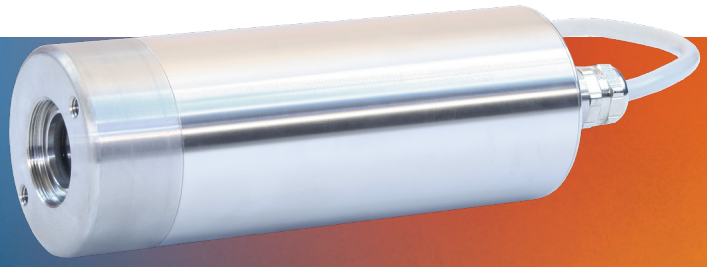
HEITRONICS
Infrarot Messtechnik

CT13 SERIES

ADVANCED INFRARED RADIATION THERMOMETERS WELL SUITED FOR PROCESSES THAT UNDERGO CLEANING AND DISINFECTION AS WELL FOR OTHER APPLICATIONS WITH HARSH ENVIRONMENTS



MAIN FEATURES

- ✓ Wide temperature measuring range (from 0 to 2000 °C)
- ✓ Very fast response time ≥ 30 ms
- ✓ Several spectral ranges (between 2 and 14 µm)
- ✓ Chopped Radiation Method for highest accuracy and long-term stability
- ✓ Robust stainless steel housing, IP68

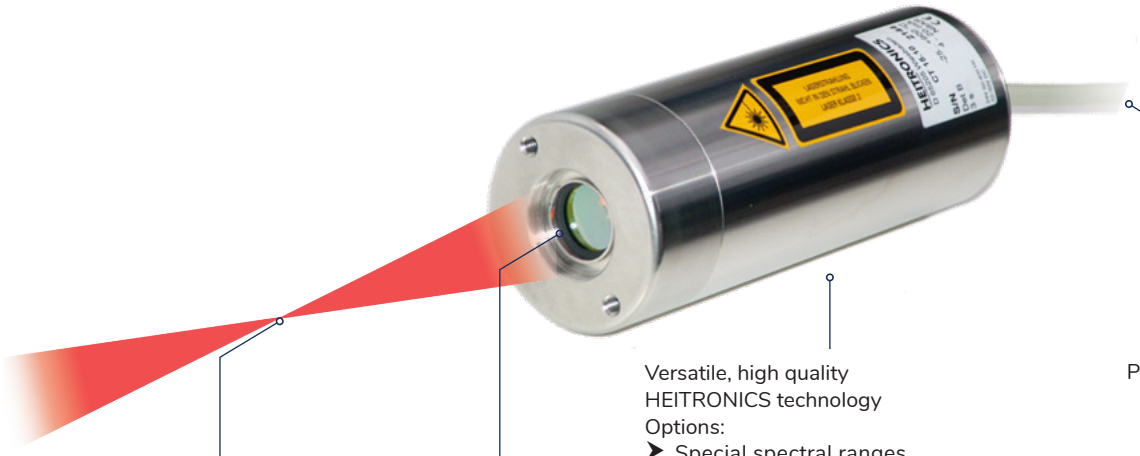
HEITRONICS CT13 Infrared Radiation Thermometers are ideal for use in harsh environments thanks to a robust stainless steel housing. Including high speed processes and for real-time measurements, they ensure precise and drift-free measurements of objects from ≥ 1 mm diameter.

MAIN FEATURES

In addition to the IP68 stainless steel housing CT13 Radiation Thermometers offer a wide range of spectral ranges within 2 to 20 µm and temperature ranges from 0 to 2000 °C or higher. Measured temperature values are transmitted via an individually scalable analog output and a serial interface. Via the serial interface, it is also possible to set parameters of the CT13 Series and to set the parameters for the measured value.

The CT13 Series offers a wide variety of options and amenities such as lenses, pilot laser as well as protective mounting equipment and other accessories. CT13 Series meets almost any requirement. A calibration certificate can be issued upon customer request.

