

LR500 THERMO HUNTER



INFRARED THERMOMETRY

you name one, we have one

THERMOGRAPHY

the language of temperature through colour

0 Long Range Applications

LR300, LR500, and LR1500 are designed for remote long range temperature measurement of small target. These infrared thermometers are widely used in electrical industry for measuring the temperature of transmission line and substation's equipment junction. Its may also be used in other industries for long-distance surface temperature measurement.

15m || 300:1



LR300 THERMO RANGER Medium-Long Range Infrared Thermometer

Measurement range	: -20 ~ 300°C (-4 ~ 572°F)
Minimum detectable target	: ø30mm
Measuring distance	: 5 ~ 15m
Distance to spot ratio	: 300 : 1
Accuracy	: ±5°C for ≤ 100°C, ±5% for > 100°C
Resolution	: 1°
Emissivity	: 0.40 ~ 1.00 (adjustable)
Spectral response	: 8 ~ 14μm
Laser pointer	: single, class II, up to 1mW
Power	: 2 x 9V battery
Size	: 245 x 240 x 60mm
Weight	: 1000g
Standard accessories	: hard case, instruction manual, warranty card, certificate of product conformance

35m || 500:1

Measurement range	: -10 ~ 300°C (14 ~ 572°F)
Minimum detectable target	: ø35mm
Measuring distance	: 5 ~ 35m
Distance to spot ratio	: 500 : 1
Accuracy	: ±5°C (≤100°C), ±5% (>100°C)
Resolution	: 1°C
Emissivity	: 0.40 ~ 1.00
Spectral response	: 8 ~ 14μm
Power	: 2 x 9V battery or lithium battery
Environment temperature	: 0 ~ 50°C
Size	: 500 × 175 × 70mm
Weight	: 1700g
Standard accessories	: screw driver, carrying case, hard case, instruction manual, warranty card, certificate of product conformance

LR500 THERMO HUNTER Long Range Infrared Thermometer



80m || 1500:1

LR1500 THERMO REMOTE Extra Long Range Infrared Thermometer

Measurement range	: 0 ~ 300°C (32 ~ 572°F)
Min detectable target	: ø40mm
Measuring distance	: 10 ~ 80m
Measuring angle	: azimuth 360°, angle of pitch -30 ~ 90°
Distance to spot ratio	: 1500 : 1
Accuracy	: ≤5%
Resolution	: 1°
Emissivity	: 0.41 ~ 1.00 (adjustable)
Spectral response	: 8 ~ 14μm
Output	: digital half-duplex RS485
Power	: 6 x 1.5V (AA battery) / 12V (external)
Size	: 230 x 135 x 175mm
Weight	: 2700g
Standard accessories	: screw driver, transport case, instruction manual, warranty card, certificate of product conformance
Optional accessories	: analog (4 ~ 20mA), Leica professional tripod



General Purpose IR Thermometer

IR50i Best Selling IR Thermometer (supports various K type thermocouple)



- Measurement range : -60 ~ 500°C (-76 ~ 932°F)
- Up to maximum : 1.5m
- Distance to spot ratio: 12:1
- Accuracy : ±1°C for 15 ~ 35°C,
±2% of reading whichever is greater
- Resolution : 0.1°
- Emissivity : 0.10 ~ 1.00 (adjustable)
- Response time : 1 second
- Spectral response : 8 ~ 14µm
- Laser pointer : Single, class II, up to 1mW
- Thermocouple : K type
Range : -64 ~ 1400°C (-83.2 ~ 2552°F)
Accuracy : ±1% of reading or ±1°C whichever is greater
- Power : 2 x 1.5V (AAA battery)
- Size : 175 x 39 x 72mm
- Weight : 179g
- Standard accessories : batteries, instruction manual, warranty card, certificate of product conformance
- Optional accessories : thermocouple probe (penetration / air / surface), soft pouch, certificate of calibration

