



thermoMETER CTlaserFAST

Innovative precision high speed infrared temperature sensor marking the actual spot size on your measurement target at any distance with short response time for extreme fast response.

- High speed temperature sensor with precise laser aiming
- Measuring range from -50°C to 975°C
- 9ms response time for fast moving objects or events
- Extreme small measurement spot down to 1.4mm
- Real mapping of the actual spot size, with automatic laser protection
- Precision optics (50:1) with different models for a specific focus point
- Up to 85°C ambient temperature without cooling
- Fully programmable instrument for enhanced signal processing and I/O control
- Separate controller with easy accessible programming keys and multi colour LCD backlit display

Optical specifications thermoMETER CTlaserFAST

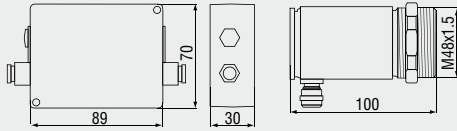
□ = smallest spot size (mm)

Standard optics																
SF50 optics 50:1	20	20.5	21	21.5	22	22.5	23	23.5	24	29.5	35	48	57	68		
distance in mm	0	150	300	450	600	750	900	1050	1200	1350	1500	1800	2100	2400		
Close Focus optics																
CF1 optics 50:1	20	10	8.5	1.4	11	26	41	57	72	60	103	118	133	164	194	225
CF2 optics 50:1	20	15.5	15	12	9	3	11	19	26	33	42	49	57	72	88	103
CF3 optics 50:1	20	16.5	16	14	12	8	4	10	16	21	28	33	40	52	64	76
CF4 optics 50:1	20	19.5	19	18.4	18	16.5	15	14	13	11.5	10	9	12	19	25	32
distance in mm	0	40	50	70	100	150	200	250	300	350	400	450	500	600	700	800

Product identification

CTLF - SF50 - C3

Cable length [3m Standard / 8m / 15m]
 Focus [SF50 / CF1 / CF2 / CF3 / CF4]
 thermoMETER CTLaserFAST



Model	CTLF-SF50-C3
Optical resolution	50:1
Temperature range ¹	-50°C to 975°C
Spectral range	8 to 14μm
System accuracy ^{2,3}	±1.5% or ±1.5°C
Repeatability ²	±1% or ±1°C
Temperature resolution	0.5°C
Response time (90% signal)	9ms
Emissivity/gain ¹	0.100 to 1.100
Transmissivity/gain ¹	0.100 to 1.000
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
Alarm output		open - collector (24V/ 50mA)
Outputs/digital	optional	USB, RS232, RS485, CAN, Profibus DP, Ethernet
Output impedances	current output voltage output	mA max. 500Ω (with 5 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		3m (standard), 8m, 15m
Power supply		8 to 36VDC; max. 160mA
Laser		class II (635nm), 1mW, ON/OFF via controller or software

Environmental rating		IP 65 (NEMA-4)
Ambient temperature		sensor: -20°C to 85°C (50°C if Laser ON) controller: 0°C to 85°C
Storage temperature		sensor: -40°C to 85°C controller: -40°C to 85°C
Relative humidity		10 to 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: 600g; controller: 420g

¹ adjustable via controller or software² ± ambient temperature: 23 ±5°C; whichever is greater³ temperature of the object >0°C

Accessories page 22 - 23

- ▶ Mounting bracket
- ▶ Air purge collar
- ▶ Rail mount adapter for controller
- ▶ Water cooled housing
- ▶ Interface kit
- ▶ Software CompactConnect
- ▶ Certificate of calibration



LASER RADIATION
 DO NOT STARE IN THE BEAM
 CLASS 2 LASER
 EN60825-1:2002
 P≤1mW; λ=630-650nm