Economic IR- temperature sensors for measurement of plastics

thermoMETER CTP7



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This state of the art non contact infrared temperature sensor operates with a wavelength of 7.9µm. This special spectral range allows the IR temperature sensor to measure accurate against thin plastic film materials such as PET, PU, PTFE and PA.

- → Measuring range from 0° to 500°C
- → Accurate temperature measurement of thin plastic film materials
- → Up to 85°C ambient temperature without cooling
- → 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

Optical specifications thermoMETER CTP7

Standard Focus optics										
SF10	10:1	7	10	20	30	40	50	60	70	80
distance in mm		0	100	200	300	400	500	600	700	800

36





. Cable length [3m (standard) / 8m / 15m] Focus _ Spectral range [7.9µm] _ thermoMETER CTP7

Model		CTP-7SF10-C3				
Optical resolution		10:1				
Temperature range 1		0 to 500°C				
Spectral range		7.9µm				
System accuracy ²		\pm 1% or \pm 1.5°C				
Repeatability ²		±0.5% or ±0.5°C				
Temperature resolution		±0.5°C				
Response time		150ms				
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				
	channel 1	0/4 to 20mA, 0 to 5/10V, thermocouple J, K				
Outputs/analogue	channel 2	sensor temperature (-20 to 180°C as 0 to 5V or 0 to 10V), alarm output				
	optional	relay: 2 x 60VDC/ 42VAC _{eff} ; 0.4A; optically isolated				
Outputs/digital	optional	USB, RS232, RS485, CAN, Profibus DP				
	current output	mA max. 500Ω (8 to 36VDC)				
Output impedances	voltage output	mV min. 100k Ω 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. 100mA				
Environmental rating						
Ambient temperature		sensor: -20°C to 85°C 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: 200g; controller: 420g				

 1 adjustable via programming keys or software 2 \pm ambient temperature: 23±5°C; whichever is greater