- contact & non-contact thermometry
- supports various K type thermocouple

IR60 Low Cost General Purpose IR Thermometer



- Measurement range : -50 ~ 600°C (-58 ~ 1112°F)
- Up to maximum : 1m
- Distance to spot ratio: 8:1
- Accuracy : ±1°C for 10 ~ 100°C, ±2% of reading for other
- Resolution : 0.1°
- Emissivity : 0.10 ~ 1.00 (adjustable)
- Response time : <1 second
- Spectral response : 8 ~ 14µm
- Laser pointer : Single, class II, up to 1mW
- Power : 9V battery
- Size : 195 x 44 x 95mm
- Weight : 200g
- Standard accessories : battery, soft pouch, instruction manual, warranty card, certificate of product conformance

IR80 Premium Class IR Thermometer (supports various K type thermocouple)



- Measurement range : -60 ~ 760°C (-76 ~ 1400°F)
- Up to maximum : 3m
- Distance to spot ratio: 30:1
- Accuracy : ±1°C for 15 ~ 35°C,
±2% of reading or ±2° whichever is greater
- Resolution : 0.1°
- Emissivity : 0.10 ~ 1.00 (adjustable)
- Response time : 1 second
- Spectral response : 8 ~ 14µm
- Laser pointer : Single, class II, up to 1mW
- Thermocouple : K type
Range : -64 ~ 1400°C (-83.2 ~ 2552°F)
Accuracy : ±1% of reading
or ±1°C whichever is greater
- Power : 2 x 1.5V (AAA battery)
- Size : 146 x 132.7 x 48.8mm
- Weight : 221.8g
- Standard accessories : batteries, instruction manual, warranty card, certificate of product conformance
- Optional accessories : thermocouple probe (penetration / air / surface), soft pouch, hard case, certificate of calibration

- contact & non-contact thermometry
- better distance ratio than IR50i
- more stable & consistent reading (glass lens)

IR80e

Dual Beam Laser

Premium Class IR Thermometer

(supports various K type thermocouple)

Measurement range : -60 ~ 760°C (-76 ~ 1400°F)
 Up to maximum : 3m
 Distance to spot ratio: 30:1
 Accuracy : ±2% of reading
 or ±2° whichever is greater for 0 ~ 760°C
 ±(2+0.05/°C)°C for -60 ~ 0°C
 Resolution : 0.1° at -83.2 ~ 999.9 (°C/°F), otherwise 1°
 Emissivity : 0.10 ~ 1.00 (adjustable)
 Response time : 1 second
 Spectral response : 8 ~ 14µm
 Laser pointer : Dual, class II, up to 1mW
 Thermocouple : K type
 Range : -64 ~ 1400°C (-83.2 ~ 2552°F)
 Accuracy : ±1% of reading
 or ±1°C whichever is greater
 Power : 2 x 1.5V (AAA battery)
 Size : 119.2 x 47.5 x 171.8mm
 Weight : 255.7g (including batteries)
 Standard accessories : batteries, instruction manual, warranty card,
 certificate of product conformance
 Optional accessories : certificate of calibration



- two laser dots on target indicates area of measurement & changes against distance
- contact & non-contact thermometry
- supports various K type thermocouple

IR100e Professional High Accuracy IR Thermometer

Measurement range : -25 ~ 1000°C (-13 ~ 1832°F)
 Up to maximum : 6m
 Distance to spot ratio: 50:1
 Accuracy : ±0.5% of reading, ±1°C whichever is greater
 Resolution : 0.5°
 Emissivity : 0.10 ~ 1.00 (adjustable)
 Response time : <0.5 second
 Spectral response : 7 ~ 14µm
 Laser pointer : Single, class II, up to 1mW
 Power : 9V battery
 Size : 165 x 105 x 30mm
 Weight : 200g
 Standard accessories : battery, hard case, instruction manual,
 warranty card, certificate of product conformance
 Optional accessories : certificate of calibration



- world most accurate non-contact IR thermometer
- better distance ratio up to effective 6m / more
- very stable & consistent measurement (glass lens)

IR150

Dual Beam Laser Infrared Thermometer

(supports various K type thermocouple)

