optris® CS

Compact low cost infrared thermometer for -20 to 350°C

FEATURES

- Size: M12x1, 87 mm long, stainless steel housing
- Temperature range: -20 to 350°C
- Rugged coated silicon optics
- Integrated electronics with LED alarm indication and smart electronic sighting support
- Operates in up to 75°C ambient temperature without cooling
- Scalable analog output: 0 - 10 V or 0 - 5 V
- 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 - 75°C
Storage temperature	-20 - 85°C
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	90 g
Electrical Specifications	
Outputs/analog	0 - 5 V or 0 - 10 V
	1/10/100 mV/°C
Alternative: Outputs/digital	RS232 or alarm
Inputs	programmable functional input for external emissivity/ambient temperature adjustment (0 - 5 V DC), hold function or RS232 communication
Cable length	1 m (standard), 3 m, 15 m
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 (at ambient temperature 23 ±5°C)	±1.5% or ±1.5°C[1]
Repeatability (at ambient temperature 23 ±5°C)	±0.5% or ±0.5°C[1]
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 V DC 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
Certificate of calibration	optional

[1] whichever is greater and object temperature above 0°C

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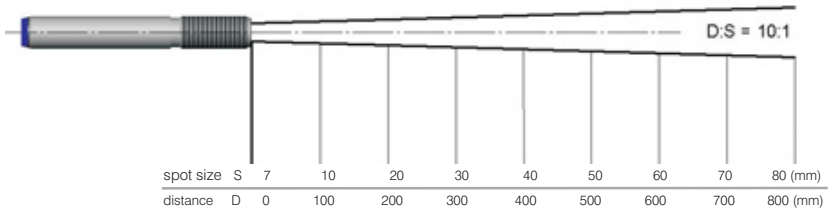
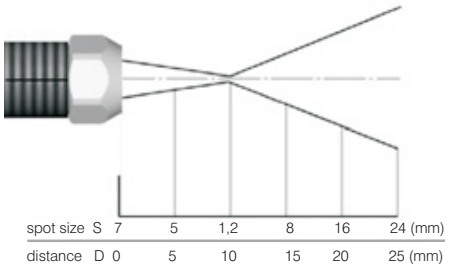
Optical Specifications

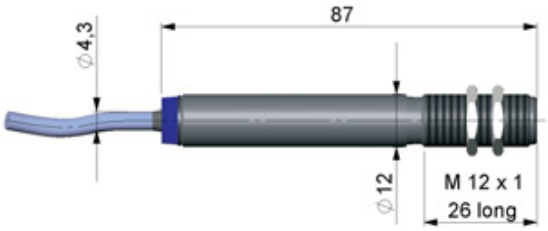


10:1 optics

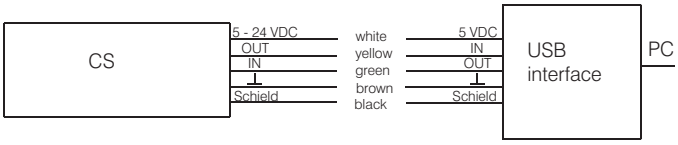


10:1 optics with CF-lens

Dimensions/Connections

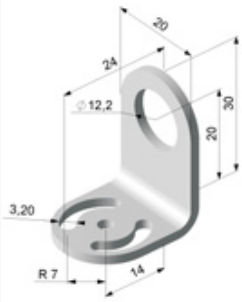


Dimensions CS

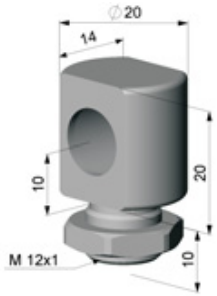


Connection diagram CS/USB programming interface

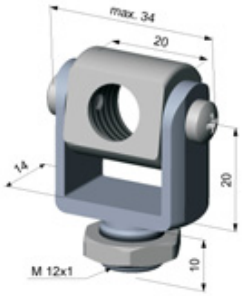
Accessories



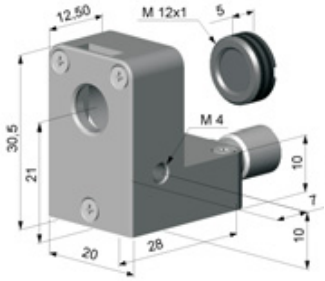
Mounting bracket, fixed



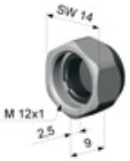
Mounting bolt with M12x1-thread



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

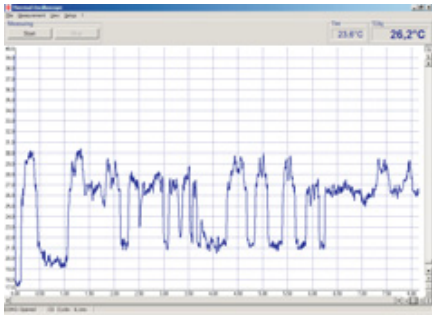


Air purge collar, optional with integrated CF-lens



CF-lens

CSconfig Software and Thermal Oscilloscope Software



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

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A member of the micro-epsilon group.

Specifications are subject to change without notice.
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