

## 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 $\Omega$ <sup>1)</sup>
Cable length	8 m (26.2 ft)
Power Supply	5–30 V DC

### Measurement specifications

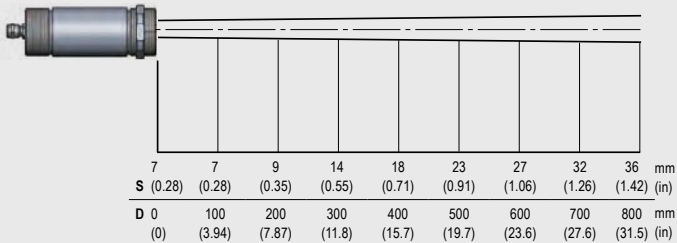
Temperature range (scalable via software)	$-30\text{ }^{\circ}\text{C}$ ... $900\text{ }^{\circ}\text{C}$ ( $-22\text{ }^{\circ}\text{F}$ ... $1652\text{ }^{\circ}\text{F}$ )
Spectral range	8–14 $\mu\text{m}$
Optical resolution (90% energy)	22:1
CF-Optics (optional)	0.6 mm @ 10 mm (0.02 in @ 0.39 in)
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

<sup>1)</sup> In dependence on supply voltage

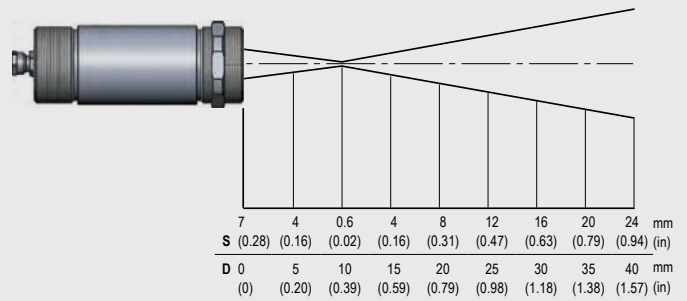
<sup>2)</sup> Whichever is greater

## Optical specifications

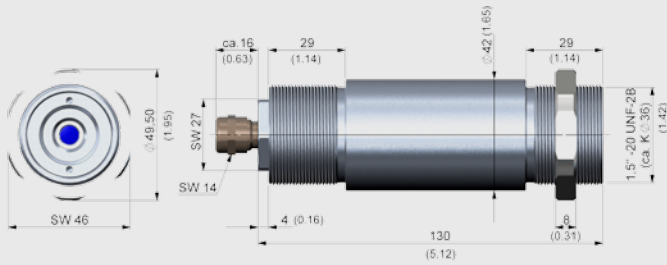
### 22:1 optics



### 22:1 optics with CF-lens

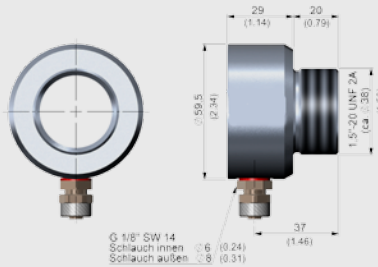


## Dimensions

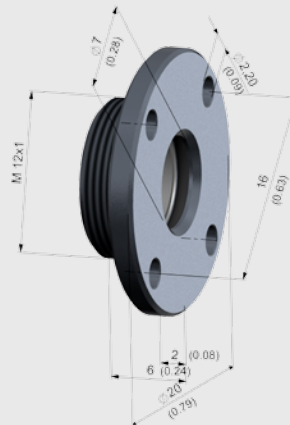


## Accessories

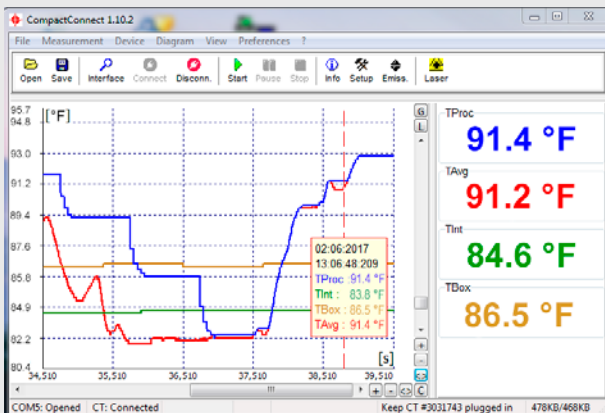
### Air purge collar



### 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