

## Fiber optic thermometer for harsh environments

### Luxtron® 812 Industrial Temperature Monitor

- Probes immune to RF, EMI, and microwave interference
- Turn-key system with built-in display
- Small footprint for easy and quick setup (mounting holes on case)
- Tamper proof design prevents unauthorized calibration or parameter changes
- Sturdy metal case built for industrial monitoring
- Set it and forget it...stable and inert sensor



The LUXTRON 812 (formerly LUXTRON I652) is an industrial grade fiber optic temperature monitoring system designed with two measurement channels and an easy-to-read LED display. The tough metal enclosure of the 812 provides electromagnetic shielding in the harshest environments. Its tamper-proof design allows only authorized personnel the ability to change calibration or monitoring parameters. The LUXTRON 812 can be incorporated into an industrial control scheme through the RS232 or analog outputs.

#### Designed For The Most Challenging Applications

Luxtron fiber optic temperature measurement systems are at their best where thermocouples, thermistors and RTDs are at their worst because Luxtron brand Fluoroptic® (FOT) probes are immune to high voltage, radio frequency (RF) interference, and eletro-magnetic interference (EMI). Our FOT probes are ideal for harsh environments on applications like semiconductor ETCH chambers, high-voltage transformers, and electrical equipment. The Luxtron line of fiber

optic temperature sensors can go where thermocouples, thermistors and RTDs cannot be used.

#### Probes For Your Application

No temperature measurement system is complete without a probe that can survive the environment it is in. We offer dozens of Luxtron brand FOT probes for special applications, many of which are offered as standard products. Our applications engineers are expert at customizing probe designs to suit your particular application. Additionally, we offer probes that contain no metal and cables that are far more durable than the industry standard.

#### Proven Quality Without Drift or Re-Calibration

With more than 30 years of experience and thousands of systems installed worldwide the Luxtron brand is the most trustworthy name in fiber optic thermometry. The materials we use are inert, inherently stable, and intrinsically safe so our systems have high accuracy under extreme conditions.

#### Typical Applications:

- Process monitoring of dielectric (microwave and RF) heating processes
- Monitoring of chemical reactions
- Temperature monitoring of "live" electrical circuits during lifetime testing
- Testing temperature of capacitors and resistors in high power applications
- Temperature monitoring of microwave processes
- Temperature monitoring during magnetic resonance imaging (MRI) procedures

## Specifications

Channels	2
Measurement Range	-100 to 330 °C, probe dependent
Electrical Interference	Probe immune to EMI, RF, and high-voltage
Accuracy (calibrated)	+/- 0.5 °C RMS @ 8 samples per measurement
Output Resolution	Max 4 Hz for single channel, configurable
Output Format	°C, °F, °K
Self Diagnosis	Self diagnosis and probe error reading on display
Input Power	24 VDC ±5%, 300 mA (100-240 VAC Universal Power Supply included)
Serial Output	RS232

Analog Output	0-10 VDC
Dimensions (case)	11.5 H x 113.0 W x 68.1 D (mm)
Storage Temperature	-30 to 75 °C
Operating Environment	10 °C to 50 °C, 80% RH (max0 non-condensing)
Connector	ST-Type
Mounting	Rubber feet for table top use - can be removed for wall mounting with #6 screws

**Kit Includes:** 2-Channel Instrument, Universal Power Supply (100-240VAC), Cable for RS232 Serial Communication & User's Guide

**Available Accessories:** Fiber Optic Extension Cables, Vacuum Feedthroughs, Data Acquisition and Graphing Software, Lab View Drivers

## Compatible Probes\*

Type	Temperature Range	Application
Microprobe	-10 to 120 °C	Ultra small (0.25 mm)
STF	0 to 295 °C	Fast response
STS	-25 to 200 °C	Surface contact
STM	25 to 250 °C	General immersion
WTS	30 to 200 °C	Electric power

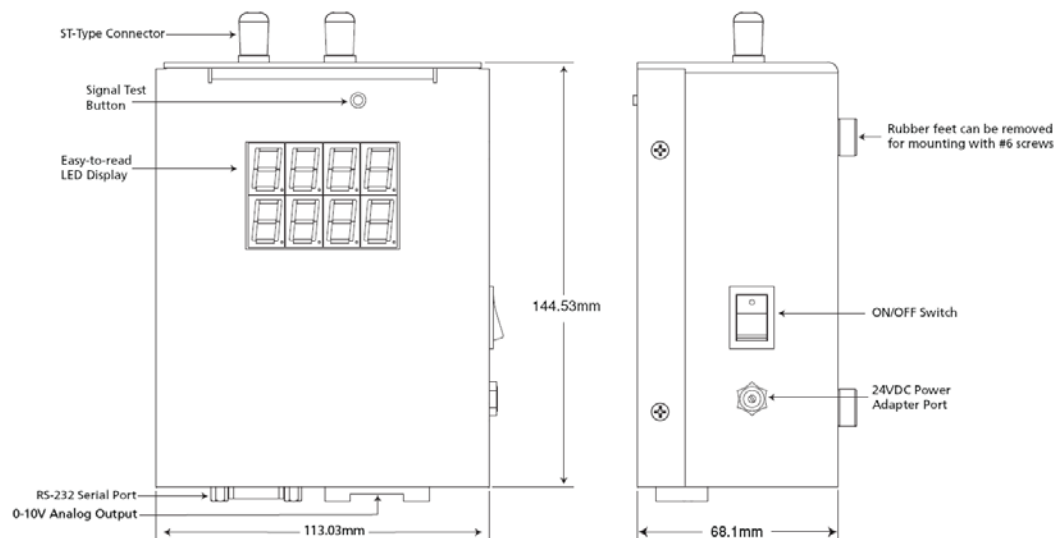


*Luxtron Microprobe*



\* For more information on probe specifications, please see the Probes and Accessories datasheet.

## Dimensions



## LumaSense Technologies

## Awakening Your 6<sup>th</sup> Sense

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