HEITRONICS
Infrarot Messtechnik

KT19 II SERIES

THE KT19 II IS THE REFERENCE CLASS OF RADIATION THERMOMETERS.
NON-CONTACT TEMPERATURE MEASUREMENT FOR DEMANDING,
VERY FAST AND PRECISE APPLICATIONS.

MAIN FEATURES

- ✓ 18 standard spectral ranges
  (with measuring temperature ranges from -100 to 3000 °C)
- ✓ Very fast response time ≥ 5 ms even at low temperatures
- ✓ Measured value resolution of 0.01 °C
- ✓ Optional viewfinder
- ✓ User friendly keyboard with display
- ✓ Complete accessory packages available

KT19 II Series allows non-contact temperature measurement for demanding, very fast and precise applications. Thanks to the vast variety of available configurations, the KT19 II is a high-tech specialist with a broad impact that delivers the highest performance.

MAIN FEATURES

The KT19 II Series was designed for a very wide range of applications such as research, in laboratories, factory automation and manufacturing process quality control.

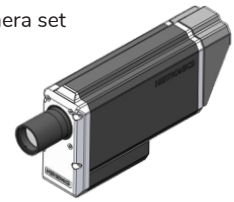
More than 530 field of view options are available. Measurement diameter starting from 0.7 mm and distance-to-spot-size ratio up to 250 : 1 are available.

Via the serial interface, it is also possible to set parameters of the KT19 II series and to set the measured value “recording”. View finder option or camera set support laser aiming options. The KT19 II Series offers a wide range of options such as lenses, pilot or focus laser, as well as mounting equipment and other accessories. A calibration certificate can be issued upon customer request.

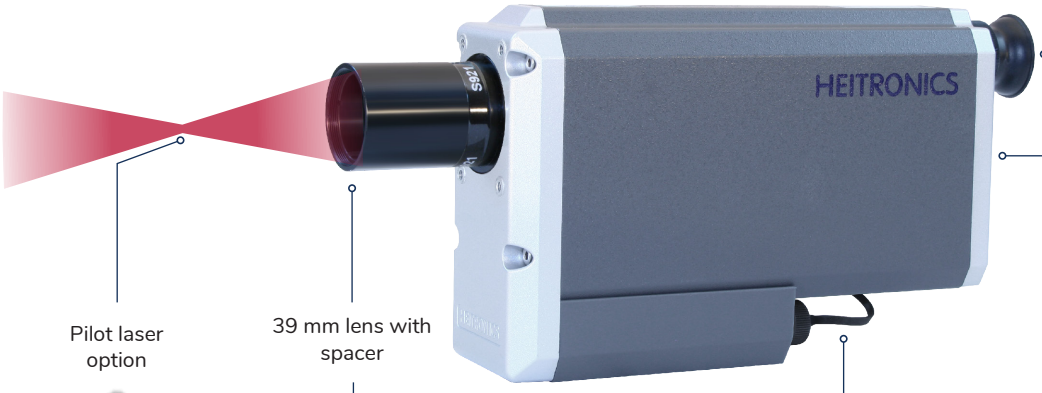
OVERVIEW

Versatile, high quality HEITRONICS technology
Options:
- Special spectral ranges
- Extended temperature range
- Customized solutions
- Accessories

KT19 II with camera set



Viewfinder with temperature display



Pilot laser option

Focus laser option

39 mm lens with spacer

High quality lens

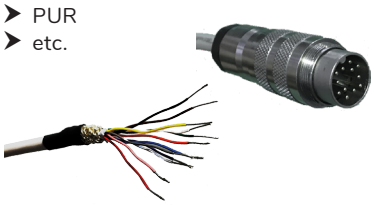
Vacuum tight lenses

26 mm lens

Dispersion free mirror optic

Connecting cable assemblies with unterminated ends or specified connectors in a variety of jacket materials

- PVC
- PTFE
- PUR
- etc.



Control panel on the rear side

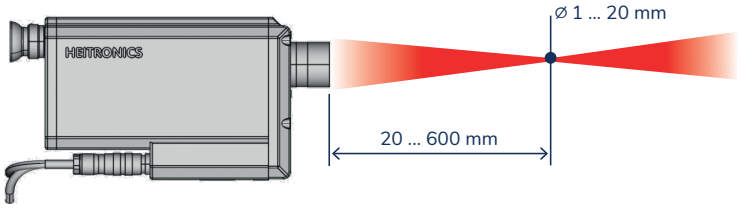
Digital interface

Power input and analog output signal

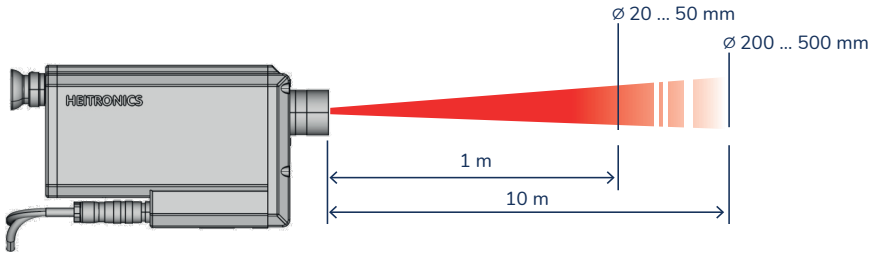
LENSES

A large selection of lenses is available to optimize the required measurement. The following figures show the measuring spot sizes depending on the distance between the thermometer and the object to be measured. Detailed field of view diagrams depend on temperature range, spectral range and other specific application criteria.

