

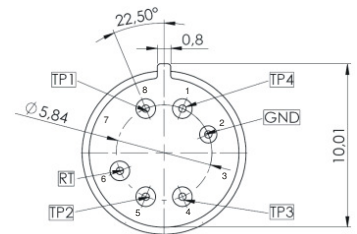
Preliminary

Four Channel Thermopile TS4x2001HT180



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

Type	TS4x2001HT180	
Active Area	4 x (0.6 x 0.6)	mm ²
Aperture	4 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
Time Constant $t_{(0-63\%)}^2$	typ. 6	ms
Filling Gas ³	Nitrogen	
Specific Detectivity D* (500K black body, DC) ²	typ. 1.11 x 10 ⁸	cmHz ^{1/2} /W
Noise Equivalent Power NEP	typ. 0.54	nW/Hz ^{1/2}
Filters	CO ₂ /CO/HC/Ref.	
Thermistor	PTC Ni1000	
Operation Temperature	-20 ... +180	°C
Mass	0.95	g
Housing	TO39 (modified)	



Pin Assignment:

- Pin 1 Output TP4
- Pin 2 Mass (GND)
- Pin 4 Output TP3
- Pin 5 Output TP2
- Pin 6 PTC
- Pin 8 Output TP1

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

June 2010 – subject to change without notice

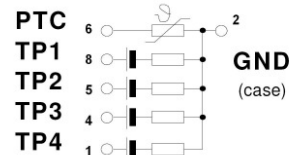
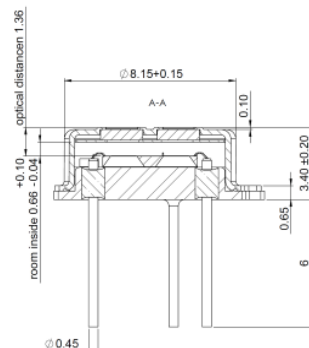
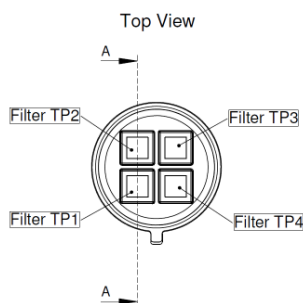
Gas	Channel	Filter	
		CWL (μm)	HBW (μm)
CO	TP1	4.650	0.180
CO ₂	TP2	4.265	0.110
HC	TP3	3.450	0.140
Reference	TP4	4.000	0.080

Order information:

TS4x2001HT180 Quad Thermopile Detector, Filter: CO₂ /CO/HC/Ref (N₂) Art.-Nr. 4594.33-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

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