

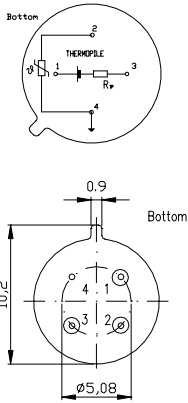


HTS Series

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.

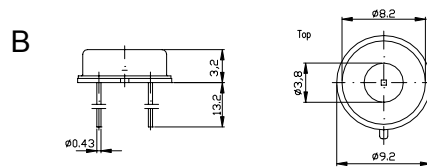
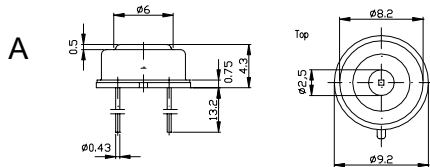


Parameter	HTS A11	HTS A1c1	HTS A21 B21	HTS A31 B31	Unit
element size	0.61 ²	0.76 ²	1.2 ²	2.1 ²	mm ²
voltage response ¹	22	30	63	115	V mm ² /W
sensitivity ¹	58	52	44	26	V/W
resistance R _{TP} ²	86	75	84	88	kOhm
TC of resistance R _{TP} ²	0.02	0.02	0.02	0.02	% / K
noise ²	38	35	37	38	nV/ Hz ^{1/2}
detectivity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

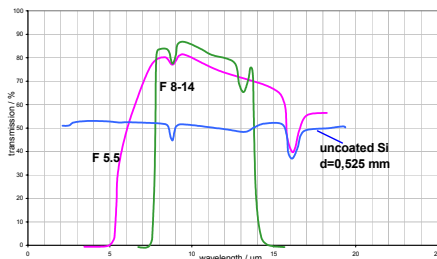
Ordering Information:

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

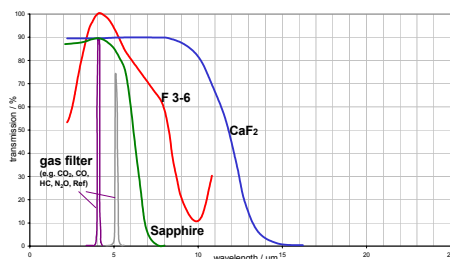
- 1) without filter, T_{obj}=100°C, DC
- 2) at T_{amb}=25°C
- 3) 25°C, 50°C
- 4) deg at 50% signal level



Filter types for temperature measurements



Filter types for Gas Analysis



Modifications reserved Rev.08 / 10.04.2008

HEIMANN Sensor GmbH

Grenzstr. 22
D-01109 Dresden, Germany

Contact / Customer Support

Phone 49 (0) 6123 60 50 30
Fax 49 (0) 6123 60 50 39

Internet

www.heimannsensor.com
e-mail: info@heimannsensor.com