CLOSE FOCUS



FAR FIELD FOCUS



INTERFACES

KT19 II Radiation Thermometers have a configurable analog output. It can be set as voltage or mA output and scaled to a desired temperature range. The devices can be parameterized via serial interface using HEITRONICS EasyConfig or EasyMeas software.
Measured (value) data is exchanged by serial ASCII protocol and can be evaluated via EasyMeas software or with software provided by the customer.

ANALOG INTERFACES

Analog output
- 0 ... 1 V, 0 ... 10 V; 0 ... 20 mA, 4 ... 20 mA
- Actual, maximum or minimum value (scalable)

Analog input
- 0 ... 10 V
- Compensation of ambient temperature influence, transmittance, reflection and emissivity

Thermal switch option
- Switching temperature > 70 °C
- Maximum load ≤ 48 V, ≤ 0.5 A
- Internal temperature alarm

DIGITAL INTERFACE

- RS232 (others via accessories)

Software
- EasyConfig configuration and display software
- EasyMeas includes recording and playback (option)

ASCII universal protocol to use with
- other hyperterminal software (not supplied by HEITRONICS)
- customer based Data exchange

Digital output option
- 2x open-collector-output
- Threshold detection Min, Max temperature value
- Alarm status

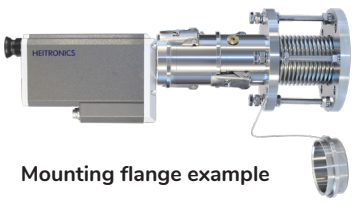
Digital input option
- Dry contact switch
- Operating voltage or open-collector
- Reset of memory, (de-)activate digital outputs or laser

MODELS

MODEL	SPECTRAL RANGE	APPLICATION	
KT19.01 II	2.00 … 2.70 µm	➤ High temperatures	**Metals, metal oxide, ceramic, glass volume**
KT19.02 II	2.00 … 4.50 µm	➤ Low temperatures	
KT19.21 II	3.43 ± 0.15 µm	➤ Thin plastic films with CH band ➤ Organic coating materials (oil, paint)	**Plastic films**
KT19.23 II	6.80 ± 0.15 µm	➤ Thin plastic films (e.g. PE, PP, PVC)	
KT19.24 II	7.93 ± 0.15 µm	➤ Thin plastic films (e.g. PET, PA, fluorocarbon)	
KT19.25 II	8.05 ± 0.15 µm	➤ Thin plastic films (e.g. PTFE, PET, PVC)	
KT19.41 II	3.90 ± 0.10 µm	➤ Glass volume, measurements through hot gases and flames	**Glass, quartz gases, flames**
KT19.42 II	4.90 … 5.50 µm	➤ Glass (processing), quartz	
KT19.43 II	7.50 … 8.20 µm	➤ Glass, quartz, ceramics, thin plates	
KT19.45 II	7.50 … 7.90 µm	➤ Ceramic glass	
KT19.61 II	4.26 ± 0.13 µm	➤ Hot gases and flames (CO_2 band)	**Hot gases, flames**
KT19.62 II	4.50 ± 0.10 µm	➤ Hot gases and flames (CO_2 and CO band)	
KT19.63 II	4.66 ± 0.10 µm	➤ Hot gases and flames (CO band)	
KT19.67 II		➤ Boiler diameter < 4 m	**Combustion gas**
KT19.69 II		➤ Hot gases in incinerators, rotary kilns	
KT19.81 II	8.00 … 10.00 µm	➤ Paper, textiles, rubber, wood, ceramics, thicker plastics (> 1 mm)	**Materials without high surface reflectivity**
KT19.82 II	8.00 … 14.00 µm	➤ Painted or coated surfaces, asphalt, building materials	
KT19.83 II	8.00 … 20.00 µm	➤ Electronic components, food, liquids	
KT19.85 II	9.60 … 11.50 µm	➤ Meteorological, biological, agricultural studies, large measuring distances	
KT19.xx II		➤ Several spectral ranges available, temperature range depending on application	**Special applications**

MOUNTING AND ACCESSORIES

Dispersion free mirror optic



Mounting flange example

Cooling jacket with adapter for mounting flange options

HEITRONICS
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qualityaustria
SYSTEMZERTIFIZIERT
ISO 9001:2015 NR.21628/95

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Specifications are subject to change without notice.