

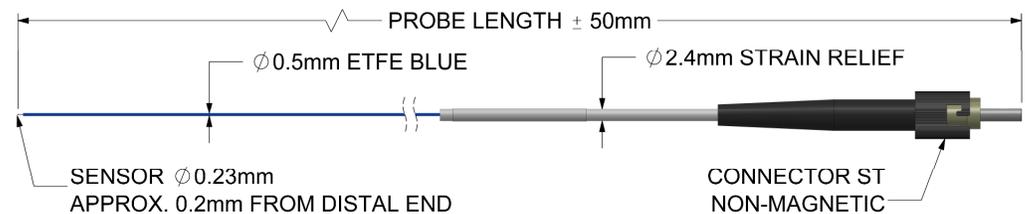
## MRI and Cryogenic Temperature Sensing

### Non-magnetic, Non-Conducting, Optical Fiber Probes with Exceptional Precision

OSENSA's fast response PRB-240 contact temperature probes provide accurate and reliable temperature sensing for a variety of life sciences, microwave and laboratory research applications requiring immunity to high intensity electro-magnetic fields and RF energy. These probes are constructed with an exposed sensing element on the tip and are ideal for MRI electrode, cryogenic tissue, or electronics package sensing. They can handle temperatures from -95°C up to 80°C while providing extremely fast response times.

## Product Specifications

### PRB-240-2M-STM-MRI



System Specifications	PRB-240-2M-STM-MRI	PRB-240-2M-STM-CRYO
Calibrated Accuracy <sup>1,2</sup> (20°C to 60°C)	$\pm 0.15^\circ\text{C}$	$\pm 0.25^\circ\text{C}$
Stability (15min)	$\pm 0.02^\circ\text{C}$	$\pm 0.03^\circ\text{C}$
Noise (1 second averaging)	$\pm 0.02^\circ\text{C}$	$\pm 0.02^\circ\text{C}$
Measurement Range	-40°C to 80°C	-95°C to 80°C
Immersion Response Time Constant	180 ms	180 ms
Fiber Core Diameter	225 $\mu\text{m}$	225 $\mu\text{m}$
Tip Diameter	225 $\mu\text{m}$	225 $\mu\text{m}$
Minimum Bend Radius	16 mm	16 mm
Probe Materials	Polyimide & ETFE	Polyimide & ETFE

#### Notes:

1. Calibrated accuracy is valid within  $\pm 20^\circ\text{C}$  of calibration point. A custom calibration is required for accuracy to be valid across the full sensing range.
2. Submersion in aqueous solutions like PAA gel or Saline will shift the temperature reading  $0.2^\circ\text{C}$  higher with stability reached in 30min. After removing from water, the probe will return to original calibration after 1 hour drying at  $40^\circ\text{C}$ .
3. Compatible with OSENSA's FTX-300-LUX+ series fiber optic signal conditioners.
4. Custom lengths available upon request.
5. For longer distances add extension cable EXT-400-10M-STM-STM, in lengths from 2m to 20m.

#### TECHNICAL SUPPORT

OSENSA Innovations offers on-site support, commissioning, and training for all of its products. For immediate assistance with any technical issue, please contact [support@osensa.com](mailto:support@osensa.com) or call 1-888-732-0016.

#### WARRANTY INFORMATION

OSENSA Innovations stands behind its products and services. All fiber optic temperature probes and signal conditioners ship with a full one year repair or replacement warranty. You may also purchase an extended five year warranty. Some conditions apply.

#### CUSTOM OEM SOLUTIONS

OSENSA offers cost-effective design and consulting services at discounted rates for high-volume OEM customers. Let the engineering team at OSENSA Innovations help you rapidly develop custom probes for your research application. OSENSA's team has many years of experience designing fiber optic temperature probes for various laboratory environments.

#### FURTHER INFORMATION

For more information on any of our products or services please visit our website: [www.osensa.com](http://www.osensa.com) or email: [info@osensa.com](mailto:info@osensa.com).

