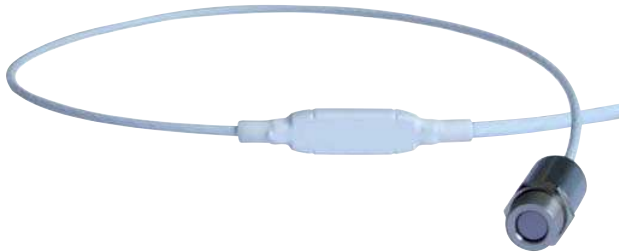


## PSC-CMS-3M Compact Micro Sensor

Low cost infrared thermometer for temperature measurement of metal alloys from 50 - 600 °C



### Features

- Compact Infrared Sensor with 2.3 μm spectral response for measurements of metal alloys and ceramic materials
- Digital stainless steel IR sensor: M12x1, 28mm long
- Low temperature (50°C) sensing for low emissivity surfaces
- Green LED alarm indication, aiming support, self diagnostic or temperature code indication
- Scalable analog output: 0-10 V or 0-5 V and additional simultaneous alarm output
- Sensing head ambient rating to 85°C (185°F)
- Optional USB programming interface and software
- Wide power range: 5-30 V DC

General Specifications	
Environmental rating	IP 65 (NEMA-4)
Ambient temperature	-20°C to 85°C (sensing head) -20°C to 80°C (electronics)
Storage temperature	-40°C to 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	42 g

Electrical Specifications	
Output/analog	0-5 V or 0-10 V 1/10/100 mV/°C
Output/alarm	24 V/50 mA (open collector)
Output/digital	uni-/bidirectional, 9.6 kBaud, 0/3V digital level, USB optional
Input (0-10 V)	Programmable functional input for external emissivity setting/ambient temperature adjustment, triggered signal output or peak-hold function
LED-functions	alarm indication, automatic aiming support, self diagnostic, temperature indication (via. temp.code)
Cable length	
head - electronics:	0.5 m (standard), 3 m
after electronics:	0.5 m (standard), 3 m
Power supply	5-30 V DC
Current draw	9 mA

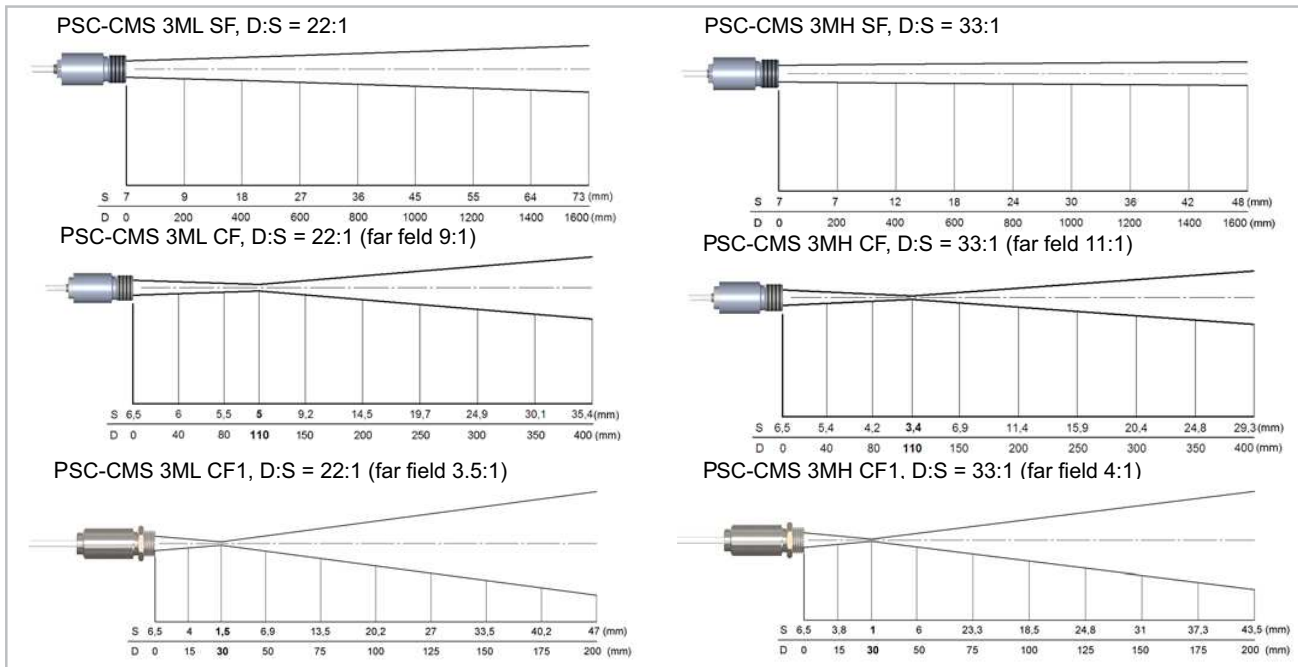
Measurement Specifications	
Temperature range <sup>1)</sup> (scalable via software)	50°C to 350°C (3ML) 100°C to 600°C (3MH)
Spectral range	2.3 μm
Optical resolution (90 % energy)	22:1 (3ML) 33:1 (3MH)
Optics	SF, CF, CF1
System accuracy <sup>2)</sup> (at ambient temp. 23 ±5°C)	± (0.3% of reading + 2°C)
Repeatability (at ambient temp. 23 ±5°C)	± (0.1% of reading + 1°C)
Temperature resolution	0.1 K
Response time <sup>3)</sup> (90%)	25 ms - 999 s (adjustable)
Emissivity/Gain (adjustable via 0-5 V DC input or software)	0.100 - 1.100
Transmissivity (adjustable via software)	0.100 - 1.100
Signal processing (parameter adjustable via software)	peak hold, valley hold, average; extended hold function with threshold and hysteresis
Dimensions of electronics	length: 35 mm diameter: 12 mm
Software	PSC Connect

<sup>1)</sup>  $T_{object} > T_{sensing\ head} + 25^{\circ}C$

<sup>2)</sup>  $\epsilon = 1$ , Response time 1 s

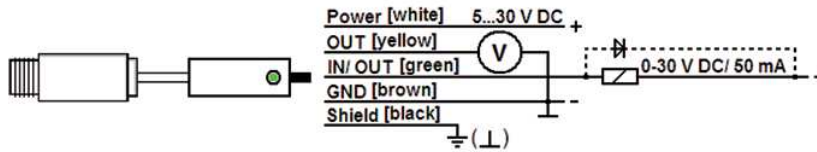
<sup>3)</sup> with dynamic adaptation at low signal levels

## Optical Specifications



## Interfaces/Dimensions

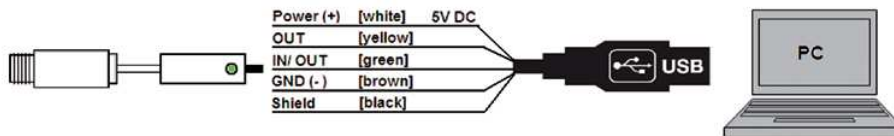
Analog connection with open collector alarm output



Dimensions PSC-CMS-3M-SF  
3M-CF



Digital connection with USB adapter cable



Dimensions PSC-CMS-3M-CF1

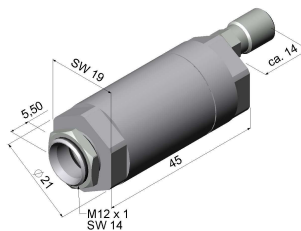


## Accessories (examples)

Mounting bolt



Air purge collar (AC-SSS-AP)



Mounting bracket,  
fixed  
(AC-SSS-TFB)

