

optris® CSmed LT

Low-cost IR thermometer for medical devices
Smart, safe and easy for -40 to 1030°C



FEATURES

- Temperature range: -40°C to 1030°C
- Pluggable for simple changing to service purposes
Response time: 25 ms
- Optical Resolution 15:1
- Green LED alarm indication, aiming support, self-diagnostic or temperature code indication
- Usable up to 80°C ambient temperature without cooling
- Several outputs: 0-10 V or 0-5 V free scalable, alarm output or digital output
- USB programming interface, direct serial 9.6 kBaud interface
- Power supply: 5-30 V DC

General Specifications

Environmental rating	IP 63
Ambient temperature	-20°C to 80°C
Storage temperature	-20°C to 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	58 g

Electrical Specifications

Output/analog	0-5 V or 0-10 V free scalable, alarm with adjustable voltage levels
Output/alarm	0-30 V/50 mA (open collector)
3-state alarm output	adjustable threshold values and voltage level for: no alarm, pre-alarm, alarm
Output/digital	uni/bidirectional, 9.6 kBaud, 0/3 V digital level/USB optional
Input (0-10V)	programmable functional input for external emissivity setting/ambient temperature adjustment, triggered signal output or peak-hold function
LED-functions	alarm indication, automatic aiming support, self diagnostic, temperature indication (via. temp.code)
Cable length	5 cmw ith ESTO - Binder 4 pol. miniature cable plug series 712
Power supply	5-30 V DC
Current draw	4 mA (ohne LED)/10 mA

Measurement Specifications

Temperature range (scalable via software)	-40°C to 1030°C
Spectral range	8 to 14 μm
Optical resolution (90 % energy)	15:1
CF-lens (optional)	0.8 mm @ 10 mm
System accuracy (at ambient temp. 23 ± 5°C)	± 1.5% or ± 1.5°C ¹⁾
Repeatability (at ambient temp. 23 ± 5°C)	± 0.75% or ± 0.75°C ¹⁾
Temperature coefficient	± 0.05 K/K or ± 0.05 % K ³⁾
NETD	0.1 K ²⁾
Response time (90%)	25 ms (adjustable up to 999 s)
Emissivity/Gain (adjustable via 0-10 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; extended hold function with threshold and hysteresis
Software	optris Compact Connect

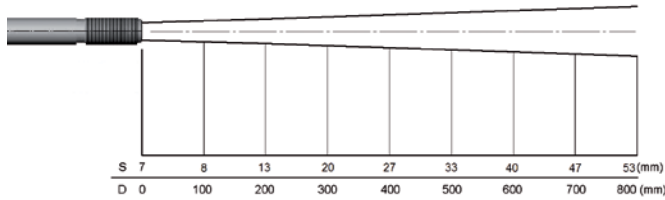
¹⁾ object temperature > 0°C; whichever is greater

²⁾ at time constant 100 ms and T_{obj} 25°C

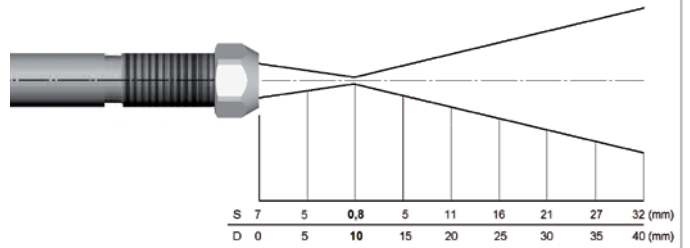
³⁾ for ambient temperatures <18°C and >28°C; whichever is greater

Optical Specifications

Optics, D:S = 15:1

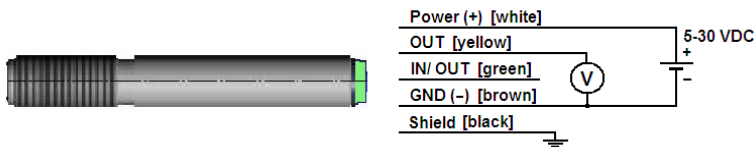


Optics with CF-lens, D:S = 15:1



Connections

Connection analog with open collector alarm output

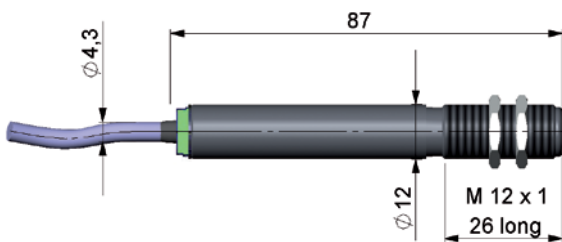


Connection digital with USB adapter cable

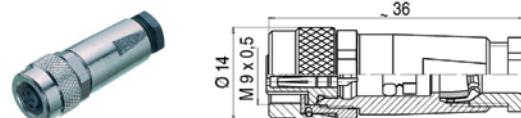


Dimensions

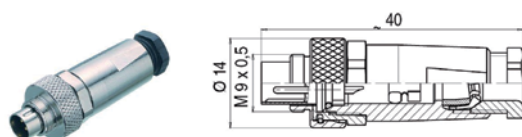
Dimensions optris CS



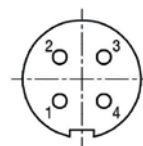
Cable box onto equipment side



Cable plug at CSmed (included in delivery)



ESTO-Binder
Series 712 / 99-0409-1004



ESTO-Binder
Series 712 / 99-0410-1004

pole chart contact side
1 green 2 brown
3 white 4 yellow