

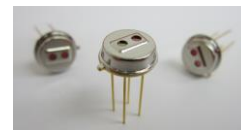
## NDIR SENSOR

## OGS-335F4

### NDIR CH<sub>4</sub> Dual Channels Gas Sensor

#### OGS-335F4

Revision Date: 2021/06/03 (Rev.01)



#### Introduction

The OGS-335F4 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 methane (CH<sub>4</sub>) gas absorption signal and reference signal simultaneously.

#### Features

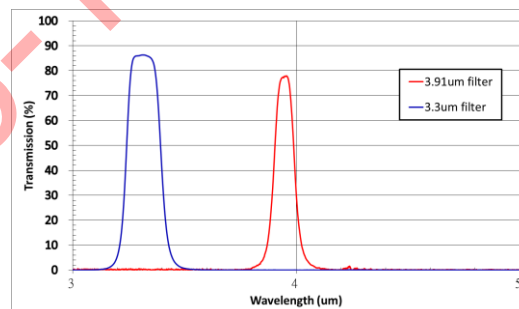
- Thermistor temperature reference included
- High sensitivity
- Fast response time
- Narrow band pass filters

#### Applications

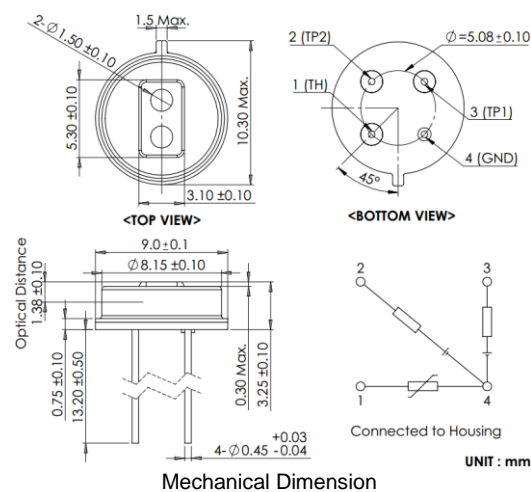
- Demand Control Ventilation (DCV)
- Indoor air quality monitoring
- Outdoor methane detection
- Gas leak detector for gas appliances
- Worker safety protection and monitoring

#### Specifications

Model	OGS-335F4		
Operating temperature	-20 ~ 100°C		
Storage temperature	-40 ~ 100°C		
Target Gas	methane (CH <sub>4</sub> )		
Filter CWLs	3.3 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 <sup>2</sup>	
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 <sup>1/2</sup>	r.m.s. 300K
Noise Equivalent Power	0.76	nW/Hz <sup>1/2</sup>	323K, w/o filter
Normalized detectivity (D*)	1.7x10 <sup>8</sup>	cm*Hz <sup>1/2</sup> /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 3.3um filter and 3.91 um filter



Mechanical Dimension