Measurement range : -60 ~ 1500°C (-76 ~ 2732°F)
 Up to maximum : 5m
 Distance to spot ratio: 50:1
 Accuracy : ±1°C for 15 ~ 35°C,
 ±2% of reading or ±2° whichever is greater
 Resolution : 0.1°
 Emissivity : 0.10 ~ 1.00 (adjustable)
 Response time : 1 second
 Spectral response : 8 ~ 14µm
 Laser pointer : Dual, class II, up to 1mW
 Thermocouple : K type
 Range : -64 ~ 1400°C (-83.2 ~ 2552°F)
 Accuracy : ±1% of reading / ±1°C whichever is greater
 Power : 2 x 1.5V (AAA battery)
 Size : 203 x 47 x 197mm
 Weight : 386.1g
 Standard accessories : batteries, hard case, instruction manual, warranty card,
 certificate of product conformance
 Optional accessories : thermocouple probe (penetration / air / surface),
 soft pouch, certificate of calibration



- two laser dots on target indicates area of measurement & changes against distance
- contact & non-contact thermometry
- supports various K type thermocouple

IR180ML

Medium Range Dual Beam Laser Infrared Thermometer with Memory (supports various K type thermocouple)

Measurement range : 100 ~ 1800°C (212 ~ 3272°F)
 Up to maximum : 7m
 Distance to spot ratio: 75:1
 Accuracy : ±2% of reading
 Resolution : 0.1° at -83.2 to 999.9 (°C/°F), otherwise 1°
 Emissivity : 0.10 ~ 1.00 (adjustable)
 Response time : 1 second
 Spectral response : 8 ~ 14µm
 Memory : 24 data
 Laser pointer : Dual, class II, up to 1mW
 Thermocouple : K type
 Range : -64 ~ 1400°C (-83.2 ~ 2552°F)
 Accuracy : ±1% of reading
 or 1°C (1.8°F) whichever is greater
 Bead-wire
 Range : -50 ~ 250°C (-58 ~ 482°F)
 Accuracy : ±1% of reading
 or 1°C (1.8°F) whichever is greater
 Power : 2 x 1.5V (AAA battery)
 Size : 204.14 x 179.19 x 58.40mm
 Weight : 355g
 Standard accessories : batteries, hard case, instruction manual,
 warranty card, certificate of product conformance
 Optional accessories : thermocouple probe, bead-wire, magnet stand,
 certificate of calibration



- two laser dots on target indicates area of measurement & changes against distance
- contact & non-contact thermometry
- supports various K type thermocouple
- better distance ratio than IR150
- memory for recording

IRV100

Infrared Video Thermometer (supports various K type thermocouple)

IRV100 shows the video of your target



Measurement range : -50 ~ 1000°C (-58 ~ 1832°F)
 Up to maximum : 5m
 Distance to spot ratio : 50:1
 Accuracy : ±1%±1°C for 20 ~ 500°C,
 ±1.5% for > 500°C; ±3.5% for < 20°C
 Resolution : 0.1°C
 Emissivity : 0.10 ~ 1.00 (adjustable)
 Response time : 150ms
 Spectral response : 8 ~ 14µm
 Laser pointer : Dual, class II, up to 1mW
 Air temperature range : 0 ~ 50°C (32 ~ 122°F)
 RH% range : 0 ~ 100% RH
 Wet bulb range : 0 ~ 50°C (32 ~ 122°F)
 Dew point range : 0 ~ 50°C (32 ~ 122°F)
 Thermocouple : K type
 Range : -50 ~ 1370°C (-58 ~ 2498°F)
 Accuracy : ±0.5%±1.5°C (2.7°F)
 for 0 ~ 1370°C (32 ~ 2498°F)
 or ±2.5°C (4.5°F)
 for -50 ~ 0°C (-58 ~ 32°F)
 Camera : 640 x 480 pixels
 External display : 2.2" TFT 320 x 240 pixels color LCD display
 Interface : USB
 Memory : support up to 8GB micro SD
 Power : 3.7V Li-ion battery
 Size : 205 x 62 x 155mm
 Weight : 410g
 Standard accessories : battery, carrying case, instruction manual,
 warranty card, certificate of product conformance
 Optional accessories : thermocouple probe (penetration / air / surface)
 certificate of calibration

