

thermoMETER CT



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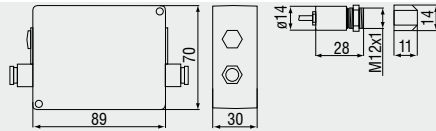
This state of the art non contact infrared temperature sensor sets the industry standard for common applications with a spectral range of 8...14µm. It offers the most compact sensing head packaging in conjunction with a sophisticated fully instrumented controller.

- 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	0/4 to 20mA, 0 to 5/10V, thermocouple J, K		
	channel 2	sensor temperature (-20 to 180°C as 0 to 5V or 0 to 10V), alarm output		
	optional	relay: 2 x 60VDC/ 42VACeff; 0.4A; optically isolated		
Outputs/digital	optional	USB, RS232, RS485, CAN, Profibus DP, Ethernet		
Output impedances	current output	mA max. 500Ω (with 8 to 36VDC)		
	voltage output	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	-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 - 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

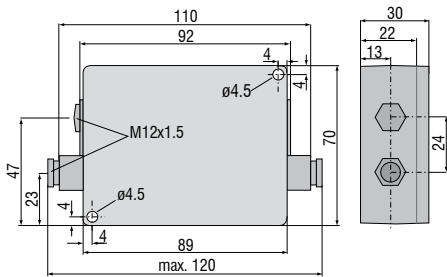
² ± ambient temperature 23 ±5°C; whichever is greater

Accessories page 44 - 47

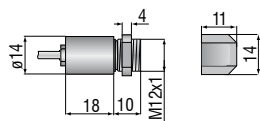
- ▶ CF lense
- ▶ Protective window
- ▶ Mounting bracket / Mounting bolt
- ▶ Air purge collar
- ▶ Right angle mirror
- ▶ Rail mount adapter for controller
- ▶ Massive housing
- ▶ Protective tube
- ▶ Laser sighting tool
- ▶ Digital-Interface kit
- ▶ Relay output module
- ▶ Accessory-Kit for use of the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

Dimensions

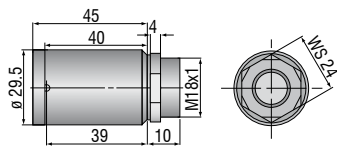
Controller



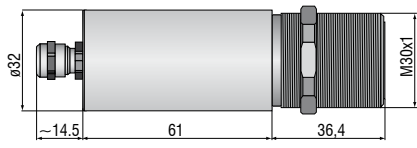
CT / CTfast / CTM1/M2/M3



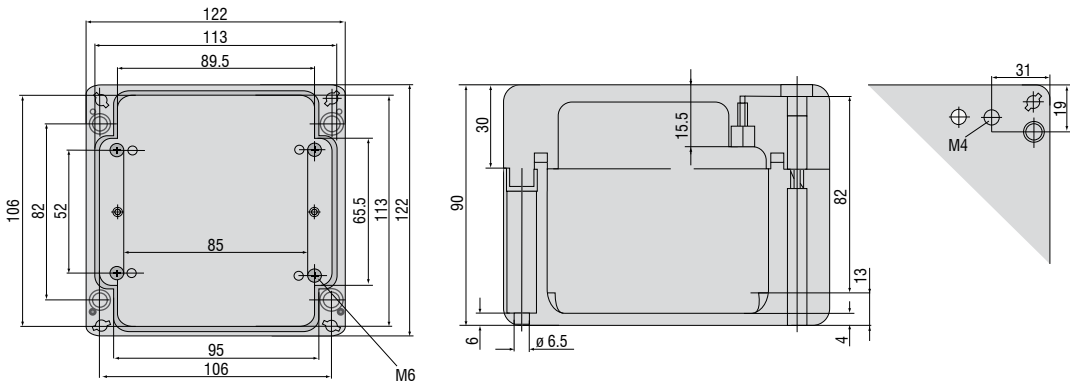
CThot / CTP7



CTM3-XL



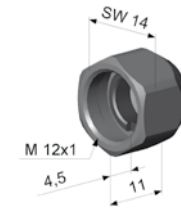
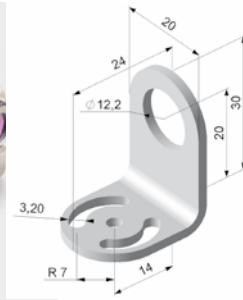
CTex



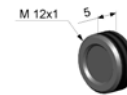
Accessories CT / CTfast / CThot / CTM1/M2 / CTM3 / P7 / CTex



TM-FB-CT Mounting bracket, fixed



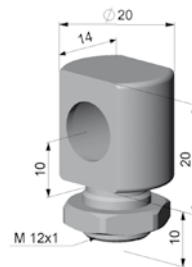
TM-CF-CT Close Focus Lens (SF sensors only)



TM-CFAG-CT CF lens with external thread resp.
TM-PWAG-CT Protective window with external thread



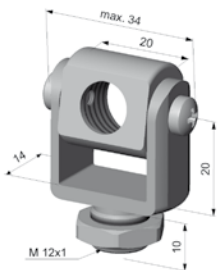
TM-AB-CT Mounting gimble, adjustable in two axes



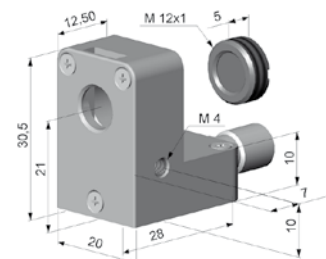
TM-MB-CT Mounting bolt with
M12x1 thread adjustable



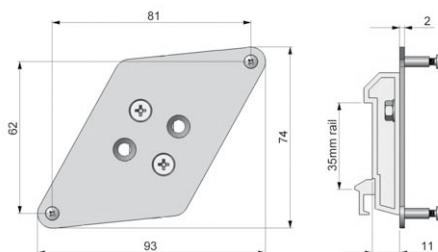
TM-APL-CT Laminar air purge collar and
TM-MG-CT Mounting fork



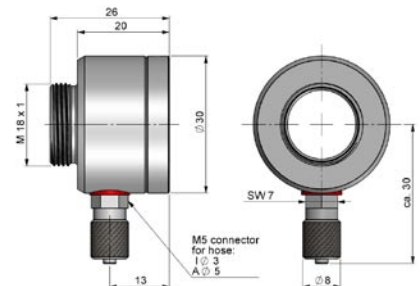
TM-MG-CT Mounting fork with M 12x1 thread adjustable in two axes



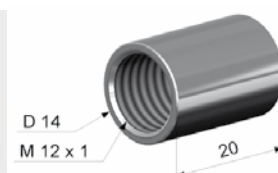
TM-APLCF-CT
CF lense/ protective window - integral
option for air purge collar



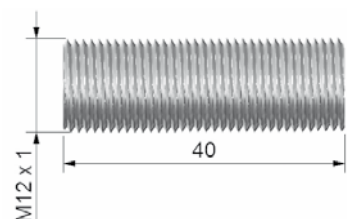
TM-RAIL-CT Rail mount adapter for controller



TM-AP-CT R Air purge collar



TM-PA-CT Pipe adapter for sighting tube



TM-ST40-CT Sighting tube

