

Precise noncontact temperature measurement of glass from 100 °C to 1650 °C (212 °F to 3002 °F)

Features:

- Accurate temperature measurement of flat glass, container glass, light bulb manufacturing, car glass production and manufacturing of photovoltaic cells from 100 °C to 1650 °C (212 °F to 3002 °F)
- Applicable up to 85 °C (176 °F) ambient temperature without additional cooling



General specifications

Environmental rating	IP 65 (NEMA-4)
Ambient temperature	-20 °C ... 85 °C (-4 °F ... 176 °F) (sensing head) 0 °C ... 85 °C (32 °F ... 176 °F) (electronics)
Storage temperature	-40 °C ... 85 °C (-40 °F ... 176 °F) (sensing head) -40 °C ... 85 °C (-40 °F ... 176 °F) (electronics)
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	42 g (1.5 oz) (sensing head) 420 g (14.8 oz) (electronics)

Electrical Specifications

Outputs / analog	Channel 1: 0/4–20 mA, 0–5/10 V, thermocouple J, K Channel 2: sensing head temperature (-20 °C ... 85 °C [-4 °F ... 176 °F] as 0–5 V or 0–10 V), alarm output
Output / alarm	24 V / 50 mA (open collector)
Optional	Relay: 2 x 60 V DC/ 42 V AC _{eff} ; 0.4 A; optically isolated
Outputs / digital	USB, RS232, RS485, CAN, Profibus DP, Ethernet (optional)
Output impedances	mA max. 500 Ω (with 8–36 V DC) mV min. 100 kΩ load impedance, thermocouple 20 Ω
Inputs	Programmable functional inputs for external emissivity adjustment, ambient temperature compensation, trigger (reset of hold functions)
Cable length	3 m (standard), 8 m, 15 m (9.8 ft [standard], 26.2 ft, 49.2 ft)
Power Supply	8–36 V DC
Current draw	Max. 100 mA

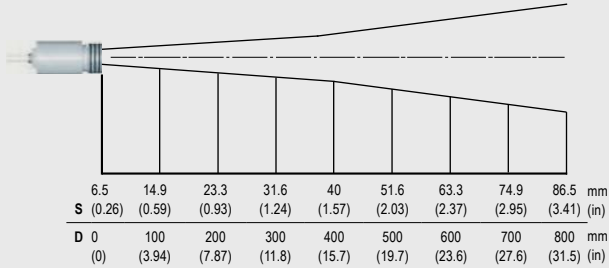
Measurement specifications

Temperature range (scalable via programming keys or software)	100 °C ... 1200 °C (212 °F ... 2192 °F) (G5L) 250 °C ... 1650 °C (482 °F ... 3002 °F) (G5H)
Spectral range	5 μm
Optical resolution (90 % energy)	10:1 (G5L) 20:1 (G5H)
System accuracy (at ambient temp. 23 ±5 °C) (23 ±41 °F)	±1 % or ±2 °C ¹⁾ (±1 % or ±3.6 °F ¹⁾)
Repeatability (at ambient temp. 23 ±5 °C) (23 ±0.5 °F)	±0.5 % or ±0.5 °C ¹⁾ (±0.5 % or ±0.9 °F ¹⁾)
Temperature resolution (NETD)	0.1 K / 0.2 K (G5H)
Response time (90 % signal)	80 ms (G5H) 120 ms (G5L)
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

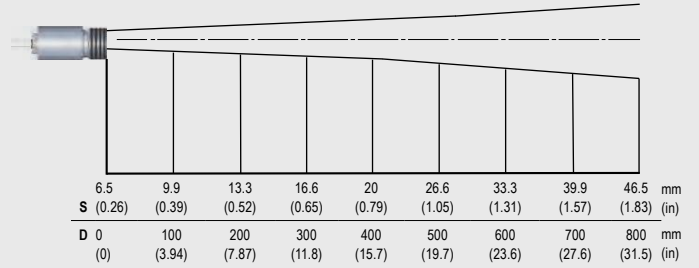
¹⁾ Whichever is greater

Optical specifications

10:1 optics

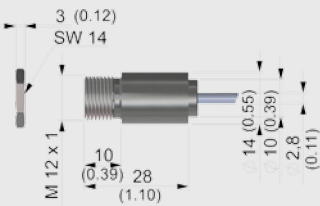


20:1 optics

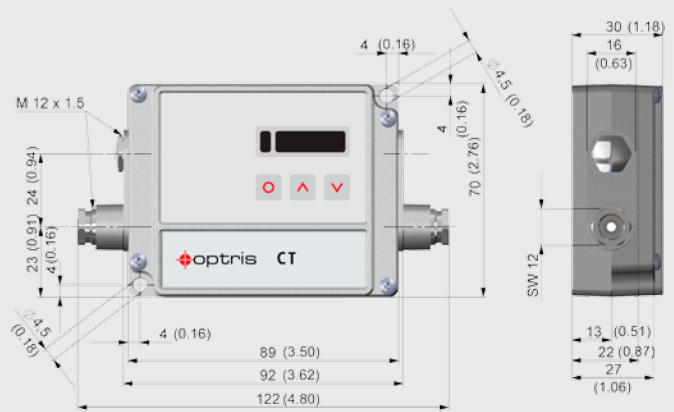


Dimensions

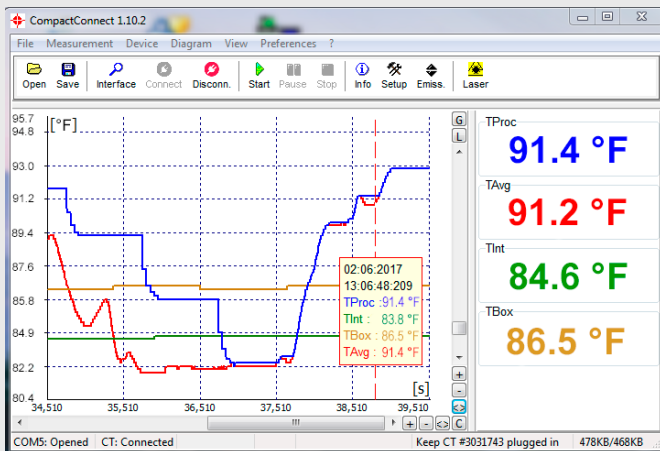
Sensing head



Electronics



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 and functional inputs of the sensor
- Automatic emissivity adjustment
- The software CompactConnect allows to customize the sensor to application needs of the user