HEITRONICS
Infrarot Messtechnik

Technical Data Sheet

CT09.WT

Infrared Radiation Thermometer

- watertight
- protection class IP69
- Optics minimize water accumulation
- Field of view from 1 mm on

Measurement specifications		
Temperature range[1]:	-30 … 500 °C or 0 … 900 °C	
Spectral range:	8 … 14 µm	
Measurement uncertainty:	± 1 °C + 0.6 % of the temperature difference between measured target and instrument or value of temperature resolution. The higher value shall prevail.	
Temperature resolution (NETD):	Depending on the measured temperature and the response time Typical value is 0.1 °C (2 Sigma, by t_{90}: 1 s, 20 °C; Ɛ = 1)	
Long-term stability:	Better than 0.01 % of the absolute measured temperature in Kelvin per month	
Field of view:	From 1 mm on. Depending on optic and measuring distance	
Response time (t_{90}):	Selectable from 50 ms … 10 s	
Temperature unit:	°C, K or °F	
Emissivity:	0.100 … 1.000 in 0.001 steps	
Lens:	Ge	
Available lenses:	Non focused: K6 Focused: L6 Focused: M6 Focused: N6 Focused: J6	Field of view: 40 mm at 1000 mm measuring distance Field of view: 3 mm at 110 mm measuring distance Field of view: 1 mm at 25 mm measuring distance Field of view: 4,5 mm at 165 mm measuring distance Field of view: 11,8 mm at 405 mm measuring distance

Electrical specifications / Functions		
Analog output: **Function:**	0 … 20 mA; 4 … 20 mA; resolution: 12 bit Actual, maximum or minimum value (scalable (minimum span 50 K))	
Digital output option: **Function:**	open-collector Threshold detection, temperature value	
Digital input option: **Function:**	Dry contact switch, operating voltage, open-collector Reset of memory function	
Serial interface:	RS232C interface, 9.6 … 57.6 kBaud	
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:	CT09 as 24 V version: 16 … 32 VDC	CT09 as 12 V version: 10 … 15 VDC
Power consumption:	≤ 1.6 W	CT09 as 12 V version: approx. 1.9 W

[1] Depending on configuration

Tel.: +49 611 973 93-0 – Fax: +49 611 973 93-26 – info@heitronics.com – www.heitronics.com
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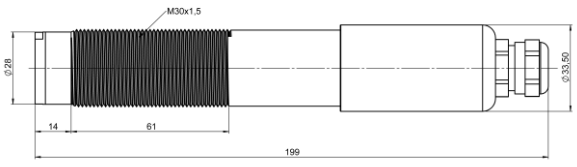
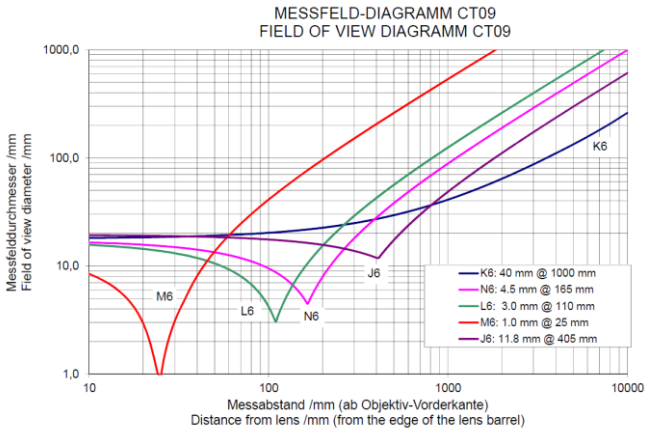
General specifications	
Storage temperature:	-40 … 85 °C
Permissible ambient temperature:	-25 … 70 °C (optional with protective cooling jacket up to 250 °C)
Protection class:	IP69
Protection against oscillation:	EN 60068-2-6, Frequency range: 10 … 500 Hz 10 … 60 Hz, amplitude: ± 0.35 mm, 60 … 500 Hz, acceleration: 100 m/s² Resistance to vibrations: class B
Housing:	Stainless steel 1.4404
Weight:	240 g

Scope of supply and options		
Accessories:	■[2]	Manual CT09
	■	Software EasyMeas
	□	Mounting bracket
	■	Connecting cable with PG thread, 7-pin female connector, 5 m length, TPE, unterminated ends
Calibration certificate:	□	HEITRONICS certificate
Adapter and flanges:	□	See document Options and Accessories
Bus interface:	□	with transducer

Dimensions[3]





Unit: mm

2 ■ Standard function
□ Option
3 The dimensions given within this document will be valid for the drawing shown.

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