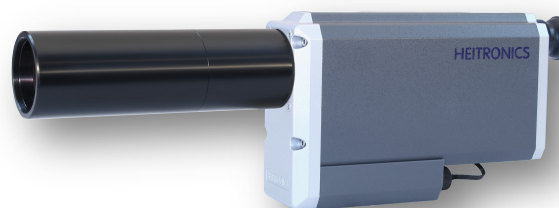


Technical Data Sheet

TRT II

Transfer Radiation Thermometer

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



MEASUREMENT SPECIFICATIONS

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

ELECTRICAL SPECIFICATIONS

Analog output:	Scalable temperature span: Selectable 0 ... 1 V, 0 ... 10 V, 0 ... 20 mA or 4 ... 20 mA	
Analog output function:	maximum or minimum value output signal linearly to temperature or radiation	
Analog output resolution:	12 bit	
Serial interface:	RS232 interface, bi-directional, for programming and data transfer	
Programmable via serial interface:	Emissivity, analog output, analog output function, response time, temperature unit, Min and Max value memory with decay function and alarm output	
Operating voltage:	DC: 20 ... 30 V	AC: 24 V ± 10 %
Power consumption:	VAC ≤ 4 W	

GENERAL SPECIFICATIONS

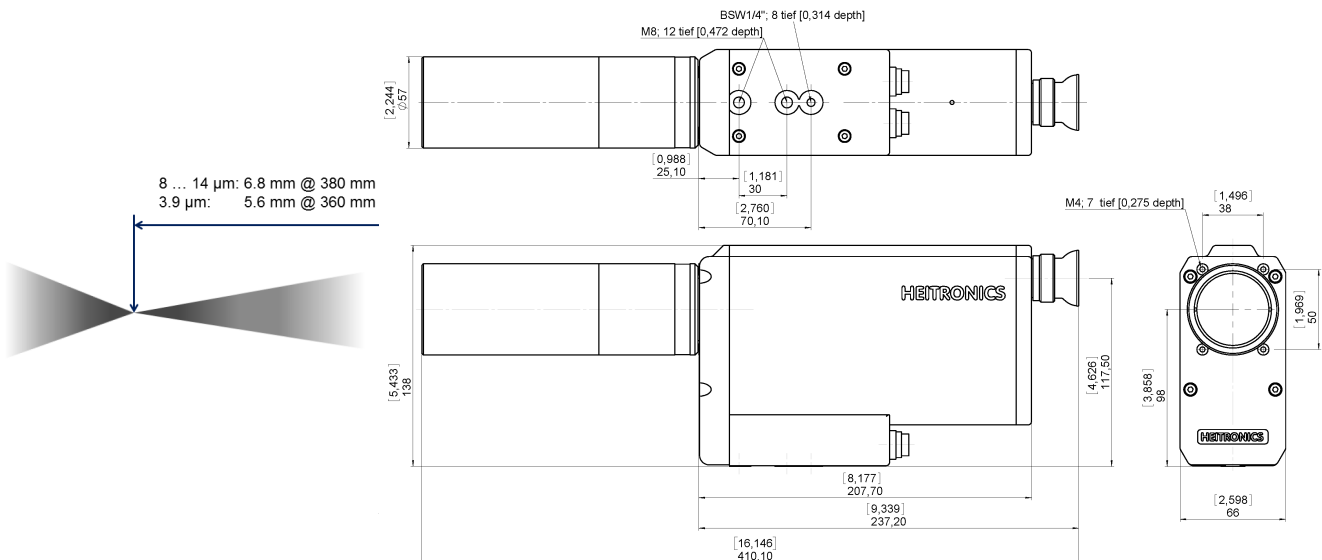
Storage temperature:	-20 ... 70 $^{\circ}\text{C}$
Protection class:	IP65 (IEC), (NEMA 4)
Housing:	Coated aluminum
Weight:	Appr. 2.5 kg

Technical Data Sheet

SCOPE OF SUPPLY AND OPTIONS¹

Case:	■ ² Protecting carrying case
TRT Objective:	<ul style="list-style-type: none"> ■ Type S977 AR (high quality ZnSe lens) ■ Size of source effect (SSE) diagram
Aiming system:	■ 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:	<ul style="list-style-type: none"> ■ 5 temperature steps per spectral range: 8-14 µm: -20; 32; 100; 200; 300 °C 3.9 µm: 200; 350; 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:	<ul style="list-style-type: none"> □ 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



¹ Special model specification on request.

² ■ Standard function
 □ Option