

## PSC-CS-Laser-G5HF

Two-wire infrared thermometer for temperature measurement of glass surface from 200°C to 1650°C



### FEATURES

- Wide Temperature Range: 200-1650°C/392-3002°F
- Scalable 4-20mA output in combination with simultaneous alarm output
- On board emissivity adjustment or remote via software
- Small spot size down to 0.064 (1.6mm)
- Loop-powered 2-wire interface for ease of installation
- Innovative double-laser sighting for pinpoint targeting of measurement area (4 wire connection)
- Adjustment of all IR sensor parameters with real-time graphical display software via USB
- Ambient temperature rating up to 85°C

#### General specifications

Environmental rating	IP 65 (NEMA-4) front mountable at vacuum processes (up to 10 <sup>-3</sup> mbar)
Ambient temperature	-20°C to 85°C (50°C with laser ON)
Storage temperature	-40°C to 85°C
Relative humidity	10 - 95%, non condensing
Vibration	IEC 68-2-6: 3 G, 11-200 Hz, any axis
Shock	IEC 68-2-27: 50 G, 11 ms, any axis
Weight	600 g

#### Electrical specifications

Output / analog	4 to 20 mA
Loop resistance	max. 1000 Ω <sup>1)</sup>
Output / alarm	0 - 30 V / 500 mA (open-collector)
Output/ digital	uni-/ bidirectional, 9,6 kBaud, 0/3 V Pegel, USB optional
Cable length (connector version only)	3 m / 8 m / 15 m
Current draw (laser)	45 mA at 5 V 20 mA at 12 V 12 mA at 24 V
Power supply	5 - 28 V DC

#### Measurement specifications

Temperature range (scalable via software)	200°C to 1650°C 392°F to 3002°F
Spectral range	5 μm
Optical resolution (90 % energy)	45:1
System accuracy (at T <sub>amb</sub> = 23 ± 5°C)	± 1%
Repeatability (at T <sub>amb</sub> = 23 ± 5°C)	± 0.5%
Temperature resolution	0.1 K
Response time (90% signal)	30 ms
Emissivity/ Gain (adjustable via sensor or software)	0.100 - 1.100
IR window correction (adjustable via software)	0.100 - 1.000
Signal processing (parameter adjustable via software)	peak hold, valley hold, average; extended hold function with threshold and hysteresis
Software	PSC Compact Connect

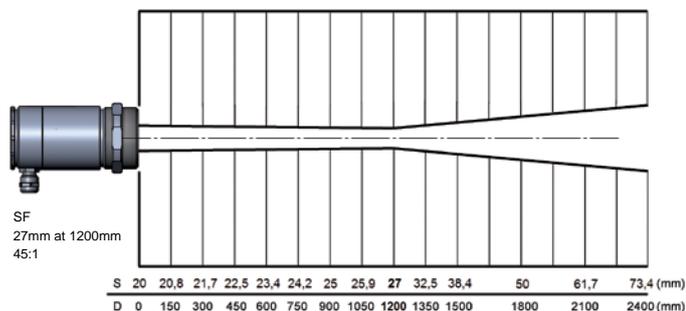
<sup>1)</sup> dependent on supply voltage

Pioneering infrared sensors for the Glass Industry

Field of View Diagram

FOV of SF (Std. Focus) optics, D:S = 45:1

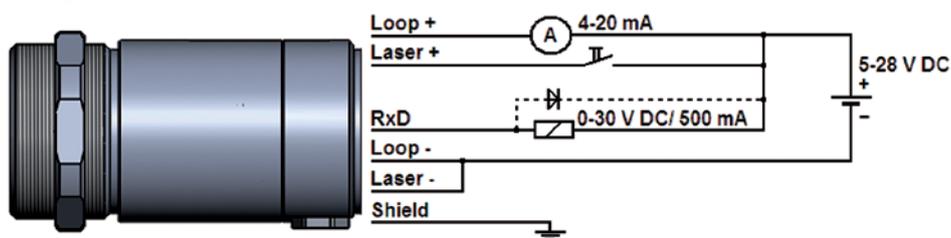
Optical choices: D:S = 45:1



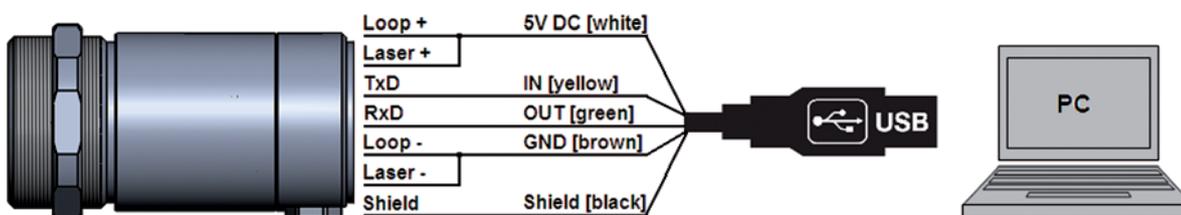
...SF	27.0 mm @ 1200 mm
...CF1	1.6 mm @ 70 mm
...CF2	3.4 mm @ 150 mm
...CF3	4.5 mm @ 200 mm
...CF4	10.0 mm @ 450 mm

Wiring Connections

Analog mode of operation



Digital mode of operation



IR Sensor Dimensions

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Electrical connections /  
emissivity adjustment  
(sensor back side)

