



# More Precision

**thermoMETER** // Non-contact IR temperature sensors





### thermoMETER CS

Compact OEM sensor with integrated controller

- Measuring range from  $-40^{\circ}\text{C}$  to  $400^{\circ}\text{C}$
- Applicable in ambient temperatures up to  $80^{\circ}\text{C}$  without cooling
- Robust, silicon-coated lens
- Integrated controller with LED alarm display and intelligent sighting aid, alarm signal, temperature-code display or self-diagnostics
- Protection against short circuit and polarity change
- Programmable controller
- Different outputs: 0-10V or 0-5V freely scalable, thermocouple type K, alarm output, digital output
- Optional USB interface and software for programming, direct, serial 9.6kBaud interface
- Extensive supply voltage range: 5 - 30VDC
- Best price - ideal for OEM applications
- *Please note: available from 10 pieces*

#### Optical specifications thermoMETER CS

□ = smallest spot size (mm)

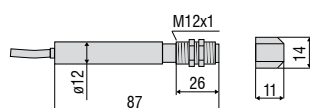
Standard Focus										
SF15	15:1	7	8	13	20	27	33	40	47	53
	distance (mm)	0	100	200	300	400	500	600	700	800
Close Focus (with optionally available CF lens)										
CF15	15:1	7	5	0.8	5	11	16	21	27	32
	distance (mm)	0	5	10	15	20	25	30	35	40

Model	CS-SF15-C1	CSTK-SF15-C1
Optical resolution	15:1	
Temperature range <sup>1</sup>	-40°C to 400°C	
Spectral range	8 to 14µm	
System accuracy <sup>2</sup>	±1.5% or ±1.5°C	
Repeatability <sup>2</sup>	±0.75% or ±0.75°C	
Temperature resolution <sup>3</sup>	0.1°C	
Response time	25ms to 999s (90 %), adjustable	
Emissivity/gain	0.100 to 1.100 (adjustable via 0 to 5VDC input or software)	
Transmissivity <sup>1</sup>	0.100 to 1.100	
Signal processing <sup>1</sup>	peak hold, valley hold, average; extended hold function with threshold and hysteresis	
Certificate of calibration	optional	
Outputs/analog	0 to 5V or 0 to 10V 1/10/100 mV/ °C	additional thermocouple type K 0 to 5V or 0 to 10V
Alarm output	alarm 0-30V/50mA (open collector)	
3-state alarm output	adjustable thresholds and voltage levels for: no alarm, pre-alarm, alarm	
Outputs/digital	mono-/bidirectional, 9.6kBaud, 0/3V level/USB optional	
LED functions	alarm display, automatic aiming aid, self-diagnostics, temperature display (via temp. code)	
Inputs	programmable functional inputs for external emissivity adjustment, ambient temperature compensation (0 to 5VDC), hold function or RS232 / USB (optional) communication	
Cable length	1m (standard), 3m, 8 m, 15m	
Power supply	4mA (without LED); 10mA (5 to 30VDC)	
Protection class	IP63 (NEMA-4)	
Ambient temperature	-20°C to 80°C	
Storage temperature	-20°C to 85°C	
Relative humidity	10 to 95%, non condensing	
Vibration	IEC 68-2-6: 3 G, 11 to 200Hz, any axis	
Shock	IEC 68-2-27: 50 G, 11ms, any axis	
Weight	58g	

<sup>1</sup> adjustable via software

<sup>2</sup> at ambient temperature: 23 ±5°C; whichever is greater; object temperature ≥ 0°C

<sup>3</sup> with object temperature <100°C; time constant of >0.2s



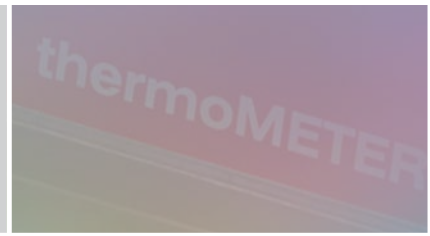
#### Product identification

CS -	SF15-	C1
		Cable length [1m (standard) / 3m / 8m / 15m]
		Focus [SF]
thermoMETER CS		

#### Accessories page 54-55

- Ancillary CF lens
- Protective window
- Mounting bracket / Mounting bolt
- Air purge collar
- Right angle mirror





**Mechanical accessories CS / CSmicro / CSmicro 2W**

Art. No.	Model	Description
2970279	TM-FB-CS	Mounting bracket, fixed
2970280	TM-AB-CS	Mounting bracket, adjustable
2970281	TM-MB-CS	Mounting bolts with M12x1 thread
2970282	TM-MG-CS	Mounting fork, adjustable in 2 axes, with M12x1 fastening
2970283	TM-AP-CS	Air purge collar for 10:1 sensors
2970284	TM-APL-CS	Air purge collar, laminar
2970285	TM-APLCF-CS	Air purge collar, laminar, with integrated ancillary CF lens
2970286	TM-RAM-CS	Right angle mirror for measurements 90° to the sensor axis
2970287	TM-USBK-CS	USB kit: USB programming adapter, software CompactConnect

