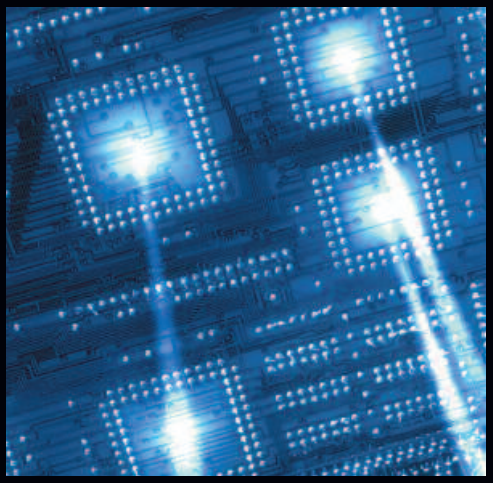
Your Process in a New Light



ULTIMAX Plus
Handheld Non-contact
Infrared Temperature Measurement

IRCON®

IRCON ULT

The Power of Infrared Temperature Measurement in the Palm of Your Hand

IRCON temperature measurement systems have become synonymous with quality and rugged design. Since 1962, our products have performed in the harshest and most volatile conditions with accuracy and reliability, delivering superior performance to end-users worldwide.

Continuing in that light, the ULTIMAX Plus Series of handheld non-contact thermometers – consisting of six models to cover nearly every temperature measure-ment application – includes powerful features to deliver high quality performance. With through-the-lens viewing, all you have to do is aim and measure. Sophisticated microprocessor based electronics allow simple push-button selection of emissivity, response time and measuring mode. Single lens reflex (SLR) optics and a reticle that precisely defines the measured area deliver ultimate accuracy. Both analog and digital outputs are standard features and the temperature values are displayed both in the viewfinder and on the external LCD. Reliability is enhanced by surface mount technology, DC operation and an optical system that does not require optical modulation techniques such as mechanical choppers.

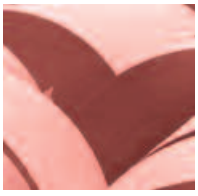
Models UX 10P, UX 20P, and UX 40P

Apply ULTIMAX Power

ULTIMAX Plus non-contact thermometers measure the temperature of an object directly – but without contact! They provide the ideal solution for temperature measurement of objects that are fragile, moving, far away, or behind a protective window – as in a vacuum chamber or controlled atmosphere furnace. You get all the benefits of non-contact infrared temperature measurement with the ULTIMAX Plus:

- Accuracy – heat is not removed from the measured object (as with contact sensors)
- Speed – response times are faster, in milliseconds (not seconds)
- Quality – without contact, damage and contamination of the measured object is eliminated

The ULTIMAX Plus Series features six models that cover four infrared spectral regions: UX-10P, UX-20P, and UX-40P with focusable optics; UX-50P, UX-60P, and UX-70P with fixed focus. The UX-70P is a 2-color model for measuring small targets, targets that have a partially obstructed field-of-view (FOV), or when the energy from the target is attenuated by smoke or dust in the atmosphere. Capable of measuring spot sizes as small as 2mm (0.08 in.) and temperatures as high as 3000 °C (5430 °F), this series is ideal for applications ranging from frozen foods to molten steel



TIMAX® Plus

Models UX 50P, UX 60P, and UX 70P

to maintenance. No matter what your application, ULTIMAX Plus thermometers ensure consistent delivery of high quality finished products. For complete product details, please see the specification chart.

