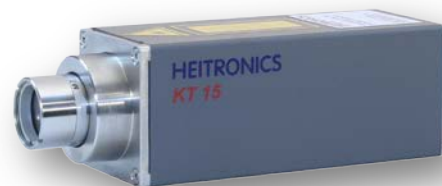


Technical Data Sheet

KT15.99 IIP

Infrared Radiation Thermometer



- Highest accuracy and long-term stability
- Vacuum tight objectives
- Fast response time from 5 ms on - even at low temperatures
- RS485 interface option

Mesurement specifications

Temperature range:	-100 ... 3000°C
Spectral response:	Between 0.85 and 20 µm
Measurement uncertainty:	± 0.5 °C plus 0.7 % of the temperature difference between measured target and instrument
Temperature resolution (NETD):	Typical value is depending on spectral range (2 Sigma, by t_{90} : 3 s, ; $\varepsilon = 1$) Depending on the measured temperature and the response time
Long-term stability:	Better than 0.01 % of the absolute measured temperature in Kelvin per month
Field of view:	From Ø 0.7 mm (± 5 %) on, depending on optic and detector
Response time (t_{90}):	Adjustable from 30 ms to 600 s, option: 5 ms, 10 ms
Temperature unit:	°C, K or °F
Emissivity:	0.100 ... 1.000 in 0.001 steps
Lens:	CaF2, ZnSe, Ge depending on spectral range

Electrical specifications / Functions

Analog output:	0 ... 1 V; 0 ... 10 V; 0 ... 20 mA; 4 ... 20 mA; resolution: 16 bit	
Function:	Actual, maximum or minimum value (scalable (minimum span 50 K))	
Analog input option:	0 ... 10 V	
Function:	Compensation of ambient temperature influence, transmittance, reflection and emissivity	
Service keyboard at the side with LED display:	Operation of the instrument without computer software	
Digital output option:	2x open-collector-output	
Function:	Threshold detection Min, Max temperature value, alarm status	
Digital input option:	Dry contact switch or operating voltage or open-collector	
Function:	Reset of memory, (de-)activate digital outputs or laser	
Thermal switch option:	Switching temperature > 70 °C, maximum load ≤ 48 V, ≤ 0.5 A	
Function:	Internal temperature alarm	
Serial interface:	RS232 interface, bi-directional 9.6 ... 115.2 kBaud, optional: RS485	
Laser aiming options:	Integrated pilot laser or focus laser	
Programmable via serial interface and service keyboard:	Emissivity, analog output, analog output function, response time, temperature unit, Min and Max value memory adjustable with decay rate, reset by contact or temperature threshold, alarm switching point, time period etc.	
Operating voltage:	DC: 10.5 ... 30 V	AC: 24 V ± 10 %, 48 ... 400 Hz
Power consumption:	< 150 mA at 24 VDC	3.5 W

