

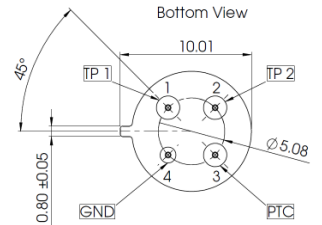
Preliminary



Two Channel Thermopile TS2x2001HT180

High Temperature Thermopile Dual-Detector in with Narrow Band Filters for Gas Analysis.

Type	TS2x2001HT180	
Active Area	2 x (0.6 x 0.6)	mm ²
Aperture	2 x (1.5 x 1.5)	mm ²
Resistance of Thermopile (at 25 °C)	80 ±15	kΩ
Temperature Coefficient of Resistance ¹	typ. -0.002	%/K
Noise Voltage (at 25 °C)	typ. 37	nV/Hz ^{1/2}
DC Output Voltage (at 38 μW/mm ²) ²	typ 0.95	mV
DC Sensitivity (at 38 μW/mm ²) ²	typ. 69	V/W
Crosstalk	typ. 0.2	%
Time Constant $t_{(0-63\%)}$ ²	typ. 6	ms
Filling Gas	Nitrogen	
Specific Detectivity D* (500K black body, DC) ²	1.11 x 10 ⁸	cmHz ^{1/2} /W
Noise Equivalent Power NEP	0.54	nW/Hz ^{1/2}
Filters	CO ₂ / Ref.	
Thermistor	PTC Ni1000	
Operation Temperature	-20 ... +180	°C
Mass	0.95	g
Housing	TO39 (modified)	



Pin Assignment:

- Pin 1 Output TP1
- Pin 2 Output TP2
- Pin 3 PTC
- Pin 4 Mass (GND)

¹ at temperature of +25 °C
² on air without windows

June 2010 – subject to change without notice

TS2x2001 Dual Thermopile Detector CO ₂ /Ref			
Gas	Channel	Filter	
		CWL [μm]	HBW [μm]
CO ₂	TP1	4.265	0.110
reference	TP2	4.000	0.080

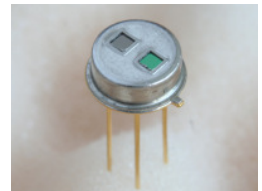
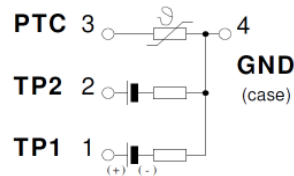
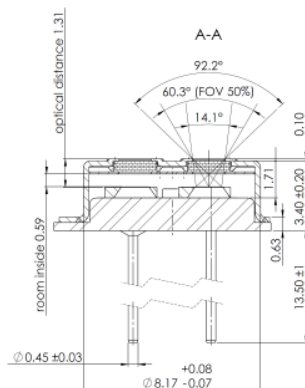
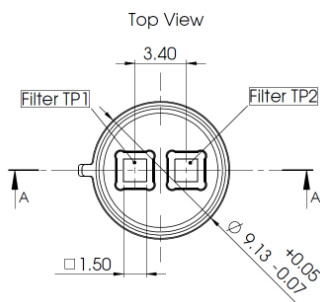
Order information :

TS2x2001 Dual Thermopile Detector CO₂/Ref

4594.50-F.01

Thermistor

1000 ± 2.5 Ω (at 0 °C)
6178 $\frac{+62}{-72}$ ppm/K



Optional parts:

IR-Source JSIR 450

Broadband IR emitters high performance for heavily absorbing media
Art.-Nr. 6350.01-3.01

Micro-Hybrid Electronic GmbH

Heinrich-Hertz-Straße 8
D - 07629 Hermsdorf

Tel.: +49 366 01 / 5 92 – 100
Fax: +49 366 01 / 5 92 – 110

Email: contact@micro-hybrid.de
Web: www.micro-hybrid.de