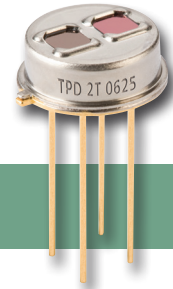


# THERMOPILE DETECTORS FOR GAS SENSING



## TPD 2T 0625 – Dual Channel Thermopile

### Applications

- Gas sensing and monitoring

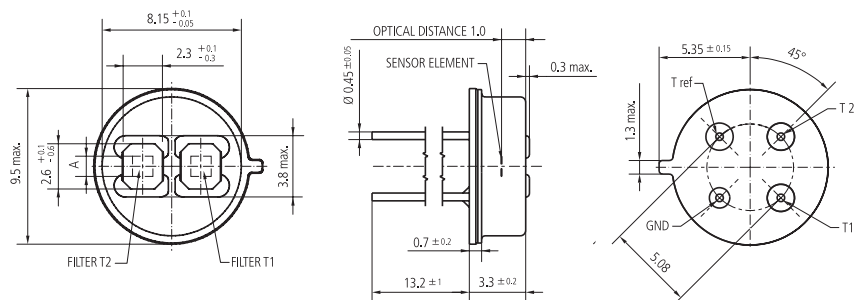
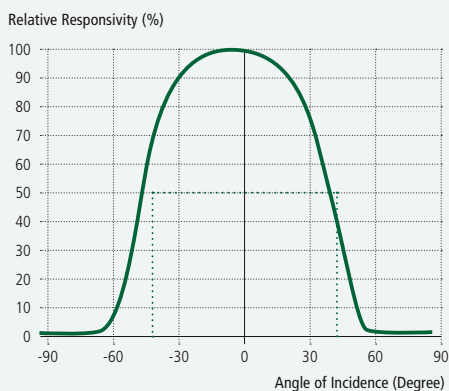
### Features and Benefits

- High sensitivity
- TO-39 metal housing
- Thermistor included
- Two narrow band pass filters

### Product Description

This specially designed detector offers dual channel performance in a TO-39 housing with two individual optical windows. Typically one window is fitted with a reference filter G20, where as the other window is fitted with a narrow band pass filter selected for a specific gas (see page 7 of this catalog for available types). The TPD 2T 0625 is also equipped as standard with an internal thermistor as temperature reference for thermopile temperature compensation.

### Field of View



### TPD 2T 0625 – Dual Channel Thermopile

Parameter	Symbol	0625	Unit	Remark
Sensitive area	A	1.2 x 1.2	mm	Absorber area
Sensitive area	A	1.4	mm <sup>2</sup>	Absorber area
Thermopile resistance	R <sub>TP</sub>	50 ... 110	kΩ	25° C
Responsivity	R	33	V/W	500° / 1Hz / without IR-filter
Time constant	t	27	ms	
Noise voltage	V <sub>N</sub>	36	nV / √Hz	25° C
Specific detectivity	D*	1.1	10 <sup>8</sup> cm / Hz / W	25° C
Temp. coefficient of resistance	TC <sub>RTP</sub>	0.03	% / K	
Temp. coefficient of responsivity	TC <sub>R</sub>	-0.05	% / K	
Field of view	FoV	87	Degrees	At 50 % intensity points
Thermistor resistance (25° C)	R <sub>25</sub>	100	kΩ	25° C
Thermistor BETA-value	β	3964	K	Defined at 25° C / 100° C