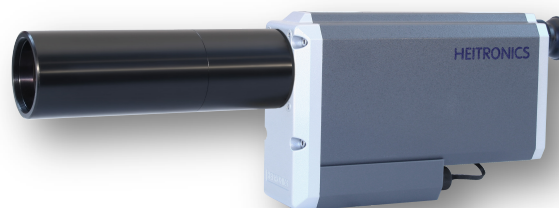


## Technical Data Sheet

# TRT IV.82

## Transfer Radiation Thermometer

- High precision and long-term stability
- Wide temperature range -50 ... 1000 °C
- View finder and laser marker
- Improved infrared optic for a precise FOV
- High temperature resolution 0.02 °C



### MEASUREMENT SPECIFICATIONS

<b>Temperature range:</b>	-50 ... 1000°C
<b>Permissible ambient temperature:</b>	23 °C ± 3 °C
<b>Spectral response:</b>	8 ... 14 µm
<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 (by 3 s, ε = 1, 2 Sigma)
<b>Long-term stability:</b>	Better than 0.01 % of the absolute measured temperature per month
<b>Field of view (appr.):</b>	6.8 mm @ 380 mm
<b>Response time:</b>	Adjustable from 30 ms to 60 s, recommended 3 s
<b>Temperature unit:</b>	°C, K or °F
<b>Emissivity:</b>	Set to 1

### ELECTRICAL SPECIFICATIONS

<b>Analog output:</b>	Scalable temperature span: Selectable 0 ... 1 V, 0 ... 10 V, 0 ... 20 mA or 4 ... 20 mA	
<b>Analog output function:</b>	maximum or minimum value output signal linearly to temperature or radiation	
<b>Analog output resolution:</b>	12 bit	
<b>Serial interface:</b>	RS232 interface, bi-directional, 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 function and alarm output	
<b>Operating voltage:</b>	DC: 20 ... 30 V	AC: 24 V ± 10 %
<b>Power consumption:</b>	VAC ≤ 4 W	

### GENERAL SPECIFICATIONS

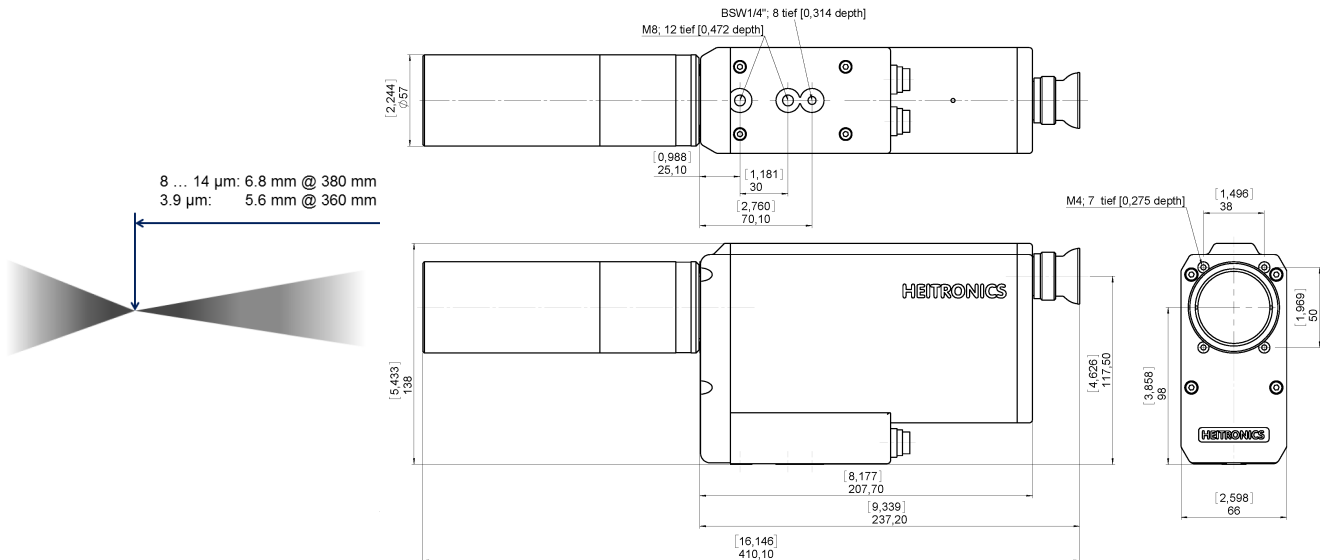
<b>Storage temperature:</b>	-20 ... 70 °C
<b>Protection class:</b>	IP65 (IEC), (NEMA 4)
<b>Housing:</b>	Coated aluminum
<b>Weight:</b>	Appr. 2.5 kg

## Technical Data Sheet

### SCOPE OF SUPPLY AND OPTIONS<sup>1</sup>

<b>Case:</b>	■ <sup>2</sup> Protecting carrying case
<b>TRT Objective:</b>	<ul style="list-style-type: none"> <li>■ Type S977 AR (high quality ZnSe lens)</li> <li>■ Size of source effect (SSE) diagram</li> </ul>
<b>Aiming system:</b>	■ View finder and focus laser
<b>Software:</b>	■ EasyTRT: software for data evaluation, graphic display and export of the measured values
<b>Interface connection:</b>	■ RS232 PVC cable, 2 m long
<b>Power adapter</b>	■ Plug-in power supply T21; 80 ... 240 VAC, 50 ... 60 Hz, 620 mA
<b>Certificates of calibration:</b>	
<b>HEITRONICS certificate for:</b>	<ul style="list-style-type: none"> <li>■ 10 temperature steps -20; 1; 32; 50; 100; 200; 350; 500; 800; 1000 °C Uncertainty (k=2) for -21 ... 32 °C ≤ 0.28 °C; 100 ... 600 °C ≤ 0.5 °C; 660 ... 1000 °C = 0.6 °C (typical values based on HEITRONICS calibration report before August 1, 2018)</li> </ul>
<b>PTB certificate for:</b>	<ul style="list-style-type: none"> <li>□ 10 temperature steps -39; 0; 30; 100; 200; 300; 420; 660; 810; 960 °C Uncertainty (k=2) for -40 ... 32 °C = 0.07 °C; 100 ... 600 °C ≤ 0.14 °C; 600 ... 1000 °C = 0.21 °C (typical values based on PTB calibration report before August 1, 2018)</li> </ul>

### DIMENSIONS



1 Special model specification on request.

2 ■ Standard function  
□ Option