



# RADIATION THERMOMETER

## PhotriX<sup>™</sup>

*Ultra Fast Pyrometer for Demanding Industrial Processes*

### Best Signal-to-Noise Ratio in the Industry

The PhotriX<sup>™</sup> 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<sup>™</sup> 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<sup>™</sup> 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<sup>™</sup> 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<sup>™</sup> 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<sup>™</sup> 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 ◆ SiO<sub>2</sub> ◆ 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

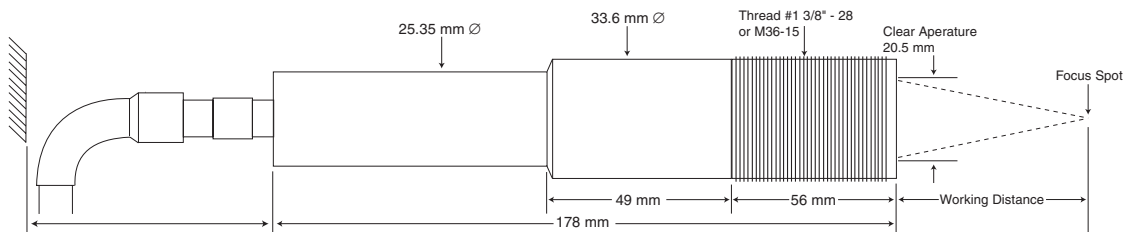
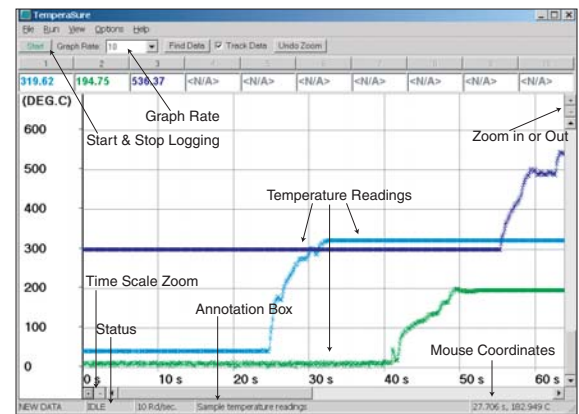
- Sensor Electronics with Anti-reflective Coated Lens
- PhotriX™ Communication Interface Module (CIM)
- Software for PC that Performs Data Acquisition, Graphing and Setup Interface
- 4m Cable to Connect CIM to Sensor
- 3m RS-232 Interface Cable to Connect CIM to PC
- Universal Power Supply
- Calibration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