

**Extreme high
Stability using
Chopped
Radiation Method**

**Robust Stainless
Steel Housing with
NEMA 6 Rating**

**Very high
Resolution 0.03°C**

**Fast Response
Times from 5 ms
on**



Application

**Manufacturing
and processing
of:**

- Rubber
- Plastics
- Ceramics
- Varnish
- Food
- Textiles

**Beneficial
in case of:**

- NEMA 6 rating
- precise and
drift free
measurement
- small targets
- measurement in
harsh
environments
- very fast
measurements
- wide
temperature
range

Infrared Radiation Thermometer

CT15.10

**The Universal Infrared
Radiation Thermometer for
Non Contact Temperature
Measurement**

HEITRONICS
Infrarot Messtechnik

Infrared Radiation Thermometer CT15.10 at a Glance

Features

- Rugged stainless steel housing, NEMA 6
- Wide temperature range from -25°C to 900°C
- Very fast response times ≥ 5 ms (programmable)
- Fields of view as small as 1.7 mm
- *Focus laser* marks field of view area
- High accuracy (0,7%) and long term stability
- Chopped Radiation Method for very high temp. stability

Functions

- μ P based signal operation
- All parameters configurable via serial interface:
 - Temperature measuring range
 - Analog output 0/4-20mA; actual or Min/Max-value
 - Integrated valley/peak picker w/ decay function
 - Emissivity setting
 - Reflected environmental temperature

General Specifications

Temperature range	-25°C ... 900°C
Temperature resolution (NETD)	Depends on measuring temperature and response time, typical value 0,1°C
Accuracy (uncertainty)	$\pm 0.8^\circ\text{C}$ plus 0.7% of the difference between target and housing temperature
Long term stability	Better than 0,01% of the absolute measured temperature per month
Field of view diameter	From $\varnothing 1,7\text{mm}$, depends on lens
Field of view marking	<i>Focus laser</i> , built-in: aims the size of the field of view in focal distance <i>Pilot laser</i> , built-in: aims the center of the field of view in any distance More mechanical pointers are available
Laser function	Time out or permanent operation, while flashing or continuous marking
Spectral range	8 – 14 μm
Programmable functions via serial interface	Emissivity, Environmental temperature, Analog output, Function of analog output, Response time, Temperature unit, Valley/ Peak-picker with decay function, Laser operation
Emissivity	0,100 to 1,000 in 0,001-steps
Response time	from 5 ms to 10 s (0,03, 0,1, 0,3, 1, 3, 10 s)
Temperature unit	°C, °F or K
Analog output (Hardware)	4 scalable output signals , temperature linear 0-10V, 0-1V, 0-20mA or 4-20mA, Zoom function for temperature span > 50 K
Analog output (Functions)	Actual value, Maximum value or Minimum value
Serial interface	RS232-Interface, bi directional, 9.600 to 115.000 bps , for programming and data transfer
Thermal switch	Monitors the instrument temperature
Power requirements	22-30 VDC or 24 VAC $\pm 10\%$, 48-400 Hz ≤ 150 mA @ 24 VDC
Permissible operating temperature	-20°C ... 60°C
Storage temperature	-20°C ... 70°C
Protective class, Weight	IP67 (IEC), NEMA 6; 1.3 kg
Housing	Stainless steel

Housing dimensions in mm

