

PSC-CS-Laser-LT

Digital 2-wire, Self-Contained IR thermometer with Precision Dual Laser targeting from -30°C to 1000°C (-22°F to 1832°F)



FEATURES

- Fast, high accuracy and small spot size
- Optical resolution up to 50:1 with selectable optics
- Double laser aiming identifies real spot location and actual spot size at any distance
- Scalable 4-20 mA output in combination with simultaneous alarm output
- USB programming interface and software - optional
- On board emissivity adjustment or remote via software
- Short circuit and polarity reversal protection
- Usable up to 85°C ambient temperature without cooling
- Automatic laser switch off at 50°C
- Wide power requirement range: 5 to 28 V DC

General Specifications

| | |
|----------------------|--------------------------------------|
| Environmental rating | IP 65 (NEMA-4) |
| Ambient temperature | -20 - 85°C (50°C with laser on) |
| Storage temperature | -40 - 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 - 20 mA |
| Loop resistance | max. 1000 Ω ¹⁾ |
| Output/ alarm | 0-30 V/ 500mA (open collector) |
| Output/ digital | uni-/ bidirectional, 9.6 kBaud, 0/3 V digital level, USB optional |
| Cable length (connector version only) | 3 m/ 8 m/ 15 m |
| Current draw (laser) | 45mA @ 5V 20mA @ 12V 12mA @ 24V |
| Power supply | 5 - 28 V DC |

¹⁾ in dependence on supply voltage

Measurement Specifications

| | |
|--|---|
| Temperature range (scalable via software) | (LT) -30 to 1000°C/-22 to 1832°F |
| Spectral range / model | 8 - 14 μm / PSC-CS Laser-LT |
| Optical resolution | 50:1 |
| System accuracy (at ambient temperature 23 ± 5°C) | ± 1% or ± 1°C ¹⁾ |
| Repeatability (at ambient temperature 23 ± 5°C) | ± 0.5% or ± 0.5°C ¹⁾ |
| Temperature resolution (digital) | 0.1 K |
| Response time (90% signal) | 150 ms |
| Emissivity/ Gain (adjustable via switches or via 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 |

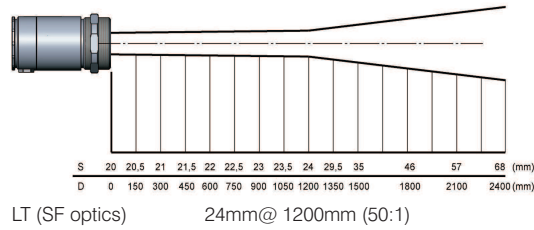
¹⁾ whichever is greater

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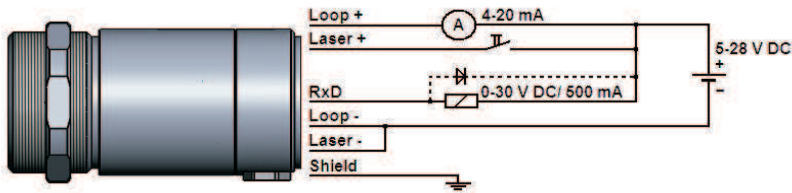
Optical Specifications

LT optics

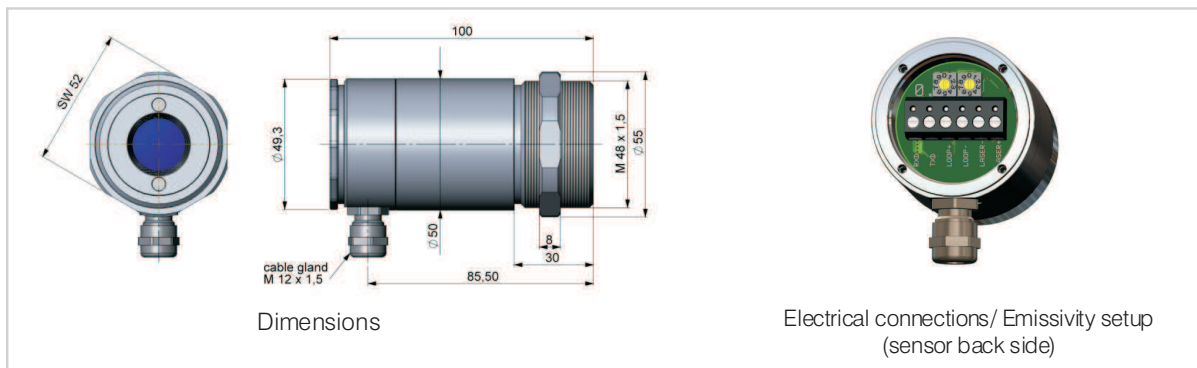
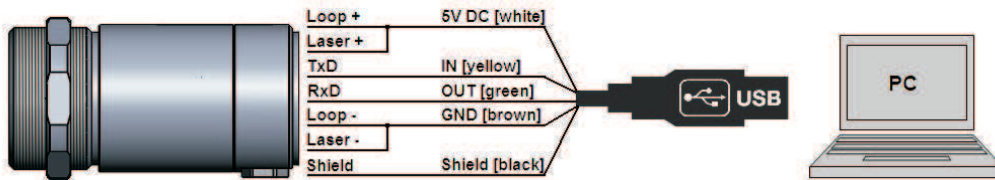
| | |
|--------|----------------|
| ...SF | 24 mm@ 1200 mm |
| ...CF1 | 1.4 mm@ 70 mm |
| ...CF2 | 3 mm@ 150 mm |
| ...CF3 | 4 mm@ 200 mm |
| ...CF4 | 9 mm@ 450 mm |



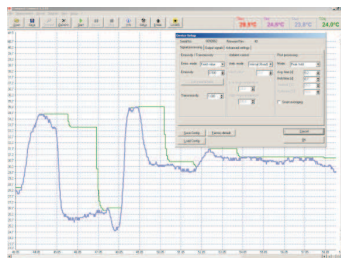
Analog mode: 4-20mA



Programming mode: USB



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 the sensor outputs
- The software PSC Connect allows to customize the sensor to application needs of the user