

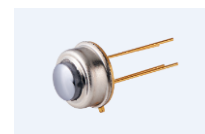
## THERMOPILE

## OTP-336B

### Thermopile Sensor

#### OTP-336B

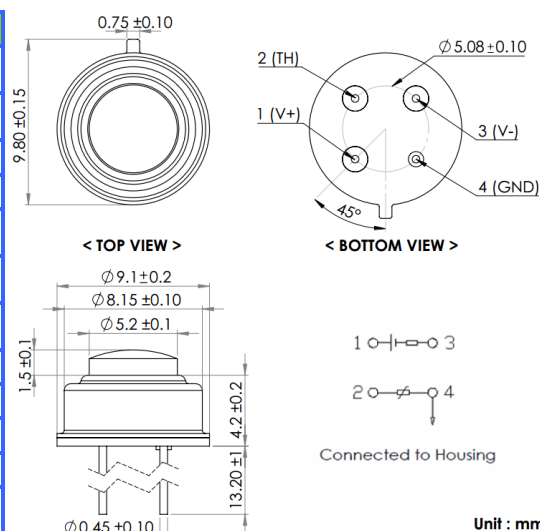
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The OTP-336B sensor is composed of 116 elements of thermocouple in series on a floating micro-membrane having an active area of diameter 1 mm. The size of the housing is a TO5-package with a window opening. The window is equipped with an IR-transmissible filter and a lens. The thermopile sensor provides nearly Johnson-noise-limited performance, which can be calculated by its ohmic series resistance. A thermistor with a lead connected to ground is also provided inside the TO package for ambient temperature reference.

- TO-5 metal housing with IR filter and lens
- Thermistor reference included
- Low temperature coefficient of sensitivity
- Ideally suited for Forehead thermometers, miniature pyrometer.

Parameter	Typ	Unit	Conditions
Operating temperature	-20~100	℃	
Storage temperature	-40~100	℃	
Sensitivity	235	V/W	※1
TC of sensitivity	-0.03	%/K	25℃
Thermopile Voltage	1.15±0.35	mV	※1
Active area in diameter	1	mm	
Resistance of thermopile	92±28	KΩ	25℃
TC of resistance	0.1±0.05	%/K	25℃
Time constant	24	ms	
Noise voltage	38	nV/Hz <sup>1/2</sup>	r.m.s, 25℃
NEP	0.16	nW/Hz <sup>1/2</sup>	※1
Normalized detectivity (D*)	6.1*10 <sup>8</sup>	cm*Hz <sup>1/2</sup> /W	※1
Thermistor resistance	100±5%	KΩ	25℃
β value	3964±0.5%	K	25℃/100℃
Field of view	20	°	@50% target signal
Cut on wavelength	5±0.3	μm	@25℃, 50% transmittance



※1 Test condition : Tb:50℃, Ta:25℃, 5-14μm filter with lens