Applications	ULTIMAX Plus Model Number
Incandescent applications such as iron, steel, molten glass, semiconductor processes	UX-10P
Steel mills, foundries, forging, induction heating, glass, semiconductors	UX-20P and UX-60P
General purpose low temperature including thick plastics, paper, wood, textiles, predictive maintenance, electrical maintenance or distribution, electrical systems, machinery, energy loss on commercial buildings, HVAC & R	UX-40P
Heat treating, glass bending, low temperature metal processing	UX-50P
Induction heating, small targets, partially obstructed FOV, smoky or dusty atmospheres	UX-70P

Powerful Datalogging and Trending Software

With a built-in temperature datalogging capability, each ULTIMAX Plus model has the power to store temperature data in its internal memory. Select one of two modes: “Manual Mode” to store temperature data every time the “measure” button is pushed; or “Time Interval Mode” to store up to 1,000 data points continuously at one second intervals (500 data points continuously at one second intervals for models UX 50P, 60P, and 70P). Datalogging is useful for gathering temperature data for predictive maintenance or continuous time interval data for process or testing applications. The stored temperature data can be viewed on the ULTIMAX Plus display or downloaded to a PC with ULTIMAX Plus data analysis software. This software provides a real-time trending function and allows you to graph, display, store, and analyze the logged data or export it directly to a Microsoft® Excel spreadsheet.

Put the power of ULTIMAX Plus to work in your facility. It delivers more performance and features than any other portable infrared thermometer – at a very competitive price! For more information or an on-site demonstration, please contact an IRCON representative today.

Excel is a registered trademark of Microsoft Corporation.

ULTIMAX Plus Series – Specifications

Model No. & Spectral Region	UX-10P (0.65µm)	UX-20P (0.96µm)	UX-40P (8 to 13µm)	UX-50P (1.55µm)	UX-60P (0.96µm)	UX-70P (0.96 & 1.55µm)
Temperature Range	900 to 3000°C 1655 to 5430°F	600 to 3000°C 1115 to 5430°F	-50 to 1000°C -50 to 1830°F	300 to 1000°C 575 to 1830°F	600 to 2000°C 1115 to 3630°F	*2-color mode:* 600 to 2000°C *or* 1115 to 3630°F *1-color mode:* 400 to 3000°C *or* 755 to 5430°F
Optical Resolution	D/250	D/100	D/40	20mm spot diameter (0 - 4 m distance)	20 mm spot diameter (0 - 4 m distance)	20mm spot diameter (0 - 4 m distance)
Focus Distance *	Focusable from 500 mm to ∞	Focusable from 500 mm to ∞	Focusable from 700 mm to ∞	Fixed Focus at 4000 mm (13 ft)	Fixed Focus at 4000 mm (13 ft)	Fixed Focus at 4000 mm (13 ft)
Accuracy at 23 ± 5°C (73 ± 9°F) ambient temperature and 35 to 75% relative humidity	± 0.5% of reading *at <1500°C (2700°F)* ± 1.0% of reading *at >1500°C (2700°F)* ± 2.0% of reading *at >2000°C (3600°F)* *Note: all values ± 1 digit*	± 0.5% of reading *at <1500°C (2700°F)* ± 1.0% of reading *at >1500°C (2700°F)* ± 2.0% of reading *at >2000°C (3600°F)* *Note: all values ± 1 digit*	± 1.0% of reading or ± 2°C (± 4°F), *whichever is greater. Note: all values ± 1 digit*	± 6°C (± 11°F)	± 6°C (± 11°F) *at <1000°C (1800°F)* ± 0.6% of reading *at >1000°C (1800°F)* ± 1.2% of reading *at >1500°C (2700°F)*	± 6°C (± 11°F) *at <1000°C (1800°F)* ± 0.6% of reading *at >1000°C (1800°F)* ± 1.2% of reading *at >1500°C (2700°F)* ± 2.4% of reading *at >2000°C (3600°F)*
Response Time (95% response)	0.5 sec	0.5 sec	1.0 sec	0.2 sec	0.2 sec	0.2 sec
Emissivity Compensation	User-adjustable from 0.10 to 1.00 in 0.01 steps	User-adjustable from 0.10 to 1.00 in 0.01 steps	User-adjustable from 0.10 to 1.00 in 0.01 steps	User-adjustable from 0.100 to 1.900 in 0.001 steps	User-adjustable from 0.100 to 1.900 in 0.001 steps	User-adjustable from 0.800 to 1.200 in 2-color mode or from 0.100 to 1.900 in 1-color mode, *each in 0.001 steps*
Analog Output	0 to 1.0 VDC	0 to 1.0 VDC	0 to 1.0 VDC	---	---	---
Measuring Modes						
Real time temp	Yes			Yes		
Average temp	Yes (averaging time adj. from 0 to 99.9 sec.)			Yes (averaging time adj. for 0, 0.2, 0.5, or 1 sec.)		
Max or min temp	Yes (set peak or valley to infinite-hold time)			Yes		
Peak or valley	Peak or valley with adj. decay rate			Peak or valley with adj. decay rate		
Decay rate	Adjustable from 0 to 99.9 sec. in 1 sec. steps or to hold			Adjustable for 0, 2, 5, or 10 deg/sec (*°C or °F*)		
Datalogger	1000 data point capacity			500 data point capacity		
Thermocouple Input	---			Standard K-type		
Backlight Display	---			Automatic backlighting of LCD display (ambient light sensor)		
Auto Power OFF	After 5 minutes			After 30 seconds		
Lens Diameter	30 mm (1.2 in)			20 mm (0.8 in)		
Batteries	4 type AA			2 type AA		
Weight	700 g (25 oz.) without batteries			350 g (12 oz.) without batteries		
Dimensions	135 mm W x 60 mm H x 175 mm D (5.3 in. W x 2.4 in. H x 6.9 in. D)			148 mm W x 100 mm H x 70 mm D (5.8 in. W x 4.0 in. H x 2.8 in. D)		
NIST Certification (optional)	Certificate of Calibration traceable to NIST standards					

