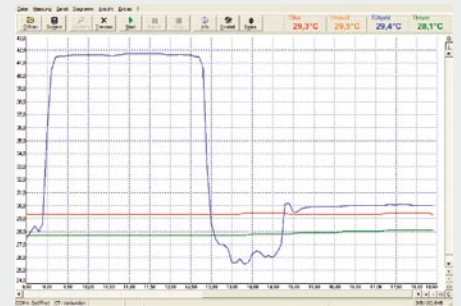




thermoMETER CTlaser

*Innovative precision infrared temperature sensor marking
the actual spot size on your measurement target at any distance*

- ➔ Measuring range from -50°C to 975°C
- ➔ Extreme small measurement spot down to 0.9mm
- ➔ Real mapping of the actual spot size, with automatic laser protection
- ➔ Precision optics (75:1) 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 color LCD backlit display

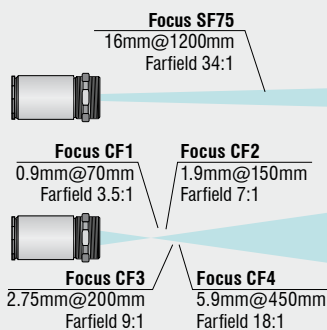


Software CompactConnect

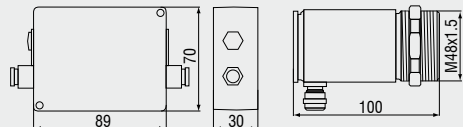
- Display, graphic charting and recording of temperature readings
- Easy system configuration and sensor calibration
- Sophisticated signal processing features
- Programming of input and output channels

Optical specifications thermoMETER CTlaser

□ = smallest spot size (mm)



Standard optics																	
SF75 optics 75:1	20	19.5	19	18.5	18	17.5	17	16.5	16	20.5	25	34	43	52			
distance in mm	0	150	300	450	600	750	900	1050	1200	1350	1500	1800	2100	2400			
Close Focus optics																	
CF1 optics 75:1	20	9	5	0.9	10	25	40	55	70	85	100	115	130	160	190	220	
CF2 optics 75:1	20	16	14	11	8	1.9	9	16.5	24	31	38	45.5	53	68	82	97	
CF3 optics 75:1	20	17	16	14	11	7	2.75	8.5	14	19.5	25.5	31	37	48	60	71	
CF4 optics 75:1	20	19	18.5	18	17	15.5	14	12.5	11	9	7.5	5.9	9	15	20	26	
distance in mm	0	40	50	70	100	150	200	250	300	350	400	450	500	600	700	800	



Product identification

CTL - SF75 - C3

Fiber cable length [3 m Standard / 8 m / 15 m]
 Focus [SF75 / CF1 / CF2 / CF3 / CF4]
 thermoMETER CTLaser

Model		CTL-SF75-C3
Optical resolution		75:1
Temperature range ¹		-50°C to 975°C
Spectral range		8 to 14 μm
System accuracy ^{2,3}		<1% or <1°C
Repeatability ²		<0.5% or <0.5°C
Temperature resolution		0.1°C
Response time (90% signal)		120ms
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/analog	channel 1 channel 2 optional	0/4 to 20mA, 0 to 5/10 V, thermocouple J, K sensor temperature (-40 to 85°C as 0 to 5V or 0 to 10V), alarm output relay: 2 x 60VDC/ 42VAC _{eff} ; 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 software

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

³ 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