FIBER OPTIC TEMPERATURE SENSOR

Opto**Temp** 2000

Up to 950 °C, Immune to EMI, Microwave

Designed for reliable operation in harsh chemical and electrical environments, the OptoTemp 2000 is unaffected by microwave/RF radiation and plasma. It can measure temperature up to 950 °C, almost 700 °C higher than what competing fiber optic thermometers can reach.

The OptoTemp Difference

MMI's patented technology (U.S. Pat. 6,045,259) for monolithic single-crystal temperature probes eliminated the need for unreliable mechanical coupling. It measures temperature using the information derived from fluorescence decay, a field proven technique in hundreds of industrial installations for 25 years. MMI probes can withstand thermal stress and harsh environments unattainable with hitherto technology.

Benefits

- Immune to EMI, RF and microwave
- Operates up to 950 °C
- Precise and reliable
- Inert probe

Applications

- Microwave/RF heating
- Chemical processing
- Molten metal measurements
- Plasma processing
- Semiconductor processing

An Established Record

MicroMaterials has manufactured single crystal sensing elements since 1999. MMI's fiber optic products have been used by Fortune 500 companies around the world.

micromaterials

Opto**Temp** 2000

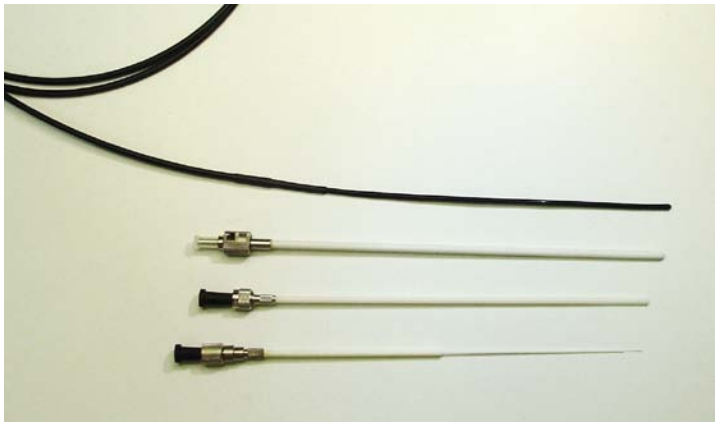
Fiber- optic temperature sensors

Opto**Temp 2000-Controller Specifications**	
Channels	**Up to 4**
Response Time	**250 msec**
Sample Rate	**4 samples/sec**
Power Requirement	**90-260 VAC, 50-60 Hz**
Power Consumption	**5W @ 7.5 VDC**
Output Port	**RS-232**
Display	**Back lighted LCD**
Fiber Connector Type	**SMA for Ultra, ST for Flex and Super**
Dimension	**17 cm (L) x 7 cm (W) x 3 cm (H)**
Housing	**Anodized aluminum**

Specifications for Probes			
	FLEX	**SUPER**	**ULTRA**
Temperature Range	**10 °C to 230 °C**	**10 °C to 400 °C**	**200 °C to 950 °C**
Overall Diameter	**2 mm**	**1 mm or 3 mm**	**1 mm or 3 mm ***
Active Probe Length	**15 cm ****	**15 cm ****	**15 cm ****
Protective Sheath Material	**PFA**	**ceramic**	**ceramic**
Accuracy	**+/- 0.5 °C**	**+/- 1.0 °C**	**+/- 2.0 °C**
Precision (RMS over 8 samples)	**+/- 0.5 °C**	**+/- 0.5 °C**	**+/- 1.0 °C**

*** A low thermal mass version with exposed 0.2 mm tip is also available (bottom probe in figure)**

**** Longer or shorter lengths available on custom probes**



For more information...

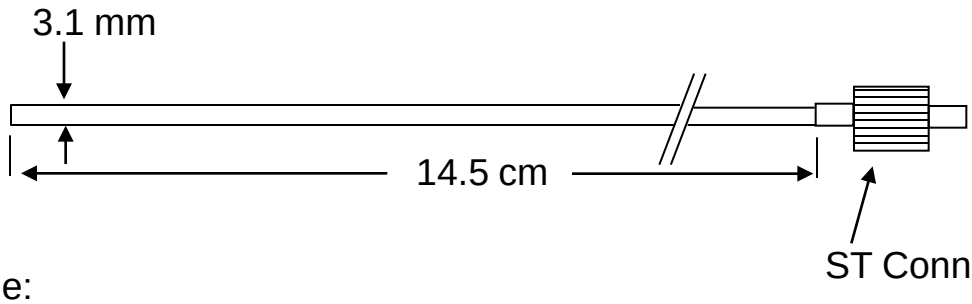
Please contact us at
info@micromaterialsinc.com