* *Optional close focus lens available*

Accessories

- Datalogging Software UX-SW40N (license) for UX-10P, 20P or 40P and digital cable †
- Datalogging Software UX-SW50N (license) for UX-50P, 60P or 70P and digital cable †
- Digital Cable, 2 m (6 ft.) long, 2.5mm micro phone plug x D-SUB 9-pin connector
- Analog Cable, 2 m (6 ft.) long, 2.5mm micro phone plug x alligator clips
- Close Focus Lens, 100 to 130mm focus distance 1.0 to 1.3mm spot diameter - for UX-10P or 20P
- Close Focus Lens, 130 to 180mm focus distance 1.3 to 1.8mm spot diameter - for UX-10P or 20P
- Close Focus Lens, 180 to 290mm focus distance 1.8 to 2.9mm spot diameter – for UX-10P or 20P
- Close Focus Lens, 250 to 540mm focus distance 2.5 to 5.4mm spot diameter – for UX-10P or 20P
- Power Adapter, 100-240 VAC to 4.8 VDC, CE Approved, with US type plug

† *For Windows 95 or later. Not applicable with Windows NT.*

Note: Specifications subject to change without notice.

All ULTIMAX Plus Models Feature:

- TTL (Through-The-Lens) sighting, with circular reticle in viewfinder, that show the exact area measured at the focal distance and an eye protection filter for sighting high temperature targets
- 4 digit LCD temperature display in viewfinder and 4 digit LCD on back panel
- Temperature readings in °C or °F (user-selectable)
- Temperature resolution of 1°C or 1°F (based on temperature scale selected)
- Repeatability of ±1.0°C or ± 1°F
- Calibration curve can be modified (user-changeable)
- Continuous measurement mode (AC adapter recommended)
- RS-232-C digital output
- Adjustable HI/LO alarm set-points
- Battery life of approximately 20 hrs (continuous use) and a battery life indicator
- Ambient operating temperature from 0 to 50°C (32 to 122°F)
- Status display at start up and self diagnostics with warning indication for abnormal internal temperature and for EEPROM error.
- ABS housing

For more information call IRCON at **1-800-323-7660**, visit our Web site at **www.ircon.com,** or e-mail us at **info@ircon.com**

CE ISO 9001 : 2000 Quality System Certified NIST Calibration Provider

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