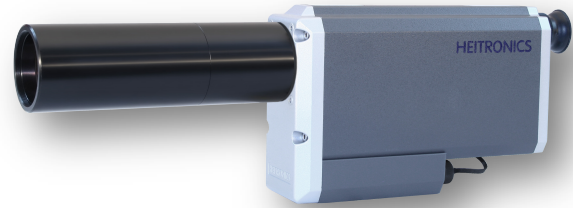


## Technical Data Sheet

# TRT II

### Transfer Radiation Thermometer

- Highest accuracy and long-term stability
- 2 switchable spectral ranges 8 ... 14 and 3.9  $\mu\text{m}$
- View finder and focus laser
- Improved infrared optic for a precise FOV
- High temperature resolution 0.02  $^{\circ}\text{C}$



### Measurement specifications

<b>Temperature range:</b>	-50 ... 300 $^{\circ}\text{C}$ (8 ... 14 $\mu\text{m}$ ); 150 ... 1000 $^{\circ}\text{C}$ (3.9 $\mu\text{m}$ )	
<b>Permissible ambient temperature:</b>	23 $^{\circ}\text{C} \pm 3$ $^{\circ}\text{C}$	
<b>Spectral response:</b>	8 ... 14 $\mu\text{m}$ / 3.9 $\mu\text{m}$	
<b>Uncertainty:</b>	Depending on the calibration laboratory (see next page)	
<b>Temperature resolution (NETD):</b>	Depending on the measured temperature and the response time Typical value is 0.02 ... 0.06 K (2 Sigma, by 3 s, $\epsilon = 1$ )	
<b>Long-term stability:</b>	Better than 0.01 % of the absolute measured temperature per month	
<b>Field of view (appr.):</b>	8 ... 14 $\mu\text{m}$ :	6.8 mm @ 380 mm
	3.9 $\mu\text{m}$ :	5.6 mm @ 360 mm
<b>Response time:</b>	Adjustable from 30 ms to 60 s, recommended: 3 s	
<b>Temperature unit:</b>	$^{\circ}\text{C}$ , K or $^{\circ}\text{F}$	
<b>Emissivity:</b>	Set to 1	

### Electrical specifications / Functions

<b>Analog output:</b>	Scalable temperature span: Selectable 0 ... 1 V; 0 ... 10 V; 0 ... 20 mA; 4 ... 20 mA; resolution : 12 bit	
<b>Function:</b>	maximum or minimum value output signal linearly to temperature or radiation	
<b>Serial interface:</b>	RS232 interface, bidirectional, for programming and data transfer	
<b>Programmable via serial interface:</b>	Emissivity, analog output, analog output function, response time, temperature unit, Min and Max value memory with decay rate and alarm output	
<b>Operating voltage:</b>	DC: 20 ... 30 V	AC: 24 V $\pm 10$ %
<b>Power consumption:</b>	VAC $\leq 4$ W	

## Technical Data Sheet

### General specifications

**Storage temperature:** -20 ... 70 °C

**Protection class:** IP65 (IEC), (NEMA 4)

**Housing:** Coated aluminum

**Weight:** Appr. 2.5 kg

### Scope of supply and Options<sup>1</sup>

■ Standardfunktion; □ Option

**Case:** ■<sup>2</sup> Protecting carrying case

**TRT Lens:** ■ Type S977 AR (high quality ZnSe lens)  
■ Size of source effect (SSE) diagram

**Laser aiming options:** ■ View finder and focus laser

**Software:** ■ EasyTRT: software for data evaluation, graphic display and export of the measured values

**Interface connection:** ■ RS232 PVC cable, 2 m long

**Power adapter** ■ Plug-in power supply T21; 80 ... 240 VAC, 50 ... 60 Hz, 620 mA

### Certificates of calibration:

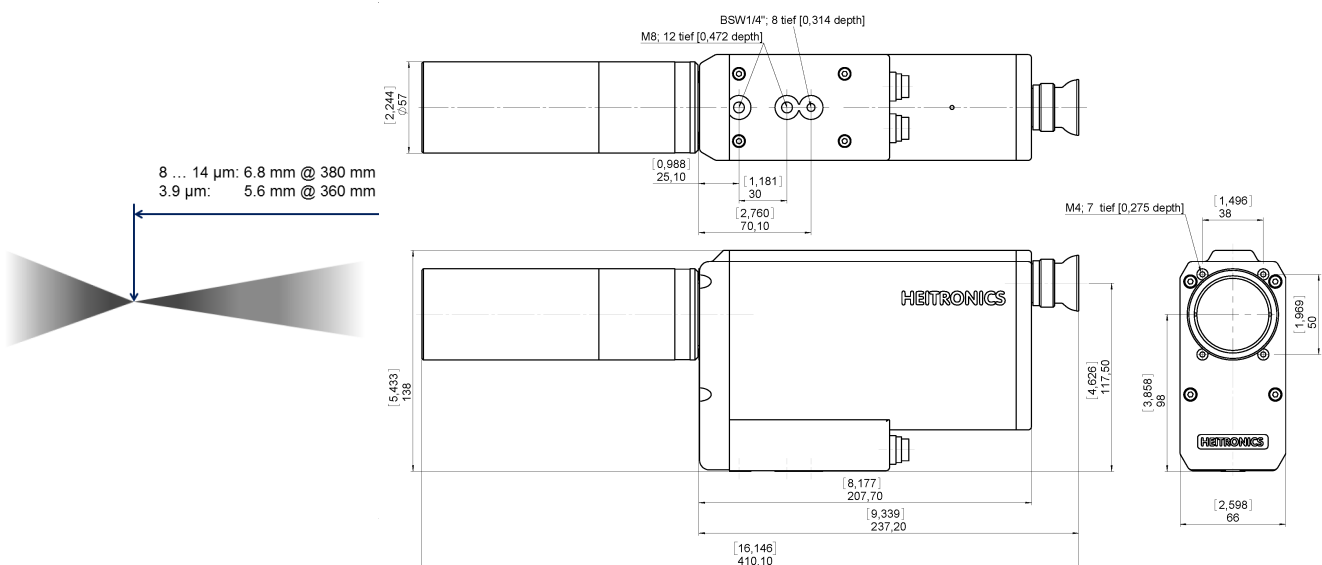
#### HEITRONICS certificate for:

- 10 temperature steps:  
8-14 µm: -20; 32; 150; 300 °C  
3.9 µm: 150; 300; 500; 600; 800; 1000 °C  
Uncertainty (k=2) 8-14 µm: for -20 ... 100 °C ≈ 0.2 °C; 100 ... 300 °C ≈ 0.5 °C  
Uncertainty (k=2) 3.9 µm: for 200 ... 700 °C ≈ 0.4 °C; 700 ... 1000 °C ≈ 0.5 °C  
(typical values based on HEITRONICS calibration report before August 1, 2018)

#### PTB certificate for:

- 10 temperature steps -40; 0; 30; 100; 200; 300; 400; 600; 800; 960 °C  
Uncertainty (k=2) 8-14 µm: for -40 ... 100 °C ≈ 0.07 °C; 100 ... 300 °C ≈ 0.2 °C  
Uncertainty (k=2) 3.9 µm: for 200 ... 1000 °C ≈ 0.2 °C  
(typical values based on PTB calibration report before August 1, 2018)

### Dimensions



<sup>1</sup> Special model specification on request.

<sup>2</sup> ■ Standard function  
□ Option