



More Precision

thermoMETER // Non-contact infrared temperature sensors





thermoMETER CT

Non-contact IR temperature sensor for common applications

- Measuring range from -50 °C to 975 °C
- One of the smallest 22:1 infrared sensors worldwide
- Up to 180 °C ambient temperature without cooling
- Separate controller with programming keys and backlit display
- Selectable and scalable analog output, optional digital interfaces
- Exchangeable sensors
- Best price sensor

Optical specifications thermoMETER CT

□ = smallest spot size / focal point (mm)

Standard Focus

SF02	2:1	5	53.8	102.5	151.3	200	251.3	302.5	353.8	405						
	distance in mm	0	100	200	300	400	500	600	700	800						
SF15	15:1	6.5	10.3	14.1	17.9	21.7	25.4	30.9	37.1	43.3	49.5	55.8	62	68.2	74.4	80.7
	distance in mm	0	75	150	225	300	375	450	525	600	675	750	825	900	975	1050
SF22	22:1	6.5	10.9	15.2	19.5	23.9	28.3	32.6	37	41.3	45.7	50				
	distance in mm	0	110	220	330	440	550	660	770	880	990	1100				

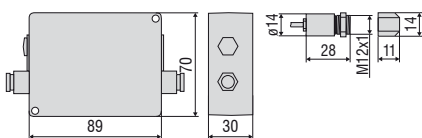
Close Focus (with optionally available CF lens)

CF02	2:1	5	3.9	2.8	2.5	4.8	6.4	8	11.3	14.6						
	distance in mm	0	10	20	23	30	35	40	50	60						
CF15	15:1	6.5	3.7	0.8	4.4	8.1	11.8	15.4	19.1	22.7						
CF22	22:1	7	3.8	0.6	4.4	8.2	12	15.8	19.6	23.4						
	distance in mm	0	5	10	15	20	25	30	35	40						

Model	CT-SF02-C3	CT-SF15-C3	CT-SF22-C3
Optical resolution	2:1	15:1	22:1
Temperature range ¹⁾	-50 °C to 600 °C	-50 °C to 600 °C	-50 °C to 975 °C
Spectral range	8 to 14 μm		
System accuracy ²⁾	±1 % or ±1 °C		
Repeatability ²⁾	±0.5 % or ±0.5 °C		
Temperature resolution	0.1 °C		
Response time	150 ms (95 %)		
Emissivity/gain ¹⁾	0.100 to 1.100		
Transmissivity/gain ¹⁾	0.100 to 1.100		
Signal processing ¹⁾	peak hold, valley hold, average; extended hold function with threshold and hysteresis		
Certificate of calibration	optional		
Outputs/analog	channel 1	0/4 to 20 mA, 0 to 5/10 V, thermocouple J, K	
	channel 2	sensor temperature (-20 to 180 °C as 0 to 5 V or 0 to 10 V), alarm output	
Outputs/analog	optional	relays: 2 x 60 VDC/42 VAC; 0.4 A; electrically isolated	
Outputs/digital	optional	USB, RS232, RS485, Modbus RTU, Profibus DP, Ethernet	
Output impedances	current output	mA max. 500 Ω (with 8 to 36 VDC)	
	voltage output	min. 100 kΩ load impedance, thermocouple 20 Ω	
Inputs	programmable functional inputs for external emissivity adjustment ambient temperature compensation, trigger (reset of hold functions)		
Cable length	1 m, 3 m (standard), 8 m, 15 m		
Power supply	8 to 36 VDC; max. 100 mA		
Protection class	IP65 (NEMA-4)		
Ambient temperature	sensor	-20 °C to 130 °C	-20 °C to 180 °C
	controller	0 °C to 85 °C	
Storage temperature	sensor	-40 °C to 130 °C	-40 °C to 180 °C
	controller	-40 °C to 85 °C	
Relative humidity	10 to 95 %, non-condensing		
Vibration	sensor	IEC 68-2-6: 3 G, 11 to 200 Hz, any axis	
Shock	sensor	IEC 68-2-27: 50 G, 11 ms, any axis	
Weight	sensor: 40 g; controller: 420 g		

¹⁾ adjustable via programming keys or software

²⁾ ambient temperature 23 ±5 °C; whichever is greater



Product identification

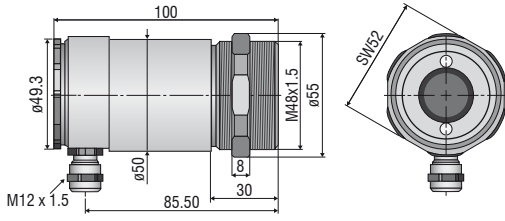
CT-	SF02-	C3
Cable length [1 m / 3 m (standard) / 8 m / 15 m]		
Focus [SF02 / SF15 / SF22]		
thermoMETER CT		

Accessories page 20 - 23

- Ancillary CF lens
- Protective window
- Mounting bracket / mounting bolt
- Air purge collar
- Right angle mirror
- Rail mount adapter for controller
- Massive housing
- Protective tube
- Laser sighting aid
- Digital-interface kits
- Accessories kit for use in Ex areas
- Certificate of calibration

CSLaser

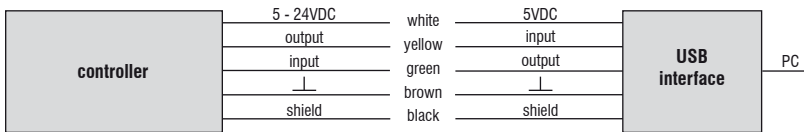
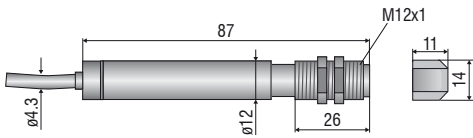
sensor



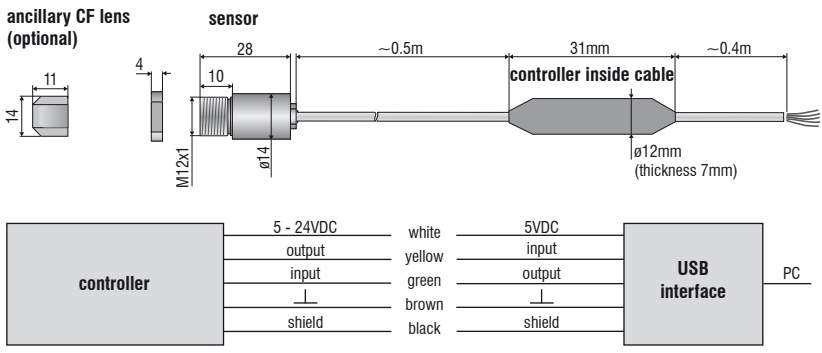
CS

sensor with integrated controller

ancillary CF lens (optional)



CSmicro / CSmicro 2W



Infrared thermal imagers from Micro-Epsilon



thermoIMAGER TIM Compact thermal imaging cameras for industrial temperature monitoring

- Temperature range from -20 °C to 1900 °C
- Ideal for OEM
- Real-time thermography using license-free software
- Protective housing for harsh environments
- Special variants for the glass, metal and plastics industries