



RADIATION THERMOMETER

PhotriX™

Ultra Fast Pyrometer for Demanding Industrial Processes

Best Signal-to-Noise Ratio in the Industry

The PhotriX™ Pyrometer from Luxtron offers the most precise non-contact measurements for industrial environments requiring closed loop control of thermal processes. Targeted at applications involving rapid thermal ramps, assembly lines with fast-moving objects, and applications with very small targets the PhotriX™ offers unparalleled precision at ultra high speeds.

Superior Performance

Temperature measurements in many industrial-heating applications require repeatability as well as high resolution. The PhotriX™ system offers unmatched precision and speed made possible by its superior signal-to-noise ratio (SNR). The higher sampling speed (up to 1kHz) enables faster ramp rates of processes leading to higher throughput. The innovative design of the PhotriX™ also makes it exceptionally stable for long process cycles and its repeatable performance ensures consistent product quality.

Minute Spot Size

The best-in-class SNR of the PhotriX™ allows it to make precise measurements while viewing very small spot sizes on the target material, as small as 1 millimeter. This unique feature combined with PhotriX's high speed offers unmatched spatial resolution of measurements for very small targets (e.g., filaments, wire, etc.) and targets with obstructed views.

Production Proven

Packaged in a rugged and compact enclosure, the PhotriX™ system is designed for convenient integration into industrial equipment and processes. The sensor is protected in a stainless steel housing that is easily mounted using the incorporated threaded body.



Applications

- **Advanced Materials Processing**

- Crystal Growth
- Semiconductor Processing
- Flat Panel Production
- Deposition and Etch

- **Industrial Heating**

- Optical Fiber Drawing
- Vacuum Furnaces
- Induction Heating
- Annealing
- Ovens

- **Chemical / Petrochemical**

- Incinerators
- Refractory Ovens
- Turbines

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Specifications

Temperature Range	Standard Spot	Mini-Spot
Minimum	65°C	125°C
Maximum	1100°C	2800°C
Wavelength	700 - 1650nm	
Resolution	0.01°C Above 150°C	
Accuracy	± 1.5°C or 0.15 % of Reading	
Speed	Up to 1 kHz	
Repeatability	< 0.15 °C per Year Drift	
Output	RS-232 (Standard); Analog Output (Optional)	
Ambient Range	10-60°C	
Dimensions	35.0mm Diameter, 165mm Length	
Power	Universal Power Supply (also accepts 12VDC)	

Target Materials

The wavelengths that the PhotriX™ operates at are suitable for the following targets:

♦ Metal Oxides ♦ Ceramics ♦ SiO₂ ♦ SiC ♦ Graphite

Working Distance*	Standard Spot Size (dia.)	Mini Spot Size (dia.)
75mm	2.0mm	1.0mm
150mm	3.8mm	1.5mm
300mm	7.5mm	2.5mm
500mm	12.5mm	3.5mm
1000mm	25.0mm	8.0mm

* Custom working distances available for surcharge

Standard System Includes

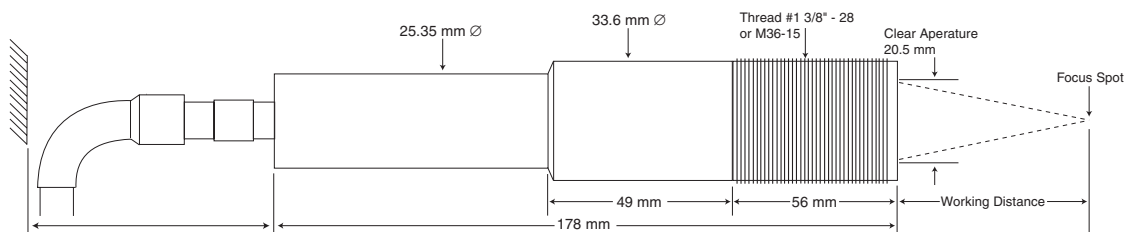
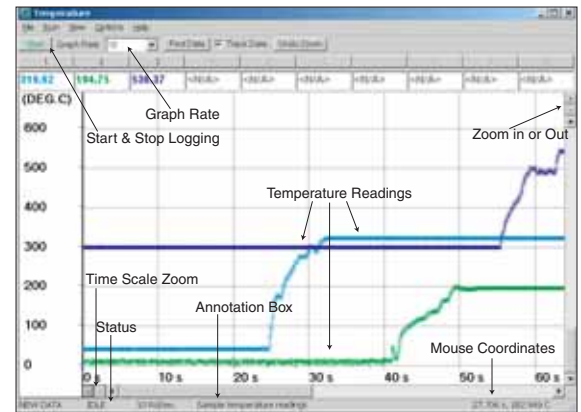
- Sensor Electronics with Anti-reflective Coated Lens
- PhotriX™ Communication Interface Module (CIM)
- Software for PC that Performs Data Acquisition, Graphing and Setup Interface
- 4m Cable to Connect CIM to Sensor
- 3m RS-232 Interface Cable to Connect CIM to PC
- Universal Power Supply
- Calibration Certificate
- Manual

Available Accessories

- Multi-channel PC Interface
- Analog Output Module (0-10V or 4-20mA)
- Carrying Case

Software

The PhotriX™ TemperaSure™ software is included and provides a graphical interface to change settings and log and/or display data. The software is not required for operation after setup is complete.



Your local Luxtron representative is:

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3033 Scott Blvd.
Santa Clara, CA 95054-3316
ph: +1.408.727.1600
fx: +1.408.727.1677
www.luxtron.com

a **lumasense** company
TECHNOLOGIES, INC.