

# Fiber Optic Tip Pressure Sensor

0.20 mm OD miniature sensor



## Features

- Ultra miniature
- High fidelity
- Easy catheter integration
- Custom sensor packaging
- EMI/RFI immunity
- MRI safe and compatible
- Low cost

## Applications

- Physiological pressure monitoring:
- Catheter research, new product development design
- Guidewires design (0.2,5 mm OD model)
- Cardiac assist applications
- Pressure measurement under electro-surgery, MRI and MW/RF related practices

The FTFS is a MEMS-based fiber optic pressure sensor specifically designed for physiological pressure measurements in both human and animal applications. Constructed with non-metallic materials, it is fully immune to EMI and RFI interference. This miniature sensor, with an outer diameter of just 0.20 mm, is ideal for integration into catheters, guidewires, or other devices for minimally invasive pressure measurements. The patent-pending design eliminates moisture-induced drift and significantly reduces thermal zero shift. We offer customizable sensor encapsulation at the sensor tip and/or along the entire optical cable, available in various materials and sizes to meet specific OEM application needs.

When paired with the OPRO readout unit, the FTFS delivers long-term accuracy, repeatability, low drift, and high-fidelity pressure measurements, even in harsh environments with EM, RF, MR, and microwave fields.

## Specifications

Parameter	Min	Typical	Max	Unit
Dimension (mm O.D.)		0.20		mm
Pressure range (relative to atmospheric pressure)	-300		+350	mmHg
Precision		± 1		mmHg
Resolution		0.2		mmHg
Moisture drift		< 3		mmHg/28 days
Thermal coefficient of Zero		0.2		mmHg per °C
Proof pressure		4000		mmHg
Operating temperature	10		50	°C
Operating humidity range	0		100	%
EM/RF/MR/MW susceptibility	Complete immunity			
Cable length	1.5 meters standard (Other lengths available)			
Optical connector	SC standard			
Cable sheathing	Customer specifications			

### Note:

1. The OPRO readout is designed to be integrated into customer host system but is not approved by the FDA or by any applicable regulatory bodies.

**Note:** The specifications provided are for general applications with a cost-effective approach. If you need to narrow or expand the tolerance, coverage, limit, or qualifications, please [click this link](#):

