

### Typical Applications

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



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### Introduction

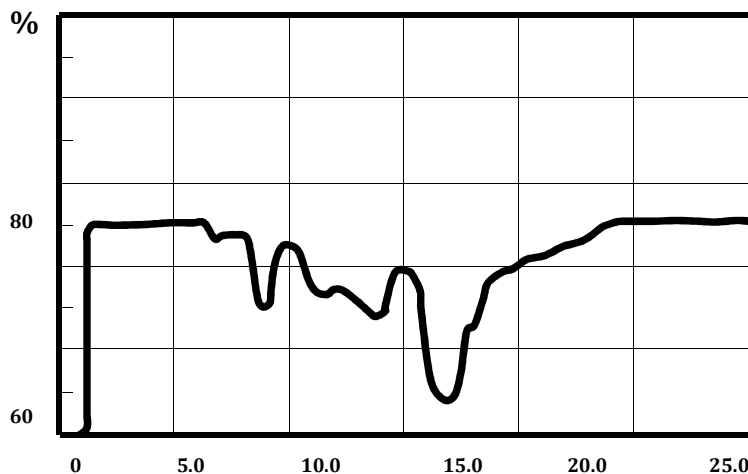
The Smartec infrared sensor type SMTIR9902SIL is a standard Smartec SMTIR9902 sensor equipped with a silicon lens for measuring radiation temperatures within a small angle of view (7.27°). The SMTIR9902SIL contains a NI1000 temperature sensor for measuring the temperature of the sensor itself. The temperature 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 <sup>2</sup> |
| Resistance of thermopile    | 50 ± 15       | KΩ              |
| Time Constant               | 50 ± 10       | ms (63%)        |
| Temperature range (sensor)  | -20 – 100     | °C              |
| Storage temperature         | -40 – 100     | °C              |
| <b>Reference Thermistor</b> |               |                 |
| Resistance                  | 1.000 ± 0.004 | KΩ (@ 0°C)      |

### FILTER(characteristic)



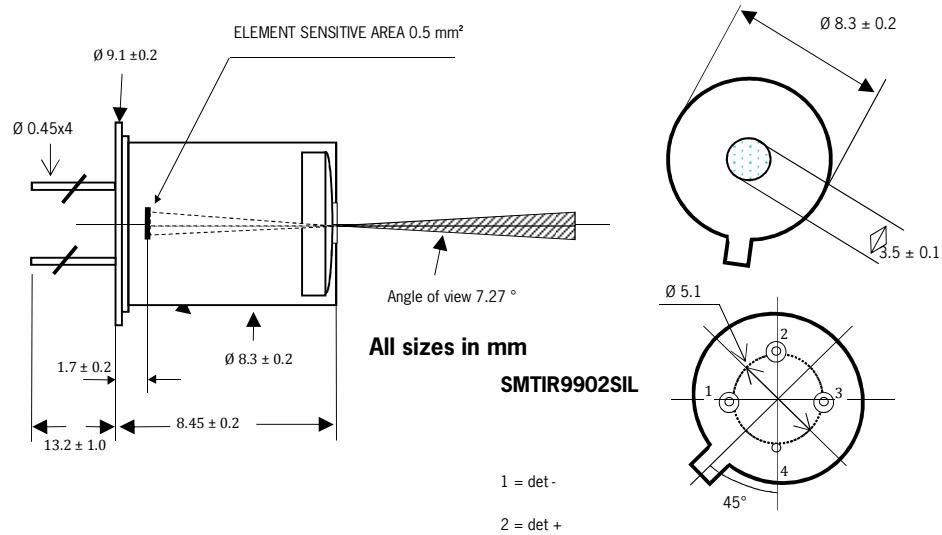
# INFRARED SENSOR WITH SILICON LENS SMTIR9902SIL

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## Dimensions



## Ordering code

**SMTIR9902sil** Infrared sensor with Ni sensor and silicon lens

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