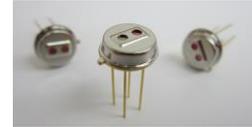


NDIR CO2 Dual Channels Gas Sensor

OGS-335

Revision Date: 2016/05/03 (Rev.02)



Introduction

The OGS-335 is a dual channels thermopile device having an output signal voltage directly proportional to the incident infrared (IR) radiation power. Two infrared narrow band pass filters in front of the sensor provide CO2 gas absorption signal and reference signal simultaneously.

Features

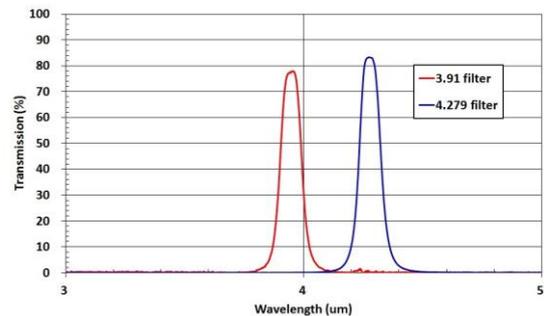
- Thermistor temperature reference included
- High sensitivity
- Fast response time
- Narrow band pass filters

Applications

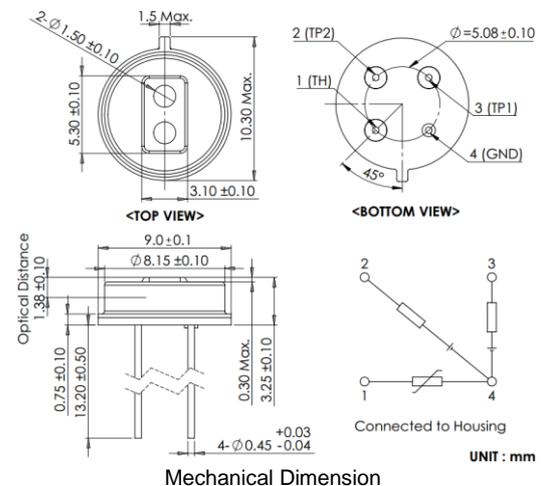
- NDIR gas sensing
- In door air quality monitoring
- Obstructive Sleep Apnea monitoring
- Industrial control
- Demand Control Ventilation (DCV)
- Climate Control for Automobiles
- Combustion Control for Furnace
- Greenhouse

Specifications

Model	OGS-335		
Target Gas	CO2		
Filter CWLs	4.279 um (TP2) 3.91 um (TP1)		
Window Size	1.5 mm in diameter		
Spacing of Window	2.5 mm		
Package Type	TO-5		
Parameter	Typical	Unit	Conditions
Sensitivity	61	V/W	323K, w/o filter
TC of sensitivity	0.06	%/K	25°C
Thermopile Voltage	3.7±1.1	mV	Tb:50°C, Ta:25°C w/o filter
Sensitive area	1.3x1.3	mm ²	
Resistance of thermopile	135±35	KΩ	25°C
TC of resistance	0.02	%/K	25°C
Time constant	30	ms	
Noise voltage	46	nV/Hz ^{1/2}	r.m.s. 300K
Noise Equivalent Power	0.76	nW/Hz ^{1/2}	323K, w/o filter
Normalized detectivity (D*)	1.7x10 ⁸	cm*Hz ^{1/2} /w	323K, w/o filter
Thermistor	Typical	Unit	Conditions
Resistance	100±5%	KΩ	25°C
β value	3964±0.5%	K	25°C/100°C



Transmittance of 4.279um filter and 3.91 um filter



Mechanical Dimension