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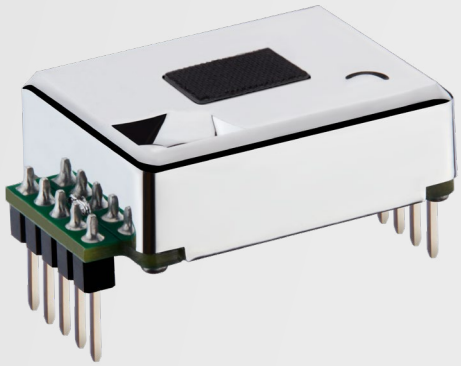
MTP40-F



NDIR CO2 Sensor

The MTP40-F carbon dioxide sensor is based on the NDIR (non-dispersive infrared) principle. CO2 gas molecules can absorb infrared rays of a specific wavelength of about 4.26μm. When the light of this wavelength irradiates the gas sample, a corresponding change in light intensity will occur. From this, the concentration of CO2 gas is calculated.

The MTP40-F single-channel carbon dioxide sensor can resist interference from a variety of gases, has good gas selectivity, has built-in temperature compensation, and has higher measurement accuracy and stability.

Fresh air system

HVAC

Vehicle electronics

Smart home

Smart farm

Smart building

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Features

- No oxygen dependence
- Strong anti-interference ability
- Multiple ranges optional, full range linearization, digital output
- High sensitivity, high resolution, low power consumption
- Built-in temperature compensation, high detection accuracy
- Good stability and long service life

Product parameters

Principle	NDIR
Detect concentration range	400~5000ppm
Detect interval	2s
Detect accuracy	± (50ppm + 5% reading data)
Working current	300mA peak current, 4mA normal operating current, 13mA average operating current
Response time	T_{90}=90s
Working voltage	4.2V~5.5V
Communication Interface	Uart /IIC
PWM Output	Period：1004ms，Pulse：2ms-1002ms（0~5000ppm）
Alarm Output	Concentration>1000ppm output 1, Concentration<800ppm output 0, The pin is in open-drain output mode and cannot sink current.
Self-calibration period	The first self-calibration period after power-on is 24 hours, and the subsequent self-calibration period is 7 days.
Working temperature	0~50° C
Working humidity	0~90% RH（non condensation）
Storage conditions	-20~60° C
Size	32.5*20*8.5mm（max dimensions）

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