

# More Precision.

## optris® CT G5

Precise noncontact temperature measurement  
of glass from 100 to 1650°C



### FEATURES

- Accurate temperature measurement of flat glass, container glass, light bulb manufacturing, gar glass production and manufacturing of photovoltaic cells from 100°C to 1650°C
- Applicable up to 85°C ambient temperature without cooling

| General specifications     |  |
|----------------------------|--|
| Environmental rating       | IP 65 (NEMA-4)   |
| Ambient temperature        | sensing head: -20 - 85°C<br>electronics: 0 - 85°C  |
| Storage temperature        | sensing head: -40 - 85°C<br>electronics: -40 - 85°C  |
| 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                     | sensing head 42 g<br>electronics 420 g   |
| Electrical specifications  |  |
| Outputs/analog             | channel 1: 0/4 - 20 mA, 0 - 5/10 V, thermocouple J, K<br>channel 2: sensing head temperature (-40 - 85°C as 0 - 5 V or 0 - 10 V), alarm output |
| Alarm output               | Open - collector (24V/5mA)   |
| Optional                   | relay: 2 x 60 V DC/42 V AC <sub>eff</sub> ; 0.4 A; optically isolated  |
| Outputs/digital (optional) | USB, RS232, RS485 (optional), CAN-Bus, Profibus DP, Ethernet   |
| Output impedances          | mA max. 500 Ω (with 8 - 36 V DC)<br>mV min. 100 kΩ load impedance<br>thermocouple 20 Ω   |
| Inputs                     | programmable functional inputs for external emissivity adjustment, ambient temperature compensation, trigger                                   |
| Cable length               | 3 m (standard), 8 m, 15 m  |
| Current draw               | max. 100 mA  |
| Power supply               | 8 - 36 V DC  |

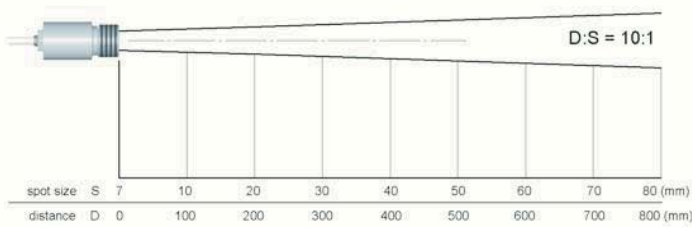
| Measurement specifications  |   |
|---|---|
| Temperature range (scalable via programming keys or software)                           | 100°C - 1200°C (G5L)<br>250°C - 1650°C (G5H)  |
| Spectral range  | 5,2 μm  |
| Optical resolution (90 % Energy)  | 10:1 (G5L)<br>20:1 (G5H)  |
| System accuracy (at ambient temperature 23 ±5°C)  | ±1 % or ±2°C <sup>1</sup>   |
| Repeatability (at ambient temperature 23 ±5°C)  | ±0,5 % or ±0,5°C <sup>1</sup>   |
| Temperature resolution (NETD)   | 0,1°C (G5L) / 0,2°C (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 |

<sup>1</sup> whichever is greater

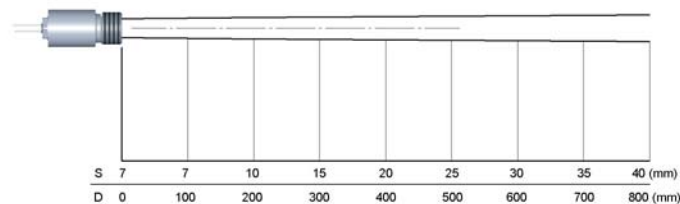
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## Optical specifications

10:1optics

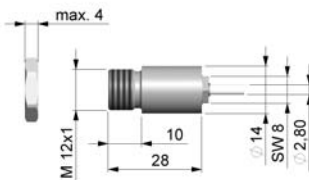


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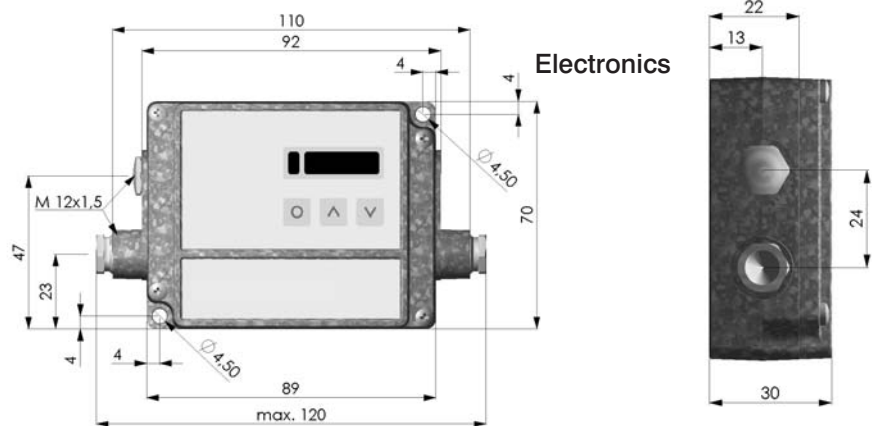


## Dimensions

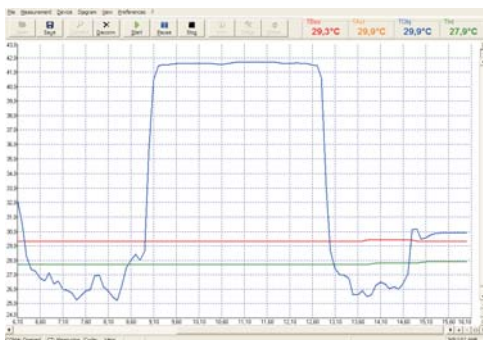
### Sensing head



### 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

## Optris GmbH

Ferdinand-Buisson-Str. 14  
13127 Berlin

Tel.: +49 (0) 30 500 197-0  
Fax: +49 (0) 30 500 197-10

info@optris.de  
www.optris.de

Development and sales of portable and stationary infrared measuring instruments.

Specifications are subject to change without notice.  
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