

TFI 500 Non-contact Thermometers

Non-contact digital ir thermometers for process temperature measurements



- Infrared for non-contact surface temperature measurement
- Laser pointer
- Alarm when Min/Max Limit is exceeded
- Factory calibration certificate

Description

The TFI 500 non-contact thermometers are suited to a multitude of measurement and control tasks in industry, trade and crafts. The units are simple and efficient to use all you have to do is aim the thermometer and press the measurement key. The instrument's optics record the emitted, reflected, and absorbed heat radiation which is bundled and focused on a detector. The thermometer's electronics change this information into a temperature value which appears on the display. The built in laser can be used to ensure that you are targeting the correct measurement point.

Temperature values on the thermometer can be switched between Celsius and Fahrenheit. The temperature measurement can also be locked to display for 60 minutes or as long as lock mode button is depressed.

Emissivity

Inaccurate readings will result from using the non-contact thermometers to measure shiny or polished metal surfaces like stainless steel or aluminum. To compensate, cover the surface to be measured with masking tape or flat black paint. When measuring a grill, for example, aim the unit at a portion of the grill that has been blackened by the high temperatures. The instrument cannot measure through transparent surfaces such as glass or plastic. It will measure the surface temperature of the transparent surface instead. Steam, dust, smoke, etc., can prevent accurate measurement by obstructing the thermometer's optics.

Specifications

Measurement range: -76 to 1400°F (-60 to +760°C)

Accuracy:

- ±2°F (±1°C) in environmental temperature of 77°F (25°C) and an object temperature of 59 to 95 °F (+15 to +35°C)
- ±2% of the measured value or ±3.5°F (±2°C) (whichever is higher) over the entire measurement range with an environmental temperature of 70 to 77°F (20 to 26°C)

Resolution: 0.1°F (0.1°C) at 14.2 to 391.8°F (-9.9 to 199.9°C), otherwise 2°F (1°C)

Reaction time (90%): approx. 1 second

Emission factor: 0.1 to 1.0

Ratio of distance to meas. spot: 30:1

General

Battery life: typically 140 hours (with laser, LED-light, and backlight of display disabled)

Battery: Type AAA, 1.5V

Working temperature: 32 to + 122°F (0 to + 50°C)

Storage temperature: -4.0 to + 252°F (-20 to + 65°C) (store without battery)

Housing material: ABS

IP Rating: IP 20

Certificate: 3 point factory calibration, CE

Dimensions: approx. 6.7x4.9x2 in (170x125x50mm)

Weight incl. battery: approx. 6.6 oz. (204g)

Options and Accessories

TFI 500 - Non-contact Thermometer



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