OVERVIEW



Digital interface

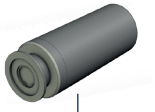
Power input and analog output signal

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

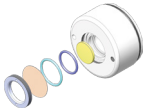
High quality lens

Pilot laser option

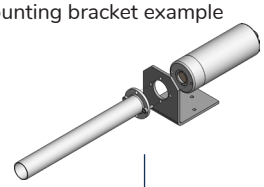
Vacuum flanged housing option



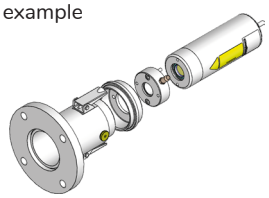
Replacable protective foil option (GMP)



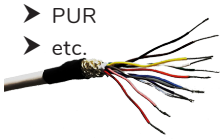
Customized solutions: Air purge including protection tube and mounting bracket example



Customized solutions: Flange mounting and air purge fitting example



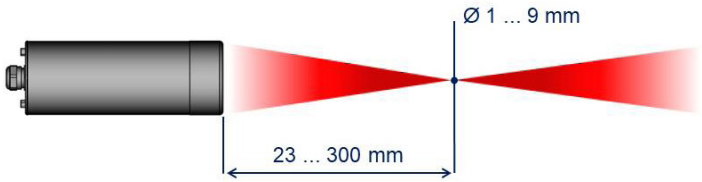
Connecting cable assemblies with unterminated ends or specified connectors in a variety of jacket materials
- PVC
- PTFE
- PUR
- etc.



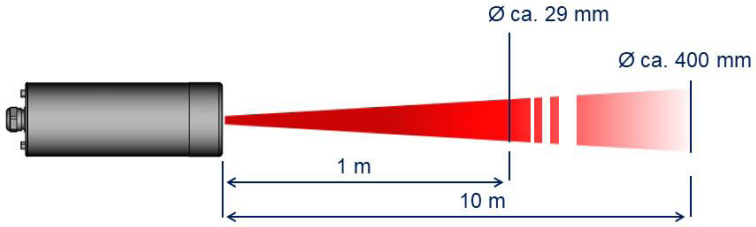
LENSES

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

CT13 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 the serial interface using HEITRONICS EasyConfig or EasyMeas software.
Measured (value) data is indicated by serial ASCII protocol and can be evaluated via EasyMeas software or with software provided by the customer.

ANALOG INTERFACES

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

DIGITAL INTERFACES

- Standard: RS232
- Bus interface via module on request

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
- Open-collector
- Threshold detection Min, Max temperature value

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	
CT13.2	2.00 ... 2.70 µm	➤ Metal surfaces (heating) ➤ Ceramic surfaces ➤ Induction heating ➤ Furnaces	**Metals, Metal oxide, Ceramic, Glass volume**
CT13.22	2.00 ... 4.50 µm	➤ Low temperatures	
CT13.3i	3.43 µm	➤ Plastic films with CH band ➤ Organic coating materials (oil, paint) ➤ Thin plastic films (e.g. PET, PA)	**Plastic films**
CT13.7	7.93 µm	➤ Thin plastic films (e.g. PET, PA)	
CT13.4	3.90 µm	➤ Glass volume ➤ Measurements through hot gases and flames	**Glass, Quartz, Gases, Thin glass**
CT13.5	5.20 µm (4.90 ... 5.60 µm)	➤ Surface temperature of glass/quartz ➤ Glass processing	
CT13.77	7.50 ... 7.9 µm	➤ Surface temperature of glass/quartz in furnace ➤ Ultra-thin glass and minimized influence of background temperatures	
CT13.8	7.50 ... 8.20 µm	➤ Surface temperature of glass/quartz	
CT13.10	8.00 ... 14.00 µm	➤ Paper, rubber, wood, ceramics ➤ Painted or coated surfaces, asphalt, building materials ➤ Electronic components ➤ Food processing and liquids ➤ Sterilization processes for medical devices and food industries ➤ Cloud monitoring, surface of land ➤ Textile processing, refinement and drying	**Materials without high surface reflectivity**
CT13.88	8.00 ... 10.00 µm	➤ Meteorological, biological measurements ➤ Agricultural studies ➤ Large measuring distances	**Natural material, Chemicals**

MOUNTING AND ACCESSORIES

Water cooling

Black Body Radiation Source SW40

Temperature Meter MS40

HEITRONICS
Infrarot Messtechnik

qualityaustria
SYSTEMZERTIFIZIERT
ISO 9001:2015 NR.21628/95

HEITRONICS Infrarot Messtechnik GmbH
Kreuzberger Ring 40
65205 Wiesbaden
Deutschland

Tel. +49 611 973 93 0
Fax +49 611 973 93 26
E-Mail: info@heitronics.com
www.heitronics.com

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