PROCESS SENSORS CORPORATION

a KPM brand

PSC-SSS-G5

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

FEATURES

- Accurate glass temperature measurements on float glass lines, container glass machines, bulb manufacturing, automotive glass tempering lines and the production of solar cells in the range of 100°C up to 1650°C
- Ultra-small sensor head
- Wide temperature range
- Rugged and useable up to 85° ambient temperature without cooling
- Analog outputs: 0/4-20 mA, 0 - 5 / 0 - 10 VDC thermocouple type J or K
- Optional: USB, RS485, RS232 interface, relay outputs (2X optically isolated)
- Temperature measurement in manufacturing processes from 100°C (212°F) to 1650°C (3002°F)

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 VDC, thermocouple J, K 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_{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/9.8 ft (std), 8 m/26 ft, 15 m/49 ft
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 ±5°C)	±1 % or ±2°C[1]
Repeatability (at ambient temperature 23 ±5°C)	±0.5 % or ±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

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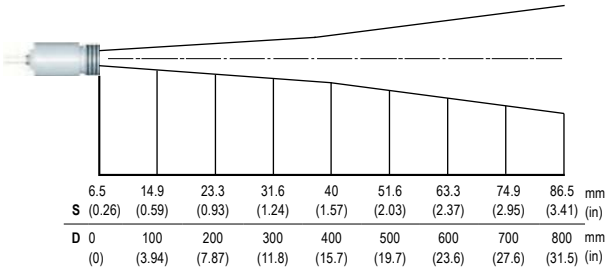
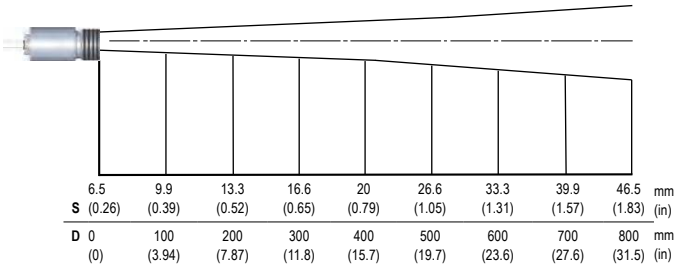
Optical Specification

10:1 optics

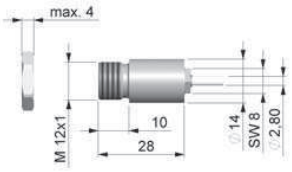


20:1 optics

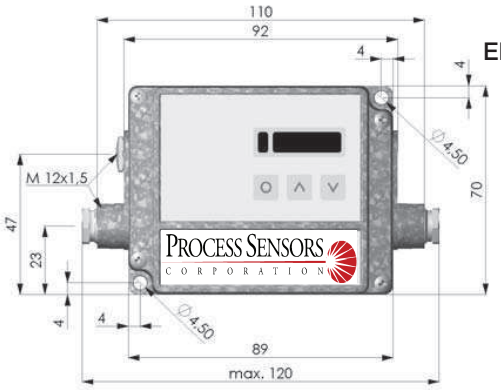


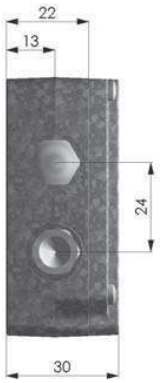
Dimensions

Sensing head

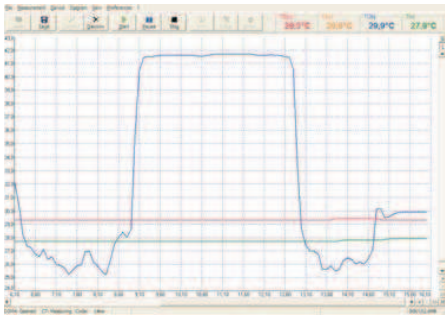


Electronics





PSC 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 PSC Connect allows to customize the sensor to application needs of the user

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