

*High Temperature  
Fiber Optic Temperature Sensor*

250°C

#### HIGHLIGHTS

- 250°C and Above
- RF/EMI/MW Immune
- Low Thermal Mass
- Miniature
- Intrinsically Safe
- LumiSmart<sup>®</sup> Connector

#### Description

The X5-Red is the High-Temperature range sensor in the LumiTherm X5 line of EMI, RF and MW immune fiber optic thermometers. Radio Frequencies and Microwaves are present in a broad variety of applications, and the X5 line of fiber optic sensors gets along very well with this portion of the electromagnetic spectrum.

#### Applications

- Aerospace
- Healthcare research
- Semiconductor equipment
- Energy, power transport & distribution
- Industrial realtime monitoring
- Chemical reactions, Microwave processes

#### Other Models

The X5 line of sensors offers different models with complementary specifications to suit your distinctive needs.

To suit a broad variety of different applications, other X5 standard and custom sensors are available. Visit our website or contact us for details.

#### Accurate

X5 sensors use the recognized fluorescence decay temperature sensing principle to provide Fast, Accurate and Consistent temperature measurement in harsh environments. Our sensors are the most accurate fiber optic sensors on the market today.

#### Affordable

The X5 line has benefitted from recent improvements in components manufacturing. Because of this, IPITEK was able to design an extremely high-quality product with one idea in mind: Your Budget. Many applications that would benefit from the use of optical sensors cannot justify the investment in high-priced equipment offered by legacy vendors. IPITEK's Lumitherm X5 addresses just that issue.

#### Simple

There's no reason for it to be complicated, after all, it's just a thermometer. With its LumiSmart connector, the X5 sensor is easier to use than a thermocouple and ready to use in just three simple steps:

**Unwrap it - Plug it in - Read**

## SPECIFICATIONS

Temperature range: -40 to 250°C (other ranges available)  
 Accuracy:  $\pm 1^\circ\text{C}$   
 Resolution: 0.1°C  
 Probe material: TEFZEL tight buffer  
 Fiber Type: 300  $\mu\text{m}$  glass fiber  
 Connector Type: LumiSmart  
 Cable Length: 2 meters (other lengths available)  
 Readout: 1 to 28 channels

**Benchtop**  
1 to 4 Channels

**Rack Mount**  
4 to 28 Channels

**OEM Board**  
1 to 4 Channels

(Click button to view data sheet)

## X5 TECHNOLOGY

LumiTherm X5 Technology uses a fluorescence-decay process. Since fluorescence decay is a fundamental atomic property of phosphors, it can accurately determine temperature and remains ultra-stable for years.

## OTHER SENSORS

(click button to view data sheet)

**X5-BLUE** Range: -40° to 120°C  
Accuracy:  $\pm 1^\circ\text{C}$

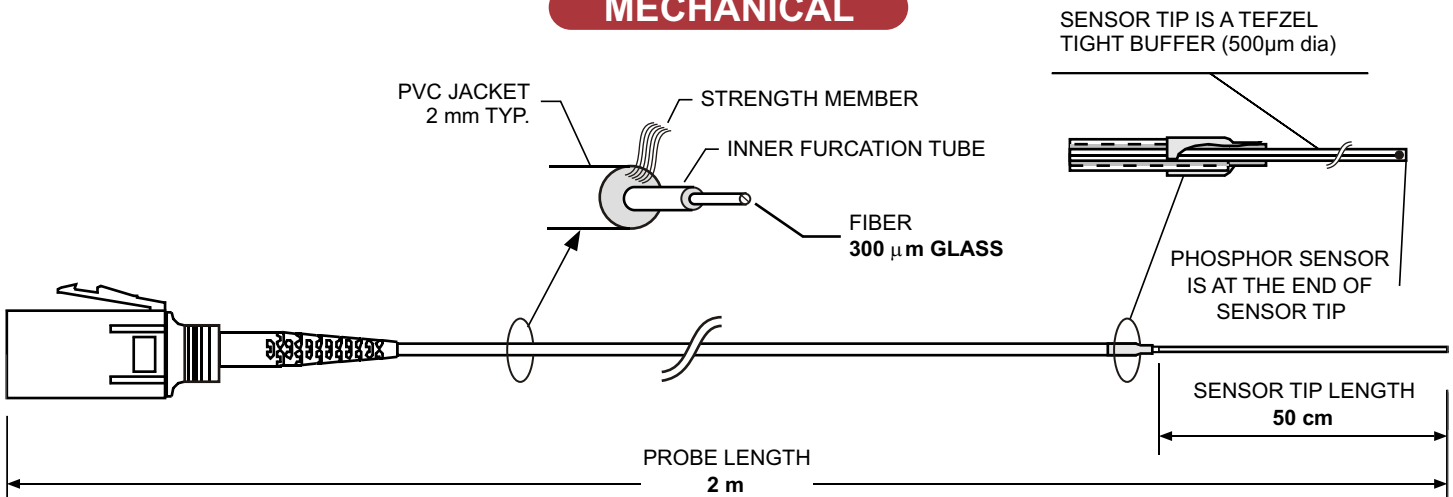
**X5-TRUE** Range: 0 to 80°C  
Accuracy:  $\pm 0.2^\circ\text{C}$



## LumiSmart CONNECTOR

X5 Sensors are equipped with a LumiSmart connector containing an embedded microchip that stores the sensor's calibration data. This way, you never have to worry about identifying the sensor to the signal conditioner or type in any calibration factor. It's as simple as "plug-and-read."

## MECHANICAL



## ORDERING INFORMATION

<b>LT-X5RS</b>	-	<b>XX</b>	-	<b>XX</b>
<i>Lumitherm X5 Red Sensor</i>		<b>Cable</b>		<b>Tip Length</b>
		<b>02</b> = 2 meters		<b>50</b> = 50 cm
		<b>05</b> = 5 meters		<b>100</b> = 100 cm
		<b>10</b> = 10 meters		*other lengths available by request
		*other lengths available by request		