NDIR CO2 Gas Sensor

OGS-201F2

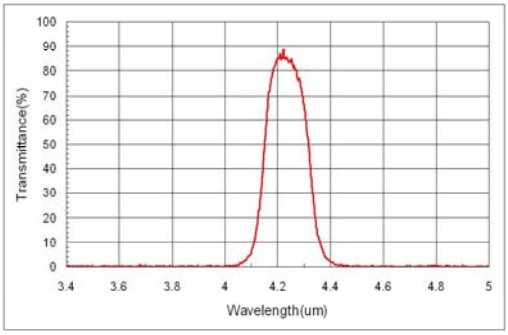
Revision Date: 2010/06/07

Introduction

OGS-201F2 is a thermopile device having an output signal voltage directly proportional to the incident infrared (IR) radiation power and largely independent of the wavelength. An infrared narrow band pass filter in front of the sensor makes the device sensitive to CO2 gas concentration.

Features & Applications

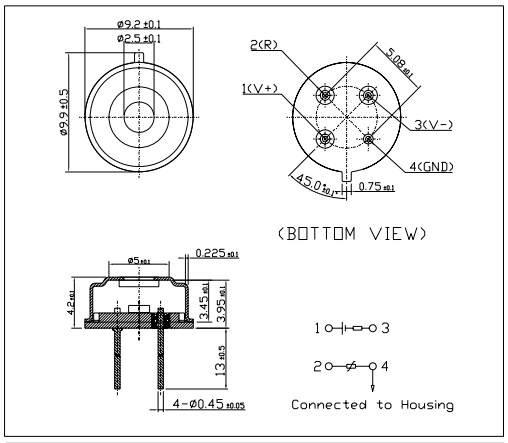
- Infrared absorption (NDIR) gas sensing
- Thermistor temperature reference included
- High sensitivity
- Fast response time

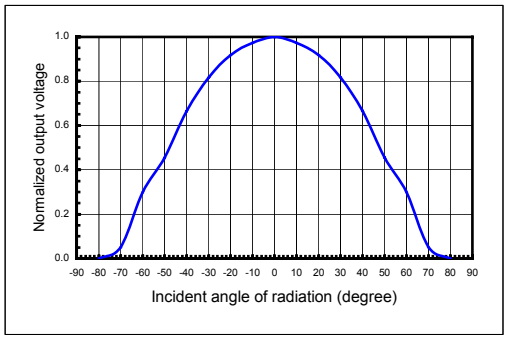


Transmittance of OGS-201F2

Specifications

Model	OGS-201F2		
Target Gas	CO2		
Filter CWL	4.26 um		
Window Size (mm)	2.5mm		
Package Type	TO-5		
Parameter	**Typical**	**Unit**	**Conductions**
Sensitivity	46	V/W	500K, Typical
TC of sensitivity	0.22±0.05	%/K	Typical
Sensitivity area	0.9X0.9	mm^2	
Resistance of thermopile	460±50	KΩ	25℃
TC of resistance	0.11±0.05	%/K	Typical
Time constant	20	ms	500K, Typical
Noise voltage	43	$nV/Hz^{1/2}$	r.m.s. 300K
NEP	0.95	$nV/Hz^{1/2}$	500K, Typical
Normalized detectivity (D*)	$0.9*10^8$	cm*Hz1/2/w	500K, Typical
Field of view	100	degree	At 50% target signal
Thermistor	**Typical**	**Unit**	**Conductions**
Resistance	30±3%	KΩ	25℃
β value	3811±0.5%	K	0℃/50℃





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