

optris® CS LT

Simple access into multiple sensor installations:
Smart, safe and easy for -40 to 1030°C



FEATURES

- Temperature range: -40°C to 1030°C
- Response time: 25 ms
- Optical Resolution 15:1
- Green LED alarm indication, aiming support, selfdiagnostic or temperature code indication
- Usable up to 80°C ambient temperature without cooling
- Several outputs selectable: 0-10 V or 0-5 V free scalable or thermocouple type K, 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	Selectable: 0-5 V or 0-10 V free scalable or thermocouple type K / 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	1 m (standard), 3 m, 8 m, 15 m
Power supply	5-30 V DC
Current draw	4 mA (without 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

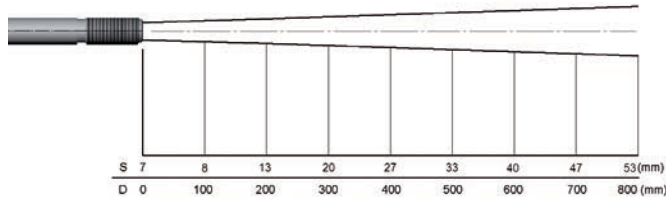
¹⁾ object temperature > 0°C; whichever is greater

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

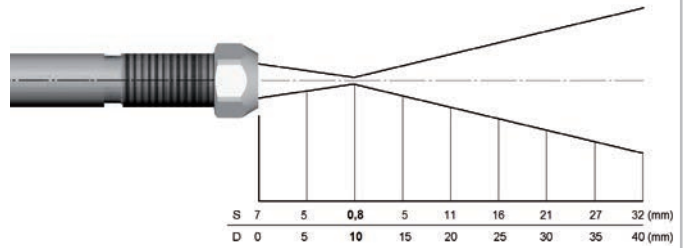
³⁾ for ambient temperatures < 18°C and > 28°C; whichever is greater

Optical Specifications

Optics, D:S = 15:1

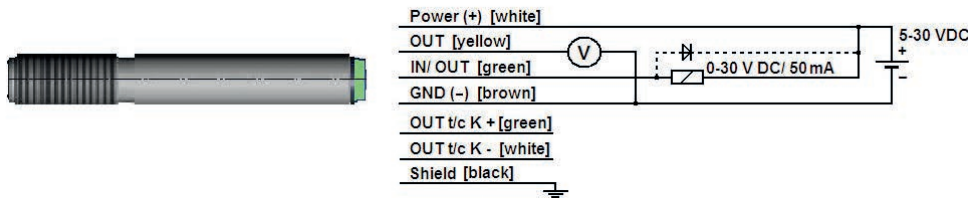


Optics with CF-lens, D:S = 15:1



Connections

Connection analog with open collector alarm output (e.g. to actuate a relay)

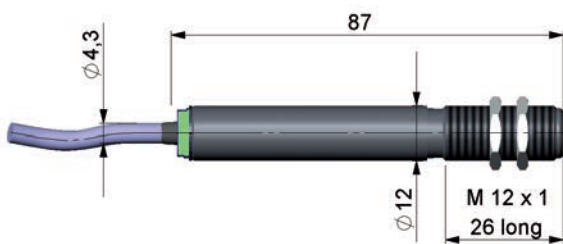


Connection digital with USB adapter cable

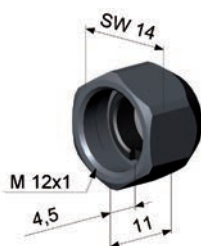


Dimensions/Accessories (examples)

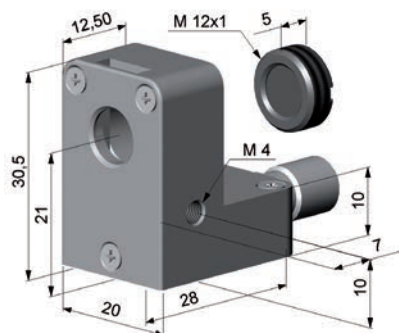
Dimensions optris CS



CF-lens (ACCTCF)



Air purge collar, optional with integrated CF-lens (ACCTAPLCF)



Mounting bracket, fixed (ACCTFB)

