



## CS micro 2W LT

### low cost micro size two-wire infrared thermometers for -30 - 900°C

- Temperature range: -30°C to 900°C
- Size: M12x1, 28 mm long, stainless steel housing
- Scalable 4 - 20 mA analog output / additional simultaneous alarm output
- Rugged coated silicon optics
- Usable up to 120°C ambient temperature without cooling (sensing head)
- Cable built in electronics
- Short circuit and polarity reversal protection
- Adjustable signal processing
- Optional USB programming interface and software
- Wide power range: 5 - 30 V DC



#### ■ General specifications

Environmental rating	IP65 (NEMA-4)
Ambient temperature	-20 - 120°C (sensing head) -20 - 75°C (electronics)
Storage temperature	-40 - 85°C (sensing head and electronics)
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	42g

#### ■ Electrical specifications

Output/analog	4 - 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 digital level, USB optional
Cable length	1 m 0.5 m between sensing head and electronics 0.4 m between electronics and terminal
Power supply	5 - 30 V DC

<sup>1)</sup> in dependence on supply voltage

#### ■ Measurement specifications

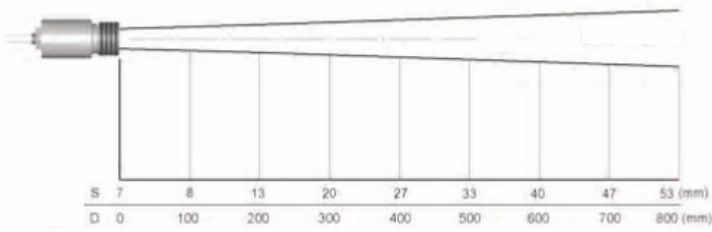
Temperature range (scalable via software)	-30 - 900°C
Spectral range	8 - 14 μm
Optical resolution (90% energy) CF-lens (optional)	15:1 0.8 mm @ 10 mm
System accuracy	± 1.0% or ± 1.5°C <sup>1), 2)</sup>
Repeatability	± 0.75% or ± 0.75°C <sup>1), 2)</sup>
NETD	0.1 K <sup>1), 3)</sup>
Response time (90%)	30 ms
Emissivity/Gain (adjustable via software)	0.100 - 1.100
Transmissivity (adjustable via software)	0.100 - 1.000
Signal processing (parameter adjustable via software)	peak hold, valley hold, average
Dimensions of electronics	Length 45 mm diameter 12 mm

<sup>1)</sup> object temperature > 0°C; whichever is greater

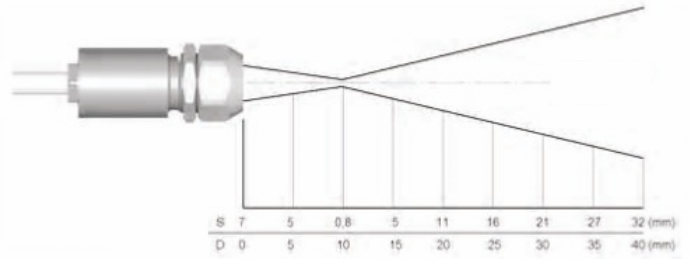
<sup>2)</sup> at ambient temperature 23 ± 5°C, ε= 1, response time 1s

<sup>3)</sup> at time constant 50 ms and Tobj 25°C

**Optical specifications**



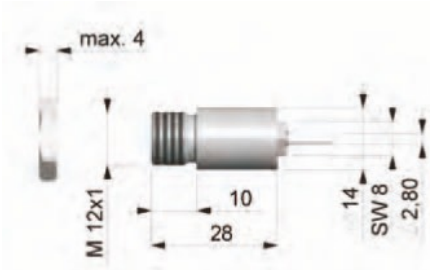
CSmicro 2W  
LT D:S = 15:1



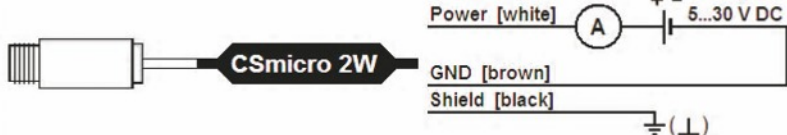
CSmicro 2W LT with CF-lens  
D:S = 15:1 (far field = 1,2:1)

**Dimensions/Connections**

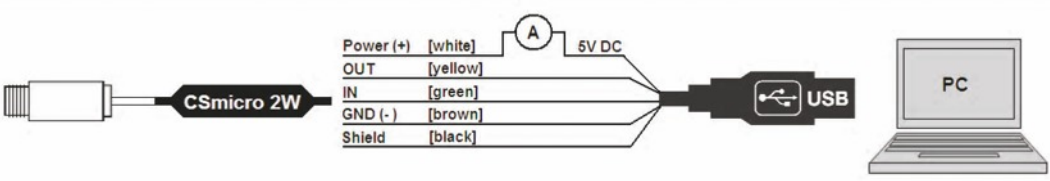
Dimensions CSmicro 2W



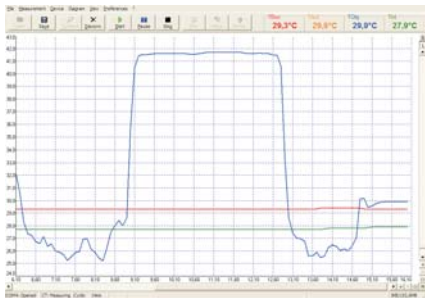
Analog Mode (Two wire connection)



Combined Mode (analog and digital)



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

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