PEDAK
meettechniek

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, car 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
	electronics: 0 - 85°C
Storage temperature	sensing head: -40 - 85°C
	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
	electronics 420 g

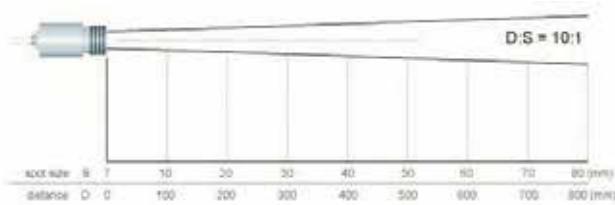| Electrical specifications	
Outputs/analog	channel 1: 0/4 - 20 mA, 0 - 5/10 V, thermocouple J, K
	channel 2: sensing head temperature (-20 - 85°C as 0 - 5 V or 0 - 10 V), alarm output
Alarm output	Open - collector (24V / 5mA)
Optional	relay: 2 x 60 V DC/42 V AC$_{eff}$; 0.4 A; optically isolated
Outputs/digital (optional)	USB, RS232, RS485 (optional), CAN-Bus, Profibus DP, Ethernet
Output impedances	mA max. 500 Ω (with 8 - 36 V DC)
	mV min. 100 kΩ load impedance
	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

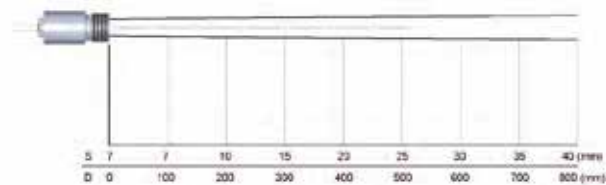| Measurement specifications	
Temperature range (scalable via programming keys or software)	100°C - 1200°C (G5L)
	250°C - 1650°C (G5H)
Spectral range	5.2 μm
Optical resolution (90 % Energy)	10:1 (G5L)
	20:1 (G5H)
System accuracy (at ambient temperature 23 $\pm$5°C)	$\pm$1% or $\pm$2°C[1]
Repeatability (at ambient temperature 23 $\pm$5°C)	$\pm$0.5% or $\pm$0.5°C[1]
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

[1] whichever is greater

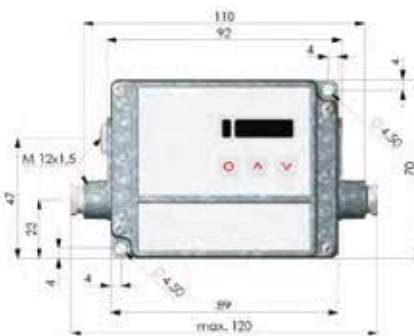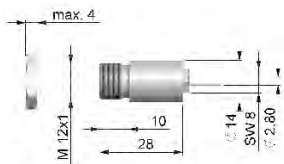# optris® **CT G5**

Optical specifications

10:1 optics

D:S = 10:1

| spot size | S | 7 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 (mm) |
| distance | D | 0 | 100 | 200 | 300 | 400 | 500 | 600 | 700 | 800 (mm) |

20:1 optics

| | 5 | 7 | 7 | 10 | 15 | 23 | 25 | 30 | 35 | 40 (mm) |
| | D | 0 | 100 | 200 | 300 | 400 | 500 | 600 | 700 | 800 (mm) |

Dimensions

Sensing head

max. 4

M 12x1

10

28

Ø 14

SW 8

Ø 2,80

110

92

4

M 12x1,5

47

23

4

Ø 4,50

Ø 4,50

70

89

max. 120

Electronics

22

13

24

30

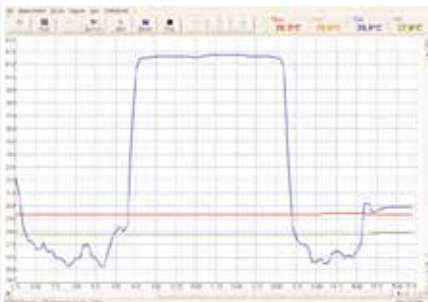## Compact Connect Software

- 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