- two laser dots on target indicates area of measurement & changes against distance
- contact & non-contact thermometry
- supports various K type thermocouple
- air, humidity, wet bulb, & dew point measurement
- memory for recording



Fast scanning rates 50Hz : faster inspection
No license required : faster delivery and hassles free

Ti50series Thermo Zoom

Detector	: Uncooled Microbolometer FPA ULIS France (160x120 pixels)
Thermal sensitivity	: 0.1°C at 30°C
Field of view	: 18° x 13°
Image frame rate	: 50/60Hz full real time
Spectral resolution	: 1.9mrad
Temperature range	: -20 ~ 350°C / -4 ~ 662°F (Ti50) -20 ~ 600°C / -4 ~ 1112°F (Ti50+)
Accuracy	: ±2°C or ±2% of reading
Emissivity	: 0.01 ~ 1.00
Video output	: PAL/NTSC composite video (Ti50+)
Voice annotation	: up to 40 seconds per file (Ti50+)



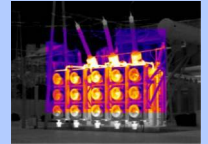
Ti250 Thermo Blend

Detector	: Uncooled Microbolometer FPA (160x120 pixels)
Thermal sensitivity	: 0.1°C at 30°C
Field of view / focus	: 20.6° x 15.5° / 11mm (automatic / motorized)
Image frame rate	: 50/60Hz full real time
Spectral resolution	: 2.27mrad
Temperature range	: -20 ~ 250°C / -4 ~ 482°F (optional up to 350°C / 1200°C)
Accuracy	: ±2°C or ±2% of reading
Emissivity	: 0.01 ~ 1.00
Voice annotation	: up to 50 seconds per file

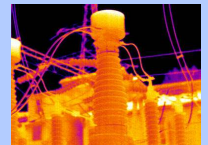
visual image



image blending



thermal image



Ti350e ThermoFocus

Detector	: Uncooled Microbolometer FPA (384x288 pixels)
Thermal sensitivity	: 0.08°C at 30°C
Field of view / focus	: 21.7° x 16.4° / 25mm (manual)
Image frame rate	: 50/60Hz full real time
Spectral resolution	: 1.0mrad
Temperature range	: -20 ~ 350°C / -4 ~ 662°F (optional up to 1500°C)
Accuracy	: ±2°C or ±2% of reading
Emissivity	: 0.01 ~ 1.00
Voice annotation	: up to 60 seconds per file



Ti600 THERMO XTREEM Hi Resolution Thermal Camera

Detector	: Uncooled Microbolometer FPA (384x288 pixels)
Thermal sensitivity	: 0.08°C at 30°C
Field of view / focus	: 21.7° x 16.4° / 25mm (automatic / motorized)
Image frame rate	: 50/60Hz full real time
Spectral resolution	: 1.0mrad
Temperature range	: -20 ~ 600°C / -4 ~ 662°F (optional down to -40°C, up to 1500°C)
Accuracy	: ±2°C or ±2% of reading for -20 to 250°C, ±2°C or ±2% of reading for other
Emissivity	: 0.01 ~ 1.00
Voice annotation	: up to 60 seconds per file





Thermal cameras are now a commonly accepted tool for engineers, technicians. Over the last couple of years, the cost of owning a thermal camera has reached a very affordable level, to suit most applications, but the potential risk of being misled by price alone, can be very costly.



Ti911 Thermal Fighter

Detector : Amorphous Microbolometer FPA (160x120 pixels)
 Thermal sensitivity : 0.1°C at 30°C
 Field of view / focus : 30° x 22.5°
 Image frame rate : 50Hz full real time
 Spectral resolution : 1.0mrad
 Temperature range : -20 ~ 500°C / -4 ~ 932°F
 Accuracy : ±2°C or ±2% of reading

PIM350 Online Process Thermal Imaging Monitoring



Detector : Uncooled Microbolometer FPA ULIS France (160x120 pixels)
 Thermal sensitivity : 0.1°C at 30°C
 Field of view / focus : 18° x 13°
 Image frame rate : 50/60Hz full real time
 Spectral resolution : 1.9mrad
 Temperature range : -20 ~ 350°C / -4 ~ 662°F (optional up to 600°C)
 Accuracy : ±2°C or ±2% of reading
 Emissivity : 0.10 ~ 1.00
 Video output : MPEG4 with RJ45 ethernet output



