



Four Channel Thermopile Detector TS4x200B-A-S1.5

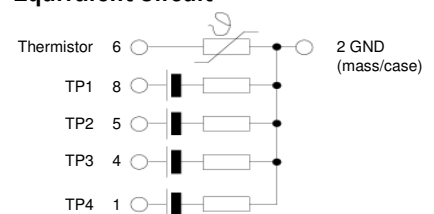
Thermopile quad-detector based on thin film technology with narrow band filters for gas analysis.



Active Area	4 x (1.2 x 1.2)	mm ²
Aperture	4 x (1.5 x 1.5)	mm ²
Number of Thermocouples per Channel	200	
Time Constant $t_{(0-63\%)}^1$	typ. 30	ms
DC Output Voltage ¹	typ. 5.5	mV
DC Sensitivity ¹	typ. 100	V/W
Temperature Coefficient of Sensitivity ²	typ. -0.4	%/K
Noise Voltage ³	typ. 33	nV/Hz ^{1/2}
Noise Equivalent Power NEP ¹	typ. 0.33	nW/Hz ^{1/2}
Specific Detectivity D* ¹	typ. 3.6 x 10 ⁸	cmHz ^{1/2} /W
Resistance of Thermopile ³	65 ± 15	kΩ
Temperature Coefficient of Resistance ²	typ. -0.03	%/K
Thermistor	1 - PTC Ni1000 2 - NTC 30k 3 - NTC 100k Technical specifications see document "thermistors".	
Filling Gas ⁴	N ₂ / Kr	
Filters	All MHE standard narrow band pass filters can be combined. Customized filters on request. For more information please see document "infrared filters".	
Operation Temperature	-20 ... +70	°C
Mass	1	g
Housing	T039 (modified)	



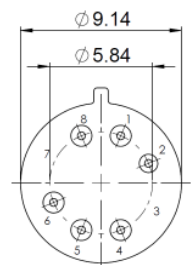
Equivalent Circuit



Bottom View

Pin Assignment:

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



Ordering Information:

TS4x200B-A-S1.5 - Thermistor (F) - Backfill Gas (GG) - Filters (H/H/H/H)
 f.e. TS4x200B-A-S1.5-1-Kr-E1/F1/G1/D1

¹ on air without windows, Blackbody T=500 K; E=38 W/m²

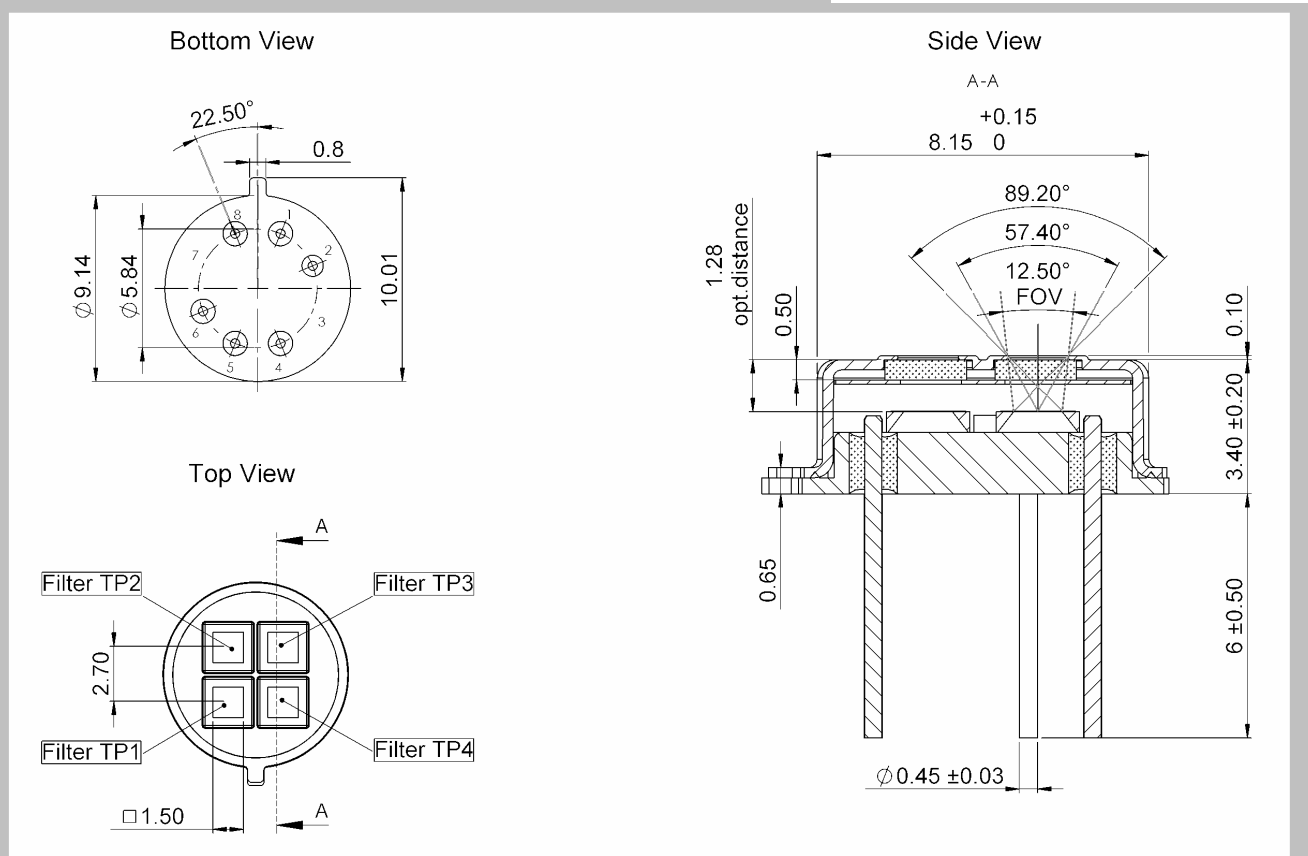
² in temperature range from +25 to +70 °C

³ at T_{amb}=25 °C

⁴ in case of Kr-SUNSTAR光电控制 http://www.sensor-ic.com/ TEL: 0755-83376543 FAX: 0755-83376182 E-MAIL: szss20@163.com
 by the factor 1.8. Decrease of NEP by the same factor. Other gases on customer's request.



Housing T039 package



Optional parts:

IR-Source JSIR 350 - Fast IR emitter based on thin film technology
Art.-Nr. 6351.01-3.01

IR-Source JSIR 450 - Broadband IR emitters high performance for heavily absorbing media
Art.-Nr. 6350.01-3.01