

Technical Data Sheet

KT19.24 II

Infrared Radiation Thermometer

- Highest accuracy and long-term stability
- Application: Thin plastic films, PET, PA, fluorocarbon
- View finder option or camera set
- Fast response for real time process controls



Measurement specifications	
Temperature range¹:	0 ... 400 °C
Spectral range:	7.93 µm
Measurement uncertainty:	± 0.5 °C plus 0.7 % of the temperature difference between measured target and instrument
Temperature resolution (NETD):	Depending on the measured temperature and the response time Typical value 0.1 °C (2 Sigma, by t_{90} : 3 s, 200 °C; $\varepsilon = 1$)
Long-term stability:	Better than 0.01 % of the absolute measured temperature per month
Field of view:	from Ø 0.7 mm (± 5 %) on, depending on optic and detector
Response time (t_{90}):	Selectable from 30 ms ... 600 s
Temperature unit:	°C, K or °F
Emissivity:	0.100 ... 1.000 in 0.001 steps
Lens	CaF ₂ , ZnSe
Electrical specifications / Functions	
Analog output:	0 ... 1 V; 0 ... 10 V; 0 ... 20 mA; 4 ... 20 mA; resolution: 12 bit
Function:	Actual, maximum or minimum value (scalable (minimum span 50 K))
Analog input:	0 ... 10 V
Function:	Compensation of ambient temperature influence, transmittance, reflection, emissivity
Keyboard and multifunctional display:	For displaying measured value, programming parameters, alarm etc.
Digital output:	2 Relay output (normally open)
Function:	Threshold detection Min, Max temperature value
Digital input:	Dry contact switch or voltage or open-collector
Function:	Reset of memory function, (de-)activate digital outputs or laser
Thermal switch:	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, connecting cable optional
Laser aiming options:	Integrated pilot laser or focus laser
Programmable via serial interface:	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: 20 ... 30 V AC: 24 V ± 10 %, 48 ... 400 Hz
Power consumption:	≤ 4 W

¹ depending on configuration

Specifications are subject to change without notice.

Technische Änderungen und redaktionelle Irrtümer vorbehalten.

Dimensions ⁴