Hygro Thermometer

HVAC80 Laser Infrared Hygro-Thermometer



Measurement range : -40 ~ 500°C (-40 ~ 932°F)
 Maximum up to : 0.5m
 Distance to spot ratio : 8:1
 Accuracy : IR : ±2% of reading or ±2°C for -20 ~ 450°C, ±3% of reading or ±3°C for others
 Air temp. : ±6°C
 RH% : ±3% for 10 ~ 90%, ±5% for others

Resolution : 0.1°
 Emissivity : 0.30 ~ 0.99 (adjustable)
 Response time : 0.5 second
 Spectral response : 8 ~ 14µm
 Laser pointer : Single, class II, up to 1mW
 Air temperature range : -20 ~ 50°C (-4 ~ 122°F)
 RH% range : 0 ~ 99.9% RH
 Wet bulb range : -21.6 ~ 49.9°C (-6.88 ~ 121.82°F)
 Dew point range : -68 ~ 49.9°C (-90.4 ~ 121.82°F)
 Power : 4 x 1.5V (AAA battery)
 Size : 175 x 50 x 70mm
 Weight : 215g (including batteries)

Standard accessories : battery, hard case, instruction manual, warranty card, certificate of product conformance
 Optional accessories : AC/DC adaptor, RS232 cable with Windows-based data graphing software, calibration salt bottles (33% and 75%), certificate of calibration



Online Infrared Thermometer

IRF400 Online IR Thermometer



* display / controller not included

Measurement range	: 0 ~ 400°C (32 ~ 752°F)
Distance to spot ratio	: 12:1
Accuracy	: ±2% of reading or ±2°C whichever is greater
Emissivity	: fixed at 0.95
Response time	: 300ms
Spectral response	: 8 ~ 14μm
Analog output	: 4 ~ 20mA, linear to temperature (0.04mA/°C)
Ambient temperature	: 0 ~ 70°C (32 ~ 158°F)
Storage temperature	: -30 ~ 85°C (-22 ~ 185°F)
Connection cable	: 1m length, PVC
Power	: isolated power 12 ~ 24V DC @ 20mA
Size	: ø22 x 91mm
Weight	: 158g
Standard accessories	: mounting bracket, instruction manual, warranty card, certificate of product conformance

IRF10-FB / IRF20-FB Optical Fiber Online Infrared Thermometer



Measurement range	: 700 ~ 1800°C / 1292 ~ 3272°F (IRF10-FB) 1000 ~ 2500°C / 1832 ~ 4532°F (IRF20-FB)
Distance to spot ratio	: 20:1
Accuracy	: upper limit of measurement range ±1%
Resolution	: 1°
Emissivity	: 0.20 ~ 1.00 (adjustable)
Response time	: <200ms
Spectral response	: 1.6μm (IRF10-FB) 1.0μm (IRF20-FB)
Analog output	: 4 ~ 20mA (current), 0 ~ 5V (voltage)
Digital output	: 2 wire half duplex RS485
Ambient temperature	: 0 ~ 50°C (control box); ≤200°C (detector head)
Length of optical cable	: 2m
Length of cable	: 3m
Power	: 12V DC @ 300mA
Detector head size	: ø14 x 71mm
Size	: 180 x 120 x 45mm
Weight	: 1.02kg
Standard accessories	: 1m fiber, bracket, carrying case, instruction manual, warranty card, certificate of product conformance

