



More Precision

thermoMETER
Non-contact IR temperature sensors





thermoMETER CTtrans

CTtrans is a compact material analysis system to measure transmissivity, emissivity or degree of reflection. The system uses an active infrared transmitter in combination with an IR CT detector. A programmable controller with display processes the measurement data and outputs the information analogue or digitally.

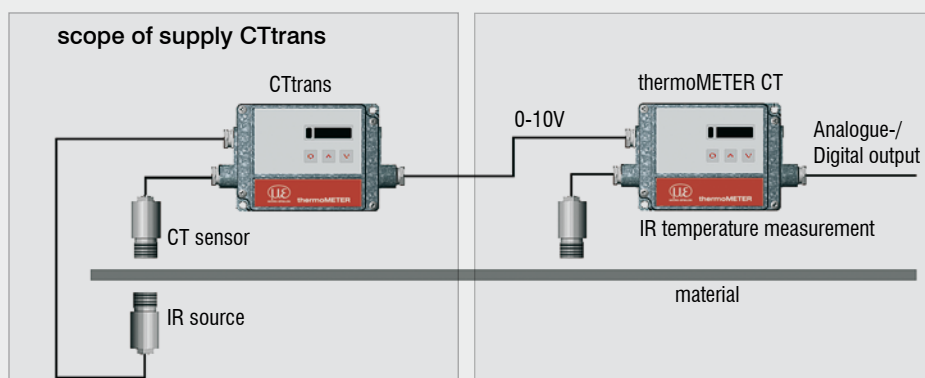
- Combination of miniaturised infrared radiator and CT - infrared sensor
- Different modes for evaluation of the material parameters transmissivity, emissivity and reflection
- 0-10V - output allows transmission of the determined emissivity to a CT sensor
- Infrared temperature measurement with automatic material detection
- Available as a mobile system (with carrying case) or for fixed installations
- High life span of the infrared source (40.000h operating time)



Emissivity

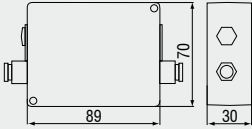


Transmissivity



Online detection of emissivity and transmissivity

If material changes the new emissivity and transmissivity will be determined by the CTtrans and transferred via 0-10V output to the CT connected for temperature measurement.



Product identification

CTT - SF15 - C3
 Cable length 3m
 SF=Standard Focus
 thermoMETER CTtrans

Model	CTT-SF15-C3	
Spectral range	8 to 14 μ m	
Repeatability ¹	\pm 2,5%	
Probe size	>7mm	
Emissivity	10 to 100%	
Transmissivity/gain	0 to 100%	
Reflexion	0 to 100%	
Measurement cycle	0.1 to 99s	
Recommended distance (IR source - sensor)	30 to 60mm	
Outputs/analogue	0/4 to 20mA, 0 to 5/10V	
Output/digital	3.3V / 30mA	
Relay output	optional	2 x 60VDC / 42VAC _{eff} ; 0.4A; optically isolated
Outputs/digital	optional	USB, RS232, RS485 (optional)
Output impedances	current output voltage output	mA max. 500 Ω (8 to 36VDC) mV min. 100k Ω load impedance thermocouple 20 Ω
Input/digital	calibration input	
Cable length	3m (standard)	
Power supply	10 to 24VDC; max. 150mA	
Environmental rating	IP 65 (NEMA-4)	
Ambient temperature	sensor: -20°C to 100°C IR source: -20°C to 100°C	
Storage temperature	sensor: -40°C to 120°C IR source: -40°C to 120°C	
Relative humidity	10 to 95%, non condensing	
Vibration	IEC 68-2-6: 3G, 11 to 200Hz, any axis	
Shock	IEC 68-2-27: 50G, 11ms, any axis	
Weight	sensor: 40g; IR source: 40g; controller: 450g	

¹ \pm ambient temperature: 23 \pm 5°C

Scope of supply

- ▶ CT 15:1 sensor
- ▶ IR source
- ▶ CTtrans controller
- ▶ Power supply (AA-batteries)
- ▶ Adjustment board
- ▶ Manual
- ▶ Case

High performance sensors made by Micro-Epsilon



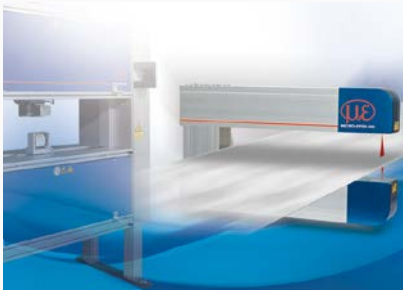
Sensors and systems for displacement and position



Sensors and measurement devices for non-contact temperature measurement



2D/3D profile sensors (laser scanner)



Measurement and inspection systems for quality assurance



Optical micrometers, fibre optic sensors and optical fibres



Colour recognition sensors, LED analysers and colour online spectrometer



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