



thermoMETER CT

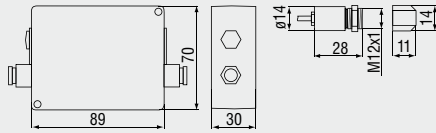
This state of the art non contact infrared temperature sensor sets the industry standard for common applications with a spectral range of 8...14 μ m. It offers the most compact sensing head packaging in conjunction with a sophisticated fully instrumented controller.

- Measuring range from -50 to 975°C
- World's smallest sensor with 22:1 precision optics
- Rugged design, operates in an environment up to 180°C without cooling
- Analogue and digital output, thermocouple J/K emulation and serial interface
- 150ms response time
- Fully programmable instrument for enhanced signal processing and I/O control
- Separate controller with easy accessible programming keys and multi colour LCD backlit display
- Best price / performance value

Optical specifications thermoMETER CT

□ = smallest spot size (mm)

Standard Focus optics										
SF02	2:1	5	50	100	150	200	250	300	350	400
SF15	15:1	7	8	13	20	27	33	40	47	53
SF22	22:1	7	7	9	14	18	23	27	32	36
distance in mm		0	100	200	300	400	500	600	700	800
Close Focus optics (CF lense optional available)										
CF02	2:1	7	5.6	4.3	3	2.5	2.4	3	4.7	6.3
CF15	15:1	7	5	0.8	5	11	16	21	27	32
CF22	22:1	7	4	0.6	4	8	12	16	20	24
distance in mm		0	5	10	15	20	25	30	35	40



Product identification

CT - SF02 - C3

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

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 14μm		
System accuracy ²	±1% or ±1°C		
Repeatability ²	±0.5% or ±0.5°C		
Temperature resolution	±0.1°C		
Response time	150ms (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/analogue	channel 1 channel 2 optional	0/4 to 20mA, 0 to 5/10V, thermocouple J, K sensor temperature (-20 to 180°C as 0 to 5V or 0 to 10V), alarm output relay: 2 x 60VDC/ 42VACeff; 0.4A; optically isolated	
Outputs/digital	optional	USB, RS232, RS485, CAN, Profibus DP, Ethernet	
Output impedances	current output voltage output	mA max. 500Ω (with 8 to 36VDC) mV min. 100kΩ load impedance thermocouple 20Ω	
Inputs		programmable functional inputs for external emissivity adjustment, ambient temperature compensation, trigger (reset of hold functions)	
Cable length		1m , 3m (standard), 8m, 15m	
Power supply		8 to 36VDC; max. 100mA	
Environmental rating		IP 65 (NEMA-4)	
Ambient temperature	sensor controller	-20°C to 130°C	-20°C to 180°C 0 °C to 85°C
Storage temperature	sensor controller	-40°C to 130°C	-40°C to 180°C -40°C to 85°C
Relative humidity		10 - 95%, non condensing	
Vibration	sensor	IEC 68-2-6: 3 G, 11 to 200Hz, any axis	
Shock	sensor	IEC 68-2-27: 50 G, 11ms, any axis	
Weight		sensor: 40g; controller: 420g	

¹ adjustable via controller or software

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

Accessories page 42 - 45

- ▶ CF lense
- ▶ Protective window
- ▶ Mounting bracket / Mounting bolt
- ▶ Air purge collar
- ▶ Right angle mirror
- ▶ Rail mount adapter for controller
- ▶ Massive housing
- ▶ Protective tube
- ▶ Laser sighting tool
- ▶ Digital-Interface kit
- ▶ Relay output module
- ▶ Accessory-Kit for use of the CT in hazardous locations
- ▶ Software CompactConnect
- ▶ Certificate of calibration