IRF2000-2C Two Colour Online Hi Temperature IR Thermometer

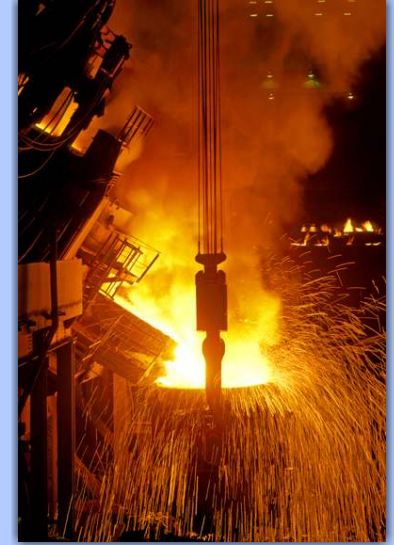


Measurement range	: 1100 ~ 2000°C (2012 ~ 3632°F)
Distance to spot ratio	: 150:1
Accuracy	: 1% of full scale
Resolution	: 1°
Emissivity	: 0.20 ~ 1.00 (adjustable)
Response time	: <100ms
Spectral response	: 0.85 ~ 1.1 and 0.95 ~ 1.1
Analog output	: 4 ~ 20mA
Digital output	: 2 wire half duplex RS485
Ambient temperature	: 0 ~ 50°C
Power	: 12V DC @ 300mA
Size	: ø53 x 215mm
Weight	: 760g
Standard accessories	: bracket, instruction manual, warranty card, certificate of product conformance

High Temperature series

The primary use of this high temperature IR technology is centered on steel making and other glass or plastic production activities. It has been proven to be a very valuable tool in this area. Most recently, high temperature infrared thermometer design has been greatly improved with an advanced electro-optical combination and digital electronics to do such jobs as harsh industrial environment with minimum error due to high reflective energy and dusty environment.

Please visit our website (www.irtek-temp.com) or contact your authorized IRtek local distributor for further information about our High Temperature series



Single-colour and two-colour infrared thermometers

Single-colour or single-wavelength IR thermometers are simple brightness thermometers that utilize a single waveband for measurement. The resulting temperature reading is based on the intensity of a single signal.

Two-colour or dual-wavelength IR thermometers utilize two separate wavebands for measurement. The resulting temperature reading is based on the ratio of the intensities of two signals that are attenuated equally by most Obstructions hence, the ratio stays the same for a given temperature.

Spectral response

The wavelength of infrared energy used for temperature measurement ranges from 0.65 to 14µm. General purpose thermometers respond to a wide band, typically the entire spectrum from 8 to 14µm. However there are specific narrow wavelengths which are better suited for certain applications.

For example :

A spectral response of 1.0 to 1.6µm is preferred for high temperature measurements of metals, and will read through glass (instead of reading the glass itself). A spectral response of 4.8 to 5.2µm is preferred for measuring glass and ceramic surfaces.

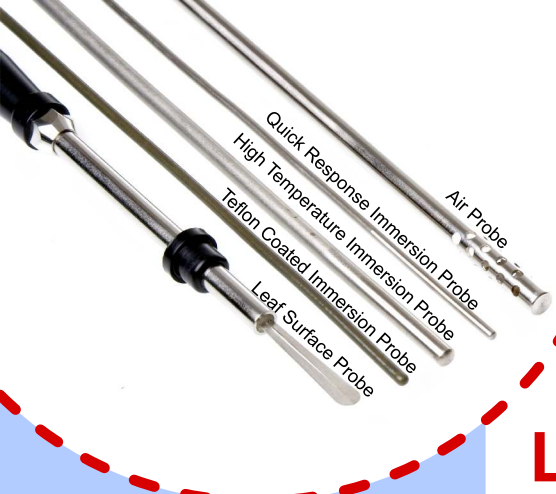


Single Colour Infrared Thermometer IR190 & IR300



Two Colour Infrared Thermometer IR160-2C & IR200-2C

	IR190	IR300	IR160-2C	IR200-2C
Measurement range	350 ~ 1900°C (662 ~ 3452°F)	600 ~ 3000°C (1112 ~ 5432°F)	800 ~ 1600°C (1472 ~ 2912°F)	1100 ~ 2000°C (2012 ~ 3632°F)
Distance to spot ratio	150:1	150:1	150:1	150:1
Accuracy	±1%	±1%	±1%	±1%
Resolution	1°	1°	1°	1°
Emissivity	0.10 ~ 1.00	0.10 ~ 1.00	0.20 ~ 1.00	0.20 ~ 1.00
Spectral response	1.0µm	1.0µm	0.85 ~ 1.1µm and 0.95 ~ 1.1µm	0.85 ~ 1.1µm and 0.95 ~ 1.1µm
Measurement system	Single colour	Single colour	Two colour	Two colour



Thermocouple

Contact-temperature measurement

Some applications require reading inside or internal temperature of the target such as liquid, semi solids or ambient temperature. With K type input provided by IRtek, any external probe of any nature whether air probe, penetration probe or surface probe is acceptable.



