

## Datasheet

### Compact-Infrared-Thermometer Optris CX hs LT OPTCXHSLT15



Bitte beachten Sie, dass es sich bei diesem Produkt um ein nicht mehr verfügbares Produkt handelt (EOL). Wir beraten Sie gerne zu einem Ersatzprodukt.



<b>Article ID</b>	OPTCXHSLT15
<b>Model</b>	Kompakt-Infrarot-Thermometer Optris CX hs LT
<b>Variante</b>	integrated electronic
<b>Spectral range</b>	8 ... 14 $\mu\text{m}$
<b>Optical resolution (D:S)</b>	15 : 1
<b>Spot size: up from</b>	0,8 mm
<b>System accuracy</b>	$\pm 1^\circ\text{C}$ or $\pm 1\%$ at ambient temperature $23\pm 5^\circ\text{C}$
<b>Repeatability</b>	$\pm(0,3\%$ of reading $+0,3^\circ\text{C}$ ) at ambient temperature $23\pm 5^\circ\text{C}$
<b>Emissivity</b>	0,10 ... 1,10
<b>Response time</b>	150 mm
<b>Temperature resolution</b>	0,025 K
<b>Power supply</b>	5 - 30 VDC
<b>Outputs</b>	4 ... 20 mA, Alarm output 0-30V / 500 mA (open collector)
<b>Interface optional</b>	USB

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<b>Software</b>	optris CompactConnect (Windows), IRmobile (Android)
<b>Ambient temperature sensor head</b>	-20°C ... 75°C
<b>Ambient temperature electronics</b>	-20°C ... 75°C
<b>Sighting scope</b>	without
<b>Application</b>	Non-metals
<b>Manual</b>	<a href="#">Bedienungsanleitung Optris CX LT Serie</a>

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## Compact-Infrared-Thermometer Optris CX hs LT OPTCXHSLT15



### Infrared thermometer for measurement of smallest temperature differences of 0.025 K



#### Features:

- New benchmark in low noise infrared thermometry
- Suitable for relative measurement of smallest temperature differences of 0.025 K
- Touches the physical limits ensuring low ambient temperature drift
- Complete solid state design without any moving parts
- Assures usability of a new class of ultra low noise level infrared thermometers

#### General specifications

Environmental rating	IP 65 (NEMA-4)
Ambient temperature	-20 °C ... 75 °C (-4 °F ... 167 °F)
Storage temperature	-40 °C ... 85 °C (-40 °F ... 176 °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 <sup>1)</sup>
Cable length	8 m (26.2 ft)
Power Supply	5–30 V DC

#### Measurement specifications

Temperature range (scalable via software)	-30 °C ... 150 °C (-22 °F ... 302 °F)
Spectral range	8–14 μm
Optical resolution (90 % energy)	15:1
CF-Optics (optional)	0.8 mm @ 10 mm (0.03 in @ 0.39 in)
System accuracy (at ambient temp. 23 ±5 °C) (73 ±9 °F)	±1 % or ±1 °C <sup>2)</sup> (±1 % or ±1.8 °F <sup>2)</sup> )
Repeatability (at ambient temp. 23 ±5 °C) (73 ±9 °F)	±0.3 % or ±0.3 °C <sup>2)</sup> (±0.3 % or ±0.6 °F <sup>1)</sup> )
Temperature resolution	0.025 K (for temperatures >20 °C [>68 °F], AVG >0.2 s)
Response time (95 %)	150 ms (adjustable up to 999 s via optional programming device)
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

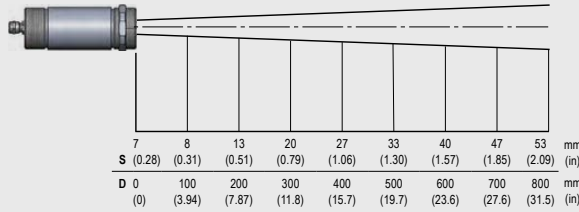
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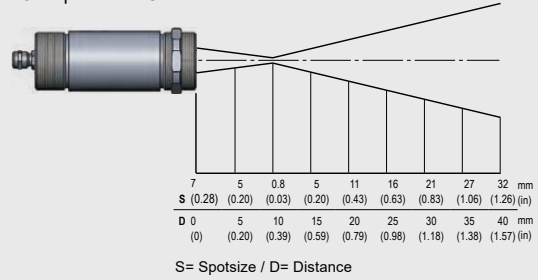


### Optical specifications

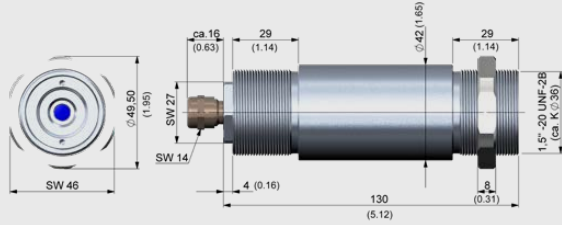
15:1 optics



15:1 optics with CF-lens

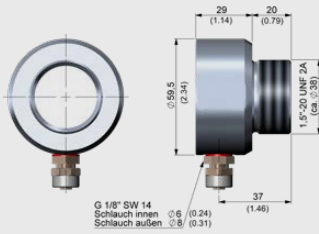


### Dimensions

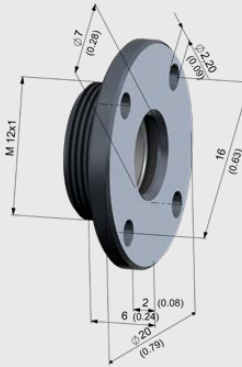


### Accessories

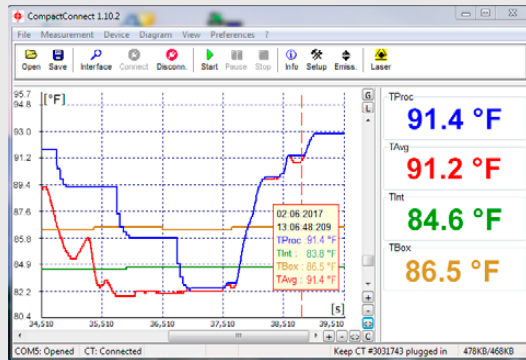
Air purge collar



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

Specifications are subject to change without notice · CX hs LT-US2018-08-A