



Preliminary

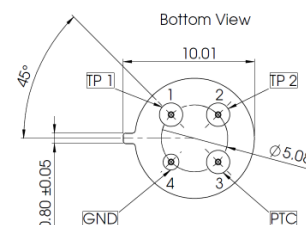
Two Channel Thermopile TS2x2001HT180

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 38μW/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) | |

¹ at temperature of +25 °C

² on air without windows



Pin Assignment:

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

| 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 |

June 2010 – subject to change without notice

Order information :

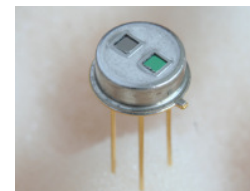
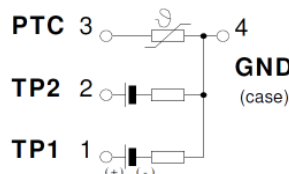
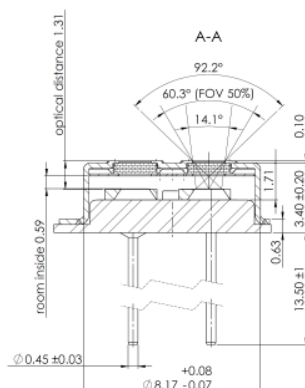
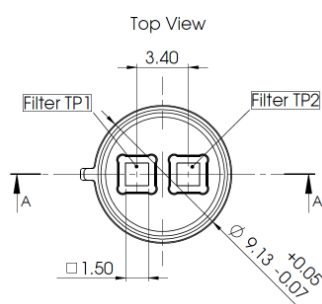
TS2x2001 Dual Thermopile Detector CO₂/Ref

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

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