The four most common calibrations are J, K, T, and E. There are high temperature calibrations R, S, C, and GB. Each calibration has a different temperature range and environment, although the maximum temperature varies with the diameter of the wire used in the thermocouple. Although the thermocouple calibration dictates the temperature range, the maximum range is also limited by the diameter of the thermocouple wire. That is, a very thin thermocouple may not reach the full temperature range.

Because a thermocouple measures in wide temperature ranges and can be relatively rugged, thermocouples are very often used in industry. The following criteria are used in selecting a thermocouple:

- Temperature range
- Chemical resistance of the thermocouple or sheath material
- Abrasion and vibration resistance
- Installation requirements (may need to be compatible with existing equipment; existing holes may determine probe diameter)

LEAF600C Leaf Surface Probe



Very tight contact with the surface up to 600°C.

Probe type : K type thermocouple

Temperature : 600°C (max)

Cable length : 2m coil cable with sub miniature connector

IM600C Quick Response Immersion Probe



Small diameter and mineral insulated construction gives fast response in air and liquid.

Probe type : K type thermocouple

Temperature : 600°C (max)

Cable length : 2m coil cable with sub miniature connector

TEF200C Teflon Coated Immersion Probe



Special teflon coated probe suitable for corrosive acids and alkalis.

Probe type : K type thermocouple

Temperature : 200°C (max)

Teflon coating: 0.5mm thick

Cable length : 2m coil cable with sub miniature connector

AIR400C Air Probe



For air gas in ducts, chambers, etc. Perforated shield prevents radiation heating, highly sensitive.

Probe type : K type thermocouple

Temperature : 400°C (max)

Cable length : 2m coil cable with sub miniature connector

HIT1150C High Temperature Immersion Probe



Inconel 600 sheath and MI construction allows measurements in air and liquids up to 1150°C. Not suitable for salt bath/molten metal/flue gas application.

Probe type : K type thermocouple

Temperature : 1150°C (max)

Cable length : 2m coil cable with sub miniature connector

Food Safety Thermometer

FP8 Food Thermometer



Measurement range	: -50 ~ 300°C (-58 ~ 572°F)
Accuracy	: ±1°C/°F
Resolution	: 0.1°
Power	: 1.5V LR44 battery
Size	: 244 x 25.5 x 16mm
Weight	: 30g
Standard accessories	: battery, instruction manual, warranty card, certificate of product conformance

IR460 Food Master

- IP65 water resistance suitable for wet area
- external contact probe for checking core or internal temperature of product
- contact & non-contact thermometry



Measurement range	: -40 ~ 280°C (-40 ~ 536°F)
Distance to spot ratio	: 3:1
Accuracy	: ±1°C (2°F) ± 0.1 for < 0°C ±1°C (2°F) for 0 ~ 65°C ±1.5% of reading for > 65°C
Resolution	: 0.1°C (0.2°F)
Emissivity	: 0.97 (fixed)
Response time	: <0.5 second
Spectral response	: 8 ~ 14µm
Target illumination light	: super bright light
RTD probe	: Range : -40 ~ 200°C (-40 ~ 392°F) Accuracy : ±1°C (2°F) for < -5°C : ±0.5°C (1°F) for < -5 ~ 65°C : ±1.5% of reading or ±1°C (2°F) for > 65°C
Power	: 2 x 1.5V (AAA battery)
Size	: 167 x 61.5 x 35.5mm
Weight	: 190g
Standard accessories	: batteries, instruction manual, warranty card, certificate of product conformance

Black Body

Do you need to calibrate your IR thermometer?

