

**Simple access into multiple sensor installations:
Smart, safe and easy from
-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 ... 80 °C
Storage temperature	-40 °C ... 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 (0-10 V)	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 ... 1030 °C
Spectral range	8 - 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