MicroMaterials, Inc.
13302 Telecom Dr.
Tampa, FL 33637
813-971-2818

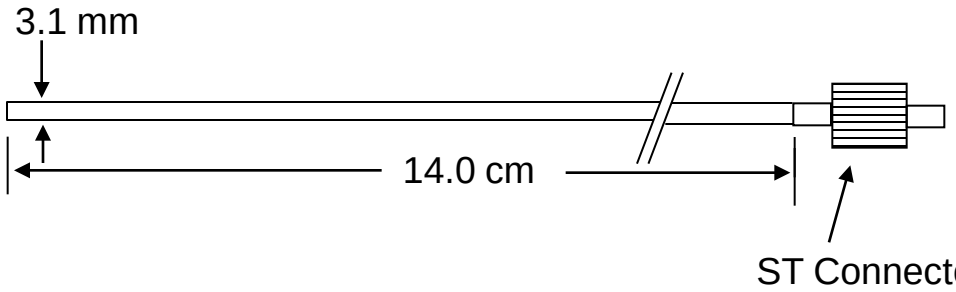
www.micro*materials*inc.com

OptoTemp 2000 Probe Dimensions

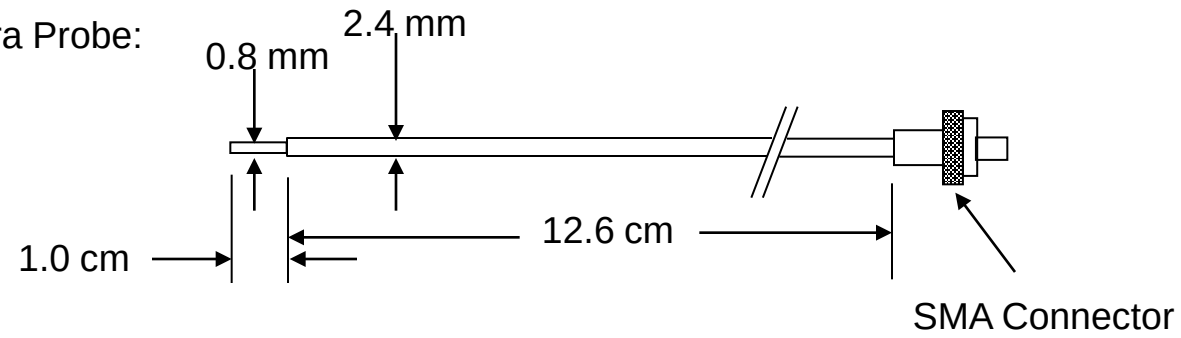
3 mm Ultra Probe:



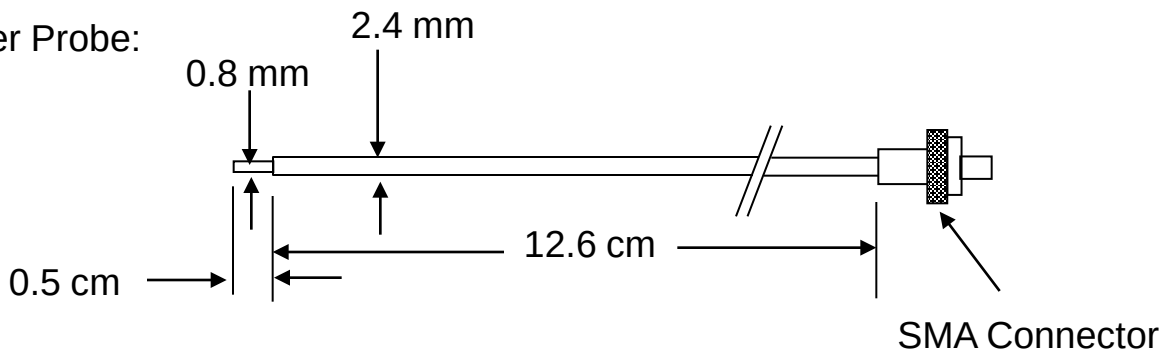
3 mm Super Probe:



1 mm Ultra Probe:



1 mm Super Probe:



micromaterials