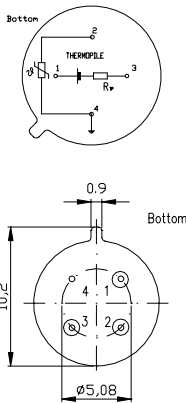


## HTS Series

## Thermopile Sensors for Remote Temperature Measurement and Gas Analysis

The HTS Series of CMOS compatible thermopile sensor chips in a TO39 size transistor housing, features good sensitivity, small temperature coefficient of sensitivity and high reproducibility and reliability. The smallest chip TP1 is well suited for temperature measurements which require a precise measuring spot whereas the chip type TP3 is optimized for highest signal. Additionally Heimann Sensor can offer integrated thermopile sensors (HIS series) combining a thermopile sensor chip with an ASIC in a TO39 housing.

For smaller chip sizes please contact us directly.

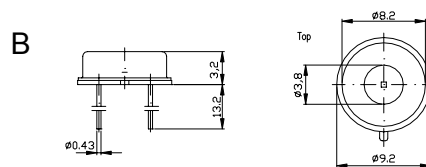
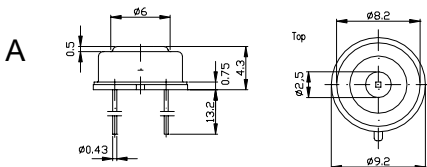


Parameter	HTS A11	HTS A1c1	HTS A21 B21	HTS A31 B31	Unit
element size	0.61 <sup>2</sup>	0.76 <sup>2</sup>	1.2 <sup>2</sup>	2.1 <sup>2</sup>	mm <sup>2</sup>
voltage response <sup>1</sup>	22	30	63	115	V mm <sup>2</sup> /W
sensitivity <sup>1</sup>	58	52	44	26	V/W
resistance R <sub>TP</sub> <sup>2</sup>	86	75	84	88	kOhm
TC of resistance R <sub>TP</sub> <sup>2</sup>	0.02	0.02	0.02	0.02	% / K
noise <sup>2</sup>	38	35	37	38	nV/ Hz <sup>1/2</sup>
detectivity <sup>1,2</sup>	0.9 10 <sup>8</sup>	1.1 10 <sup>8</sup>	1.4 10 <sup>8</sup>	1.5 10 <sup>8</sup>	cm Hz <sup>1/2</sup> / W
time constant	< 6	8	10	18	ms
thermistor reference <sup>2</sup>	100	100	100	100	kOhm
temp. coeff. of thermistor B <sup>3</sup>	3940	3940	3940	3940	K
field of view <sup>4</sup>	70	100	100	100	°
operating temperature	-20 ... 120				°C
storage temperature	-40 ... 120				°C

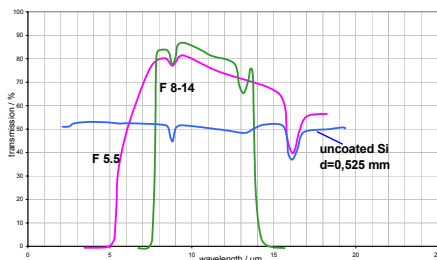
### Ordering Information:

HTS / cap aperture / chip type /  
w/wo thermistor / F desired filter  
e.g.: HTS A11 F5.5

- 1) without filter, T<sub>obj</sub>=100°C, DC
- 2) at T<sub>amb</sub>=25°C
- 3) 25°C, 50°C
- 4) deg at 50% signal level



### Filter types for temperature measurements



### Filter types for Gas Analysis

