7	Tx	8	Nitrogen purging and zeroing	9	N/C	10	Air tone adjustment
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<p>2 Pin empty. Pin 4 and 6 are internally grounded and do not require external connections. The zero point function is used for hardware zero adjustment (all low level valid) and can also be controlled by sending commands (recommended). Typically, the pins connected to the digital interface are GND, 3.3V, Rx and Tx. Note that the voltage Vh on the serial Tx terminal is always 3V, regardless of the power supply voltage.</p>																									

**explanatory note :**

1. All measurements were taken under standard temperature and pressure conditions
2. Tablet calibration requires the elimination of pressure effects.
3. Users can configure the filter response.

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