

PSC-CS Compact Sensor

Compact, low cost IR thermometer packed with powerful features and value



FEATURES

Wide temperature range: -40°C to 1030°C

Response time: 25 ms

Optical Resolution 15:1

Green LED alarm indication, aiming support, self-diagnostic

Ambient temperature rating up to 80°C without cooling

Scalable analog output:

0-10 V or 0-5 V + alarm output or digital output

USB programming interface, direct serial 9.6 kBaud interface

Wide power range 5-7, 12-28 V DC

General Specifications

Environmental rating	IP 63
Ambient temperature	-20°C to 80°C
Storage temperature	-20°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	58 g (2.04 oz)

Electrical Specifications

Output/analog	0-5 V or 0-10 V free scalable or alarm with adjustable voltage levels
Output/alarm	0-30 V/50 mA (open collector)
3-state alarm output	adjustable threshold values and voltage level for: no alarm, pre-alarm, alarm
Output/digital	uni/bidirectional, 9.6 kBaud, 0/3 V digital level/USB optional
Input (0-10V)	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	1 m (standard) 3 m, 8 m, 15 m
Power supply	5-7, 12-28 V DC
Current draw	4 mA (without LED)/10 mA

Measurement Specifications

Temperature range (scalable via software)	-40°C to 1030°C
Spectral range	8 to 14 μm
Optical resolution (90 % energy)	15:1
CF-lens (optional)	0.8 mm @ 10 mm
System accuracy (at ambient temp. 23 ± 5°C)	± 1.5% or ± 1.5°C ¹⁾
Repeatability (at ambient temp. 23 ± 5°C)	± 0.75% or ± 0.75°C ¹⁾
Temperature coefficient	± 0.05 K/K or ± 0.05 % K ³⁾
NETD	0.1 K ²⁾
Response time (90%)	25 ms (adjustable up to 999 s)
Emissivity/Gain (adjustable via 0-10 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
Software	PSC-Connect

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

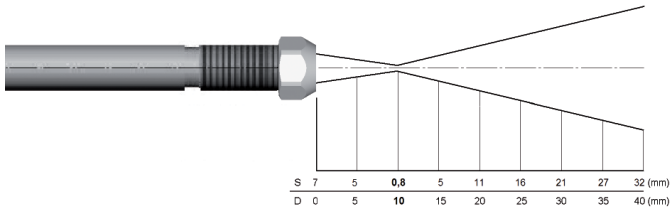
²⁾ at time constant 100 ms and T_{obj} 25°C

³⁾ for ambient temperatures <18°C and >28°C; whichever is greater

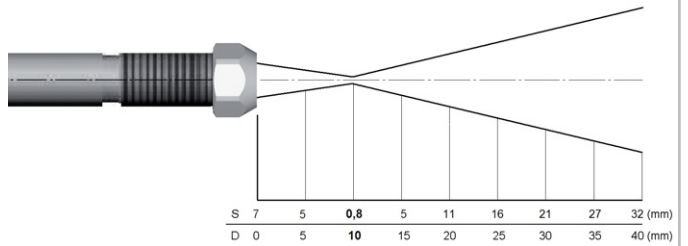
PSC-CS Compact Sensor

Optical Specifications

Optics, Distance to Size Ratio = 15:1



Optics with CF-lens, Distance to Size Ratio = 15:1



Connections

Connection analog with open collector alarm output

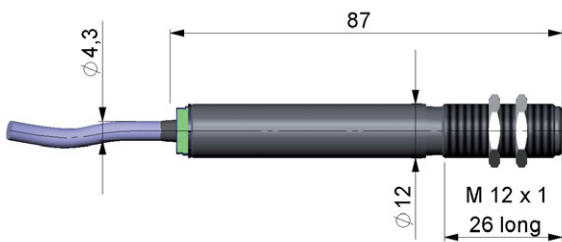


Connection digital with USB adapter cable

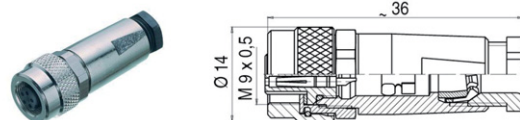


Dimensions

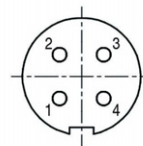
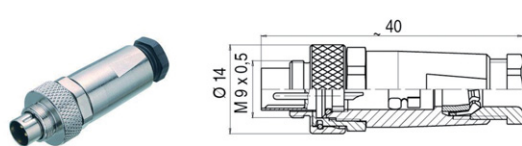
Dimensions PSC-CS Compact Sensor



Optional connector to existing equipment



Optional connector to pyrometer



pole chart contact side
1 green 2 brown
3 white 4 yellow

Specifications are subject to change without notice