

Two wire infrared sensor for rugged industrial applications



Features:

- Easy two wire installation
- Wide measurement range of $-30\text{ }^{\circ}\text{C}$ to $900\text{ }^{\circ}\text{C}$ ($-22\text{ }^{\circ}\text{F}$ to $1652\text{ }^{\circ}\text{F}$)
- Optional USB programming interface and software
- Wide power range: $5\text{--}30\text{ V DC}$
- Optical resolution of 22:1
- Simultaneous two wire output and digital communication
- Alarm output ($0\text{--}30\text{ V} / 500\text{ mA}$)

General specifications

Environmental rating	IP 65 (NEMA-4)
Ambient temperature	$-20\text{ }^{\circ}\text{C}$... $75\text{ }^{\circ}\text{C}$ ($-4\text{ }^{\circ}\text{F}$... $167\text{ }^{\circ}\text{F}$)
Storage temperature	$-40\text{ }^{\circ}\text{C}$... $85\text{ }^{\circ}\text{C}$ ($-40\text{ }^{\circ}\text{F}$... $176\text{ }^{\circ}\text{F}$)
Relative humidity	10–95%, non condensing
Vibration (sensor)	IEC 68-2-6: 3 G, 11–200 Hz, any axis
Shock (sensor)	IEC 68-2-27: 50 G, 11 ms, any axis
Weight	350 g (12.3 oz)

Electrical Specifications

Outputs / analog	0/4–20 mA
Output / alarm	0–30 V / 500 mA (open collector)
Outputs / digital	USB (optional)
Loop impedances	Max. 1000 Ω ¹⁾
Cable length	8 m (26.2 ft)
Power Supply	5–30 V DC

Measurement specifications

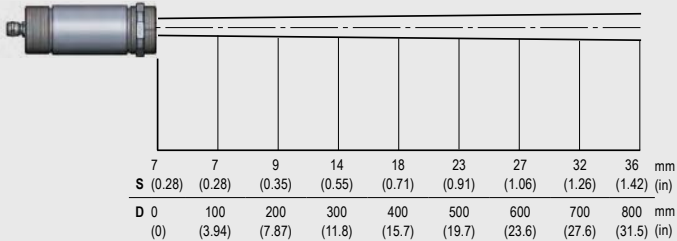
Temperature range (scalable via software)	$-30\text{ }^{\circ}\text{C}$... $900\text{ }^{\circ}\text{C}$ ($-22\text{ }^{\circ}\text{F}$... $1652\text{ }^{\circ}\text{F}$)
Spectral range	8–14 μm
Optical resolution (90% energy)	22:1
CF-Optics (optional)	0.6 mm @ 10 mm (0.02 in @ 0.39 in)
System accuracy (at ambient temp. $23 \pm 5\text{ }^{\circ}\text{C}$) ($23 \pm 41\text{ }^{\circ}\text{F}$)	$\pm 1\%$ or $\pm 1.5\text{ }^{\circ}\text{C}^2$ ($\pm 1\%$ or $\pm 2.7\text{ }^{\circ}\text{F}^2$)
Repeatability (at ambient temp. $23 \pm 5\text{ }^{\circ}\text{C}$) ($23 \pm 0.5\text{ }^{\circ}\text{F}$)	$\pm 0.75\%$ or $\pm 0.75\text{ }^{\circ}\text{C}^2$ ($\pm 0.75\%$ or $\pm 1.35\text{ }^{\circ}\text{F}^1$)
Temperature resolution (digital)	0.2 K
Response time (95 %)	150 ms
Emissivity/ Gain (adjustable via programming keys or software)	0.100–1.100
Transmissivity/ Gain (adjustable via programming keys or software)	0.100–1.100
Signal processing (parameter adjustable via programming keys or software, respectively)	Peak hold, valley hold, average; extended hold function with threshold and hysteresis
Software	optris® Compact Connect

¹⁾ In dependence on supply voltage

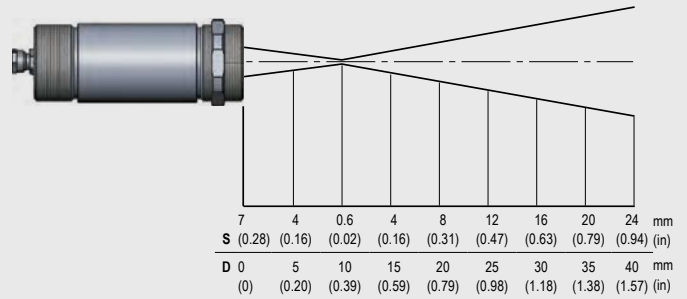
²⁾ Whichever is greater

Optical specifications

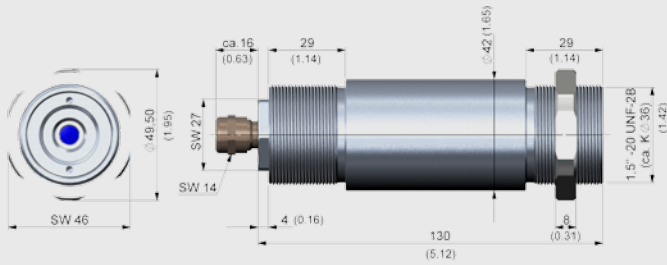
22:1 optics



22:1 optics with CF-lens

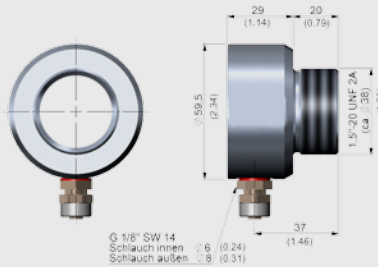


Dimensions

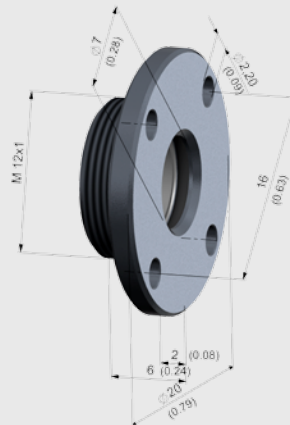


Accessories

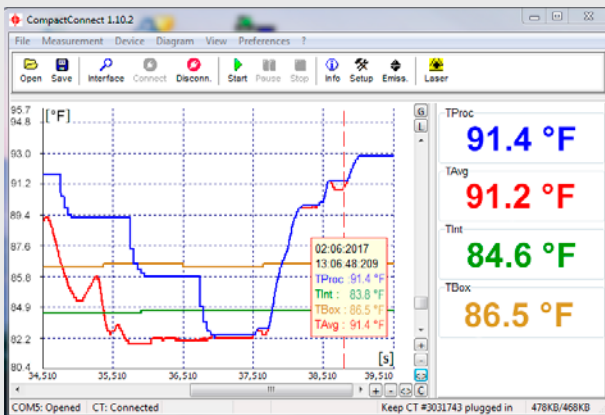
Air purge collar



CF-lens / Protective window



Compact Connect software



- Software for easy sensor setup and remote controlling, supports multi tasking
- Graphic display for temperature trends and automatic data logging for analysis and documentation with 1 ms response time
- Adjustment of signal processing functions and programming of outputs of the sensor
- Automatic emissivity adjustment
- The software CompactConnect allows to customize the sensor to application needs of the user