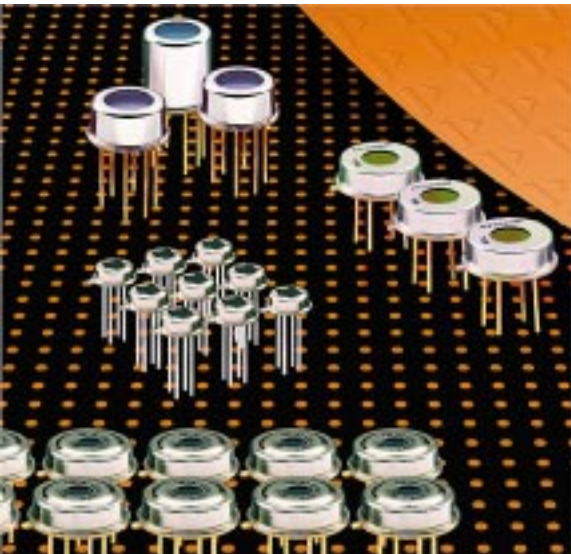


Thermopile Infrared Detectors

Quad Thermopile **TPS 4339**



Four individual thermopiles with different infrared bandpass filters in TO 5 housing for NDIR gas sensing – up to 4 gases possible

Thermistor temperature reference included

Internal aperture to avoid cross talk

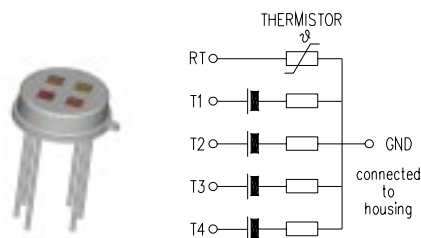
Standard gas filter sets for reference, CO, hydrocarbon, CO₂

The quad thermopile sensor consists of four single thermopile chips mounted in a TO 5 housing with a thermistor as temperature reference. The window size is 1.5 x 1.5 mm² each. Due to the overall small sensor size the construction of a very compact equipment becomes possible.

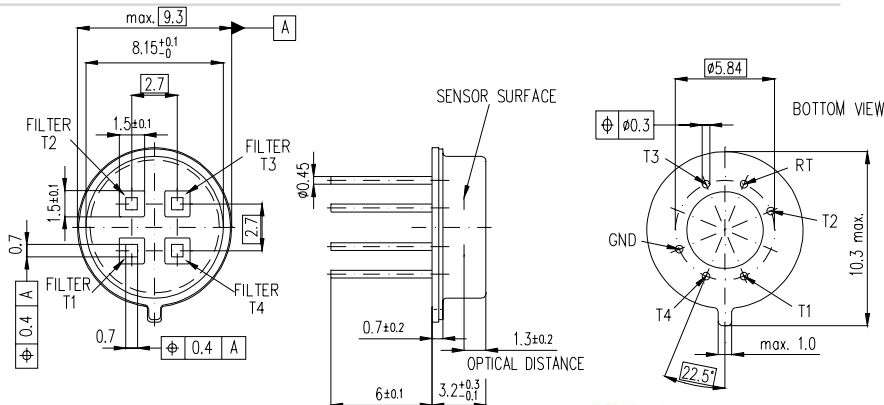
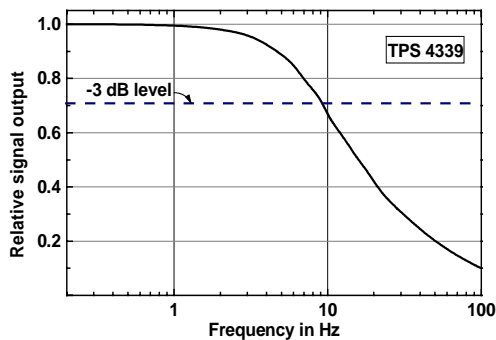
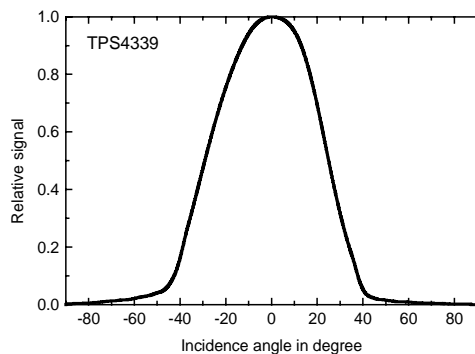
Applications in automotive exhaust gas control, multiple gas detection for the safety product market or air quality monitoring

For further information please refer to the TPS 4339 product note

Parameters	TPS 4339		units	condition
	typical			
Sensitive area	4x 0.7 x 0.7		mm ²	absorbing area
Window size	1.5 x 1.5		mm ²	each channel
DC sensitivity	75		V/W	500K BB w/o filter
Resistance	75		kΩ	
Noise	21		nV/√Hz	r.m.s. 300K
NEP	0.28		nW/√Hz	500K BB w/o filter
D*	1.6 x 10 ⁸		cm√Hz/W	500K BB w/o filter
TC of sensitivity	0.02		%/K	
TC of resistance	0.02		%/K	
Time constant	25		ms	
Operating temperature	-40	100	°C	non permanent
Storage temperature	-40	100	°C	non permanent
Thermistor resistance	100		kΩ	25°C
beta	3964		K	25°C/100°C
Field of view	4x 60		°	at 50% points



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