TIF7620·TIF7612·TIF7610

IR Thermometer PRO

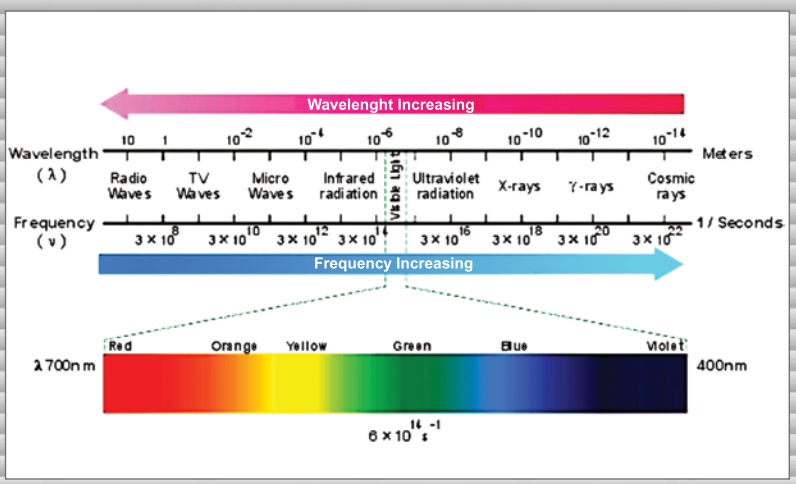
TIF7620

TIF7612

TIF7610

Infrared Overview:

Infrared is the name given to a range of electromagnetic wavelengths longer than visible light but shorter than microwaves (1-100 microns). See accompanying figure for details. Infrared thermometers do everything from verifying the temperature in your AC system in the car or home to helping electricians to find an overcharge in electrical systems. Recent advances in optics make this technology more accurate and cost-effective.



How Infrared Thermometer works

To measure a surface temperature, the user aims the IR Thermometer at the target, presses a button, and reads the temperature display. The device has an optical lens that collects the radiated infrared energy from the object and focuses it on the detector. The detector converts the energy into an electrical signal that's amplified and displayed as a temperature reading. An infrared thermometer measures temperature by sensing the magnitude of radiated energy at infrared frequencies. Using this data and the actual temperature of the detector, the thermometer calculates the temperature of the surface that emitted the energy.

Features

- SoC (System-on-a-Chip) Technology – Complete IR design incorporated on a single chip, creating compact and lightweight design.
- Innovative optical lens – high accuracy measurements over wide temperature ranges. 10:1, 12:1 or 20:1 distance to spot (D:S) ratios available.
- Laser pointer – Simply point at desired target and press the trigger for temperature reading.
- External temperature port on the TIF7612 & TIF7620 can extend the temperature up to 1999°F.
- High and low pass filters with audible alarms for out of range measurements (TIF7612 & TIF7620 only).
- Temperature modes – Maximum (MAX), Minimum (MIN), Difference (DIF), & Average (AVG) temperature modes are available in TIF7612 and TIF7620. TIF7610 has maximum temperature only.
- Visual low battery indicators; requires two "AAA" batteries.

Specification	TIF7610	TIF7612	TIF7620
Measurement Range	-76 to +932°F (-60 to +500°C)	-76 to +932°F (-60 to +500°C)	-76 to +1400°F (-60 to +760°C)
Thermocouple Measurement Range	N/A	83.2 to +1999°F (-64 to +1400°C)	
Accuracy: Tobj=59°-95°F (15-35°C) Tamb=77°F (25°C)	±1.8°F (1.0°C)		
Accuracy: Tobj= -27-932°F (-33-500°C Tamb= 73°F ±5°F (23 ± 3°C)	±2% of reading or 4°F (2°C) whichever is greater		
Thermocouple Accuracy	N/A	±1% of reading or 1.8°F (1°C) whichever is greater (Test under Tamb=73±11°F [23+6°C])	
Emissivity	0.95 fixed	Adjustable	
Resolution: 14.2° F~199.9° F (-9.9~199.9°C)	0.1°F/0.1°C (1° below 9.9 and above 199.9)		
Spectral Response	5 ~ 14µm	8 ~ 14µm	
Response Time (90%)	.5 sec		
Distance:Sp	10:1	12:1	20:1
Dimensions	6.9 x 1.5 x 2.8 in - 175.2 x 39.0 x 71.9 mm		
Weight	0.30lbs including batteries (AAA*2pcs) - 179 grams including batteries (AAA*2pcs)		

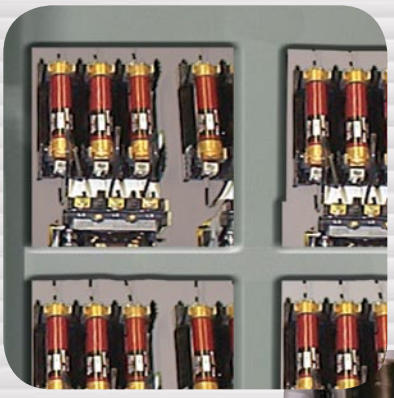
Typical Applications

Electrical

Check temperature of high voltage equipment and transformers from a safe distance
Detect heating of problem fuses, wires, insulators, connectors, splices, switches, neutrals Overload motors due to possible Harmonic currents

HVAC/R

Furnace exteriors, steam traps, heat exchangers
Take suction line temperatures for SUPERHEAT
Ambient temperature
Outlet air
Inlet air
Refrigeration equipment, freezers and display cases AC Condenser Max temp look for blockages
Chiller input/output ΔT
Average over condenser coil for energy audit



HVAC/R

Industrial

Automotive

Industrial

Rotating motors and other machinery
Motor starter relay contacts & overloads
Bearings
Energy surveys
Boiler operations and steam systems
Performance verification of machinery and equipment
Food processing

Automotive

Detect overheating electrical components, connectors and wiring harness
Pinpoint radiator core restrictions
Temperature sensors
Catalytic converters
Exhaust systems
Tire Tread temperature
Battery temperature
Oil Temperature