

Typical Applications

- Contactless measurement of surface temperatures
- Temperature measurement of moving objects
- Remote measurement due to small angle of view
- Climate control
- Medical instruments



Introduction

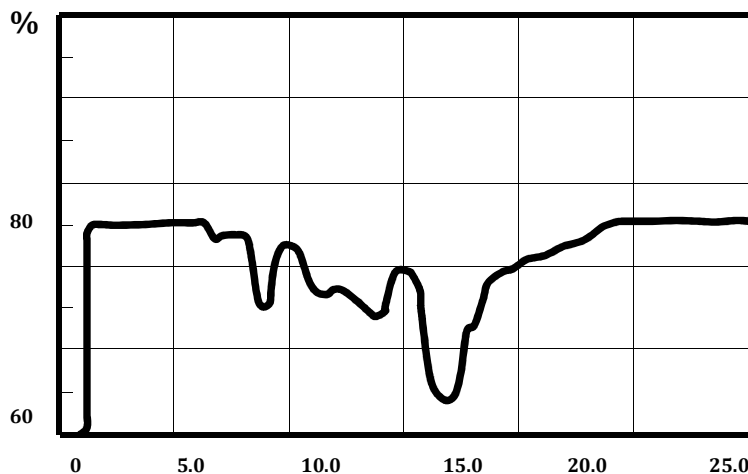
The Smartec infrared sensor type SMTIR9902SIL is a standard Smartec SMTIR9902 sensor equipped with a silicon lens for measuring radiation temperatures within a small angle of view (7.27°). The SMTIR9902SIL contains a NI1000 temperature sensor for measuring the temperature of the sensor itself. The temperature range of this internal sensor is -20 to 100 °C. The sensor is mounted in a modified TO-05 encapsulation.

Specifications

For parameters not specified here, the specifications of the SMTIR9902 are applicable.

Parameters	Typical	units
Number of thermojunctions	100	
Active area	0.50	mm ²
Resistance of thermopile	50 ± 15	KΩ
Time Constant	50 ± 10	ms (63%)
Temperature range (sensor)	-20 – 100	°C
Storage temperature	-40 – 100	°C
Reference Thermistor		
Resistance	1.000 ± 0.004	KΩ (@ 0°C)

FILTER(characteristic)



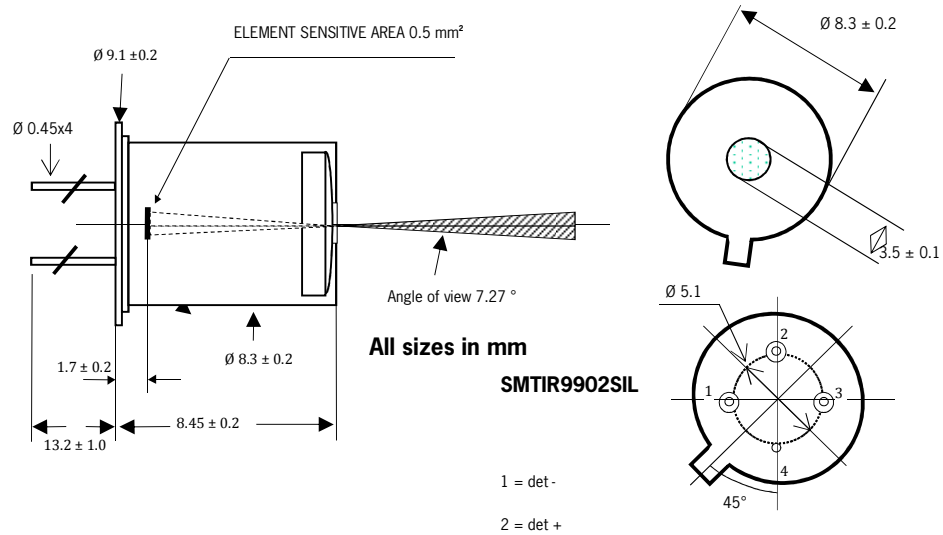
INFRARED SENSOR WITH SILICON LENS SMTIR9902SIL

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reference
infrared sil n

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Dimensions



Ordering code

SMTIR9902sil Infrared sensor with Ni sensor and silicon lens

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