If you use it just as a diagnostic or troubleshooting tool, probably not. On the other hand, if you are using a fixed sensor for process control, or making critical measurements, you probably should calibrate your thermometer. IR thermometers are calibrated using a black body calibration source. A black body calibrator is a calibrated precision temperature source with perfect emissivity. Calibration is performed by pointing the thermometer at the calibrator target, and comparing or adjusting the output or display. Black body sources can cost from a few hundred to more than \$20,000 depending on the temperature range.

M400 Black Body



Range	: 50 ~ 400°C (122 ~ 752°F)
Accuracy	: ±0.8°C at T ≤ 100°C (±1.44°F at T ≤ 212°F) ±1.6°C at 100°C < T ≤ 200°C (±3.2°F at 212 < T ≤ 392°F) ±2.8°C at 200°C < T ≤ 400°C (±5.6°F at 392 < T ≤ 752°F)
Stability	: ±0.1°C at T ≤ 100°C (±0.2°F at T ≤ 212°F) ±0.2°C at 100°C < T ≤ 200°C (±0.4°F at 212 < T ≤ 392°F) ±0.4°C at 200°C < T ≤ 400°C (±0.8°F at 392 < T ≤ 752°F)
Resolution	: 0.1°C (0.18°F)
Target emissivity	: 0.95 (fixed)
Heating time	: 30 minutes to max
Cooling time	: 30 minutes to 100°C (212°F)
Aperture diameter	: 58mm
Power	: 220V AC (±10%), 1.5A
Size	: 180 x 114 x 233mm
Weight	: 3kg
Standard accessories	: power cord, IRtek internal certificate of calibration traceable to NIST, instruction manual, warranty card, certificate of product conformance,

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LR500 Thermo Hunter (Long Range Infrared Thermometer) 1

LR1500 Thermo Remote (Extra Long Range Infrared Thermometer) 1

GENERAL PURPOSE IR THERMOMETER 2

IR50i (Best Selling IR Thermometer *) 2

IR60 (Low Cost General Purpose IR Thermometer) 2

IR80 (Premium Class IR Thermometer *) 2

IR80e (Dual Beam Laser Premium Class IR Thermometer *) 3

IR100e (Professional High Accuracy IR Thermometer) 3

IR150 (Dual Beam Laser Infrared Thermometer *) 3

IR180ML (Medium Range Dual Beam Laser Infrared Thermometer with Memory *) 4

IRV100 (Infrared Video Thermometer *) 4

* supports various K type thermocouple

THERMAL CAMERA 5

Ti50series Thermo Zoom 5

Ti250 Thermo Blend 5

Ti350e ThermoFocus 5

Ti600 Thermo Xtream (Hi Resolution Thermal Camera) 5

Ti911 Thermal Fighter 6

PiM350 (Online Process Thermal Imaging Monitoring) 6

HYGRO THERMOMETER 6

HVAC80 (Laser Infrared Hygro-Thermometer) 6

ONLINE INFRARED THERMOMETER 7

IRF400 (Online Infrared Thermometer) 7

IRF10-FB / IRF20-FB (Optical Fiber Online Infrared Thermometer) 7

IRF2000-2C (Two Colour Online Hi Temperature IR Thermometer) 7

HIGH TEMPERATURESERIES 8

IR160-2C (Two Colour Infrared Thermometer) 8

IR190 (Single Colour Infrared Thermometer) 8

IR200-2C (Two Colour Infrared Thermometer) 8

IR300 (Single Colour Infrared Thermometer) 8

THERMOCOUPLE 9

LEAF600C (Leaf Surface Probe) 9

IM600C (Quick Response Immersion Probe) 9

TEF200C (Teflon Coated Immersion Probe) 9

AIR400C (Air Probe) 9

HIT1150C (High Temperature Immersion Probe) 9

FOOD SAFETY THERMOMETER 10

FP8 (Food Thermometer) 10

IR460 (Food Master) 10

BLACK BODY 10

M400 (Black Body) 10

IRtek International
P.O. BOX 435
Joondalup, W.A. 6919
Australia

For more information call :
Phone : +61 (8) 92438849
Fax : +61 (8) 94478835
Email : sales@irtek-temp.com
Web access : www.irtek-temp.com

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