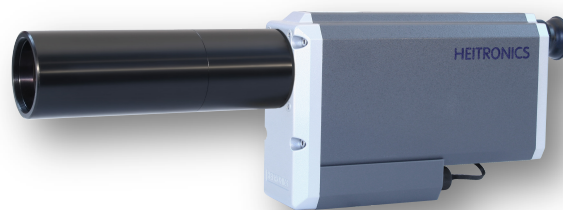


Technical Data Sheet

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

Temperature range:	-50 ... 1000°C
Permissible ambient temperature:	23 °C ± 3 °C
Spectral response:	8 ... 14 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.):	6.8 mm @ 380 mm
Response time:	Adjustable from 30 ms to 60 s, recommended 3 s
Temperature unit:	°C, K or °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

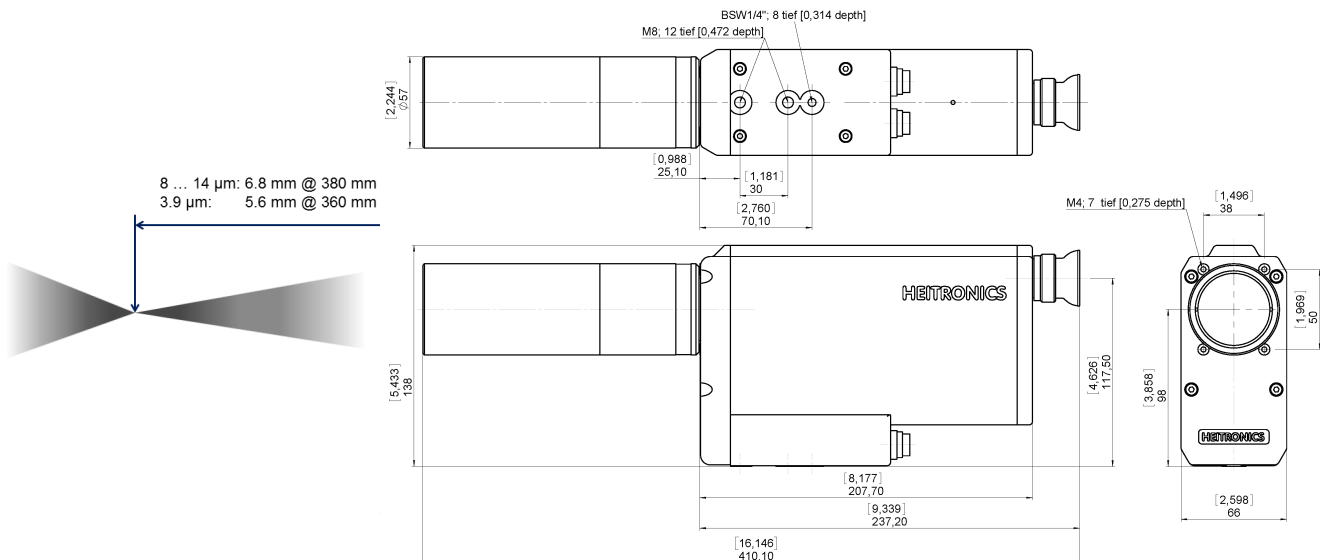
Storage temperature:	-20 ... 70 °C
Protection class:	IP65 (IEC), (NEMA 4)
Housing:	Coated aluminum
Weight:	Appr. 2.5 kg

Technical Data Sheet

SCOPE OF SUPPLY AND OPTIONS¹

Case:	■ ² Protecting carrying case
TRT Objective:	■ 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:	■ 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)
PTB certificate for:	□ 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)

DIMENSIONS



¹ Special model specification on request.

² ■ Standard function

□ Option