

More Precision.



optris® CSmicro

Low cost micro size
infrared thermometer



FEATURES

- Size: M12x1, 28 mm long, stainless steel housing
- Temperature range: -20 to 350°C
- Rugged coated silicon optics
- Operates in **up to 120°C** ambient temperature without cooling (sensing head)
- Cable built in electronics
- Scalable analog output: 0 - 10 V or 0 - 5 V and additional simultaneous alarm output
- Short circuit and reverse polarity protection
- Programmable signal processing
- Optional USB programming interface and software
- Wide power range: 5 - 7, 12 - 28 V DC

General Specifications	
Environmental rating	IP65 (NEMA-4)
Ambient temperature	-20 - 120°C (sensing head)
Storage temperature	-20 - 85°C (sensing head and electronics)
Relative humidity	10 - 95%, non condensing
Vibration	IEC 68-2-6: 3 G, 11 - 200 Hz, any axis
Shock	IEC 68-2-27: 50 G, 11 ms, any axis
Weight	sensing head 40 g
	electronics 30 g
Electrical Specifications	
Outputs/analog	0 - 5 V or 0 - 10 V
	1/10/100 mV/°C
Alternative: Outputs/digital	RS232 or alarm (70 mA/24 V)
Inputs	programmable functional input for external emissivity adjustment (0 - 5 V DC), hold function or RS232 communication
Cable length	1 m (standard)
	0.5 m between sensing head and electronics
	0.4 m between electronics and terminal
Power supply	5 - 7, 12 - 28 V DC
Current draw	15 mA, 9 mA

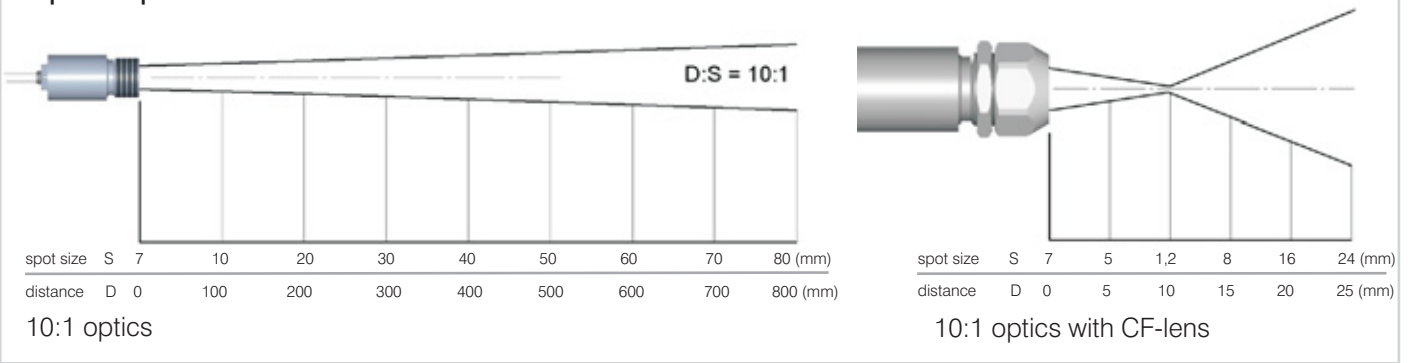
Measurement Specifications	
Temperature range (scalable via software)	- 20 - 350°C
Spectral range	8 - 14 μm
Optical resolution	10:1
CF-lens (optional)	1.2 mm @ 10 mm
System accuracy	±1.5% or ±1.5°C ^{1,2}
Repeatability	±0.5% or ±0.5°C ^{1,2}
Temperature resolution (at object temperature <100°C and time constant >0.2 s)	0.1°C
Response time	30 ms - 999 s (90%), adjustable
Emissivity/Gain (adjustable via 0 - 5 VDC input or software)	0.100 - 1.100
Transmissivity (adjustable via software)	0.100 - 1.100
Signal processing (parameter adjustable via software)	peak hold, valley hold, average
Dimensions of electronics	length
	diameter
Certificate of calibration	optional

¹ whichever is greater and object temperature above 0°C

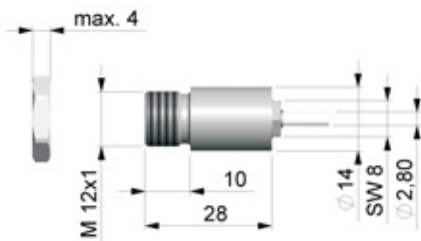
² at ambient temperature 23 ±5°C

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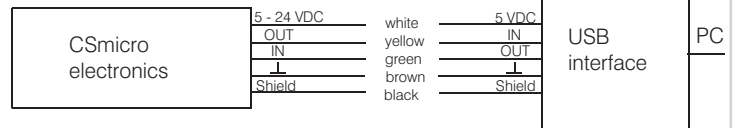
Optical Specifications



Dimensions/Connections

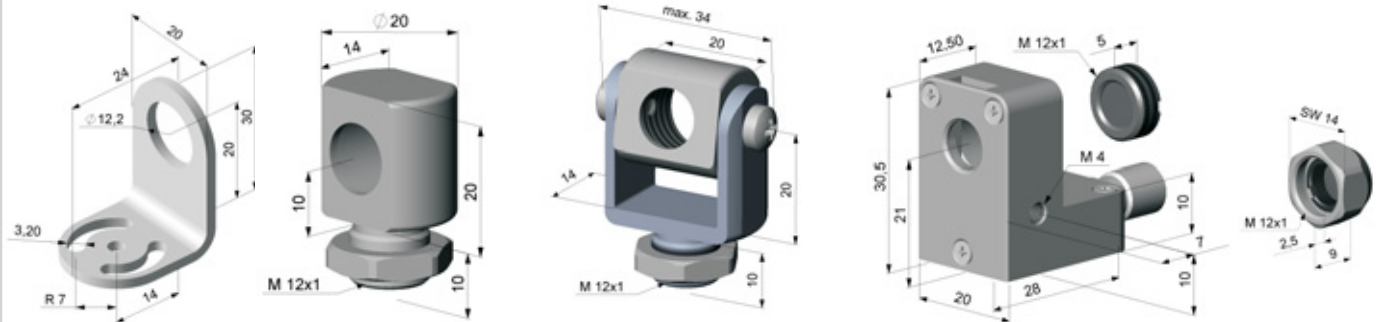


Dimensions CSmicro



Connection diagram CSmicro/USB programming interface

Accessories



Mounting bracket, fixed

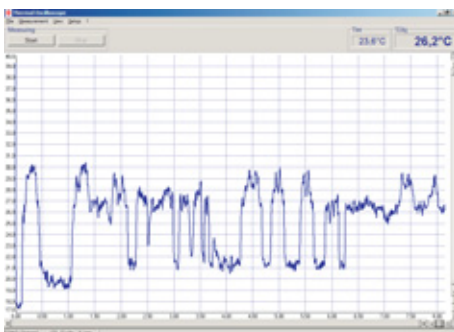
Mounting bolt with M12x1-thread

Mounting fork, adjustable in 2 axis, with M12x1-thread

Air purge collar, optional with integrated CF-lens

CF-lens

CSconfig Software and Thermal Oscilloscope Software



- easy sensor setup and remote controlling via USB interface
- automatic data logging for analysis and documentation
- graphic display of temperature trends
- adjustment of signal processing functions
- programming of the input pin
- programming of the signal output



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