**Optical accessories CS / CSmicro / CSmicro 2W**

2970277	TM-CF-CS	Ancillary CF lens for CS models
2970278	TM-PW-CS	Protective window for CS models

**Calibration CS / CSmicro / CSmicro 2W**

2970288	TM-CERT-CS	Certificate of calibration
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**Mechanical accessories CX**

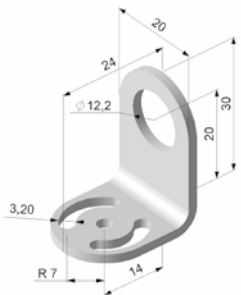
Art. No.	Model	Description
2970307	TM-AP-CX	Air purge collar, aluminum (anodized)
2970321	TM-FB-CX	Mounting bracket, adjustable in one axis, stainless steel
2970322	TM-AB-CX	Mounting bracket, adjustable, in 2 axes, stainless steel
2970311	TM-USBK-CX	USB kit: USB programming adapter, software CompactConnect

**Optical accessories CX**

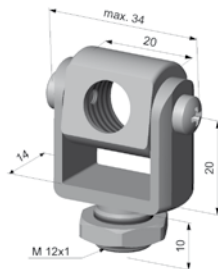
2970302	TM-CF-CX	Ancillary CF lens for CX models
2970303	TM-PW-CX	Protective window for CX models

**Calibration CX**

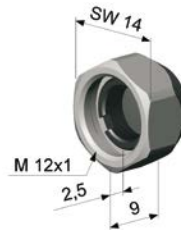
2970323	TM-CERT-CX	Certificate of calibration
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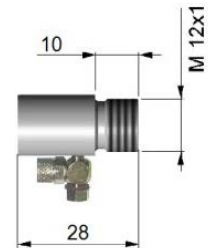
TM-FB-CS Mounting bracket, fixed



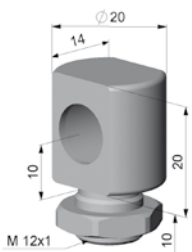
TM-MG-CS Mounting fork with M12x1 thread, adjustable in two axes



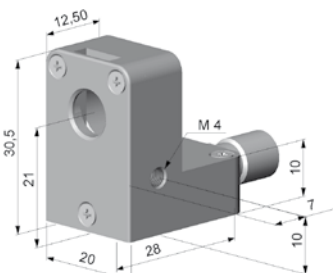
TM-CF-CS Ancillary CF lens (only for LT models)



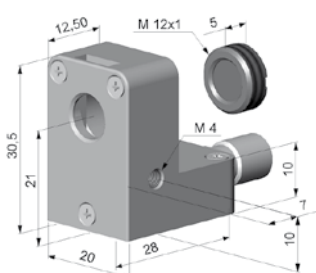
TM-AP-CS Air purge collar for 10:1 sensors



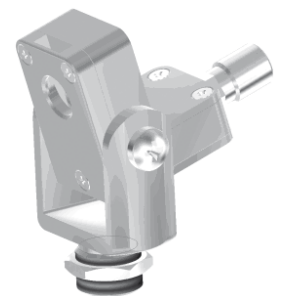
TM-MB-CS Mounting bolts with M12x1 thread adjustable in one axis



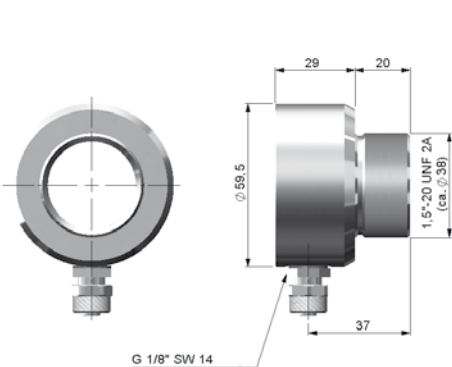
TM-APL-CS Air purge collar, laminar



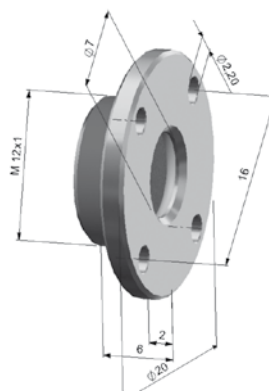
TM-APLCF-CS Air purge collar, laminar with integrated ancillary CF lens



TM-APL-CS Air purge collar, laminar  
TM-MG-CS mounting fork



TM-AP-CX Air purge collar for CX sensors



TM-CF-CX Ancillary CF lens, TM-PW-CX protective window



TM-RAM-CS Right angle mirror

## Further IR temperature measurement devices from Micro-Epsilon



**thermoIMAGER TIM**  
Compact USB thermal imaging cameras  
for precise thermography



**thermoMETER CTVideo/CSVVideo**  
IR temperature sensors with crosshair laser  
sighting and video output



**thermoMETER Handheld**  
Innovative handheld pyrometer with laser  
sighting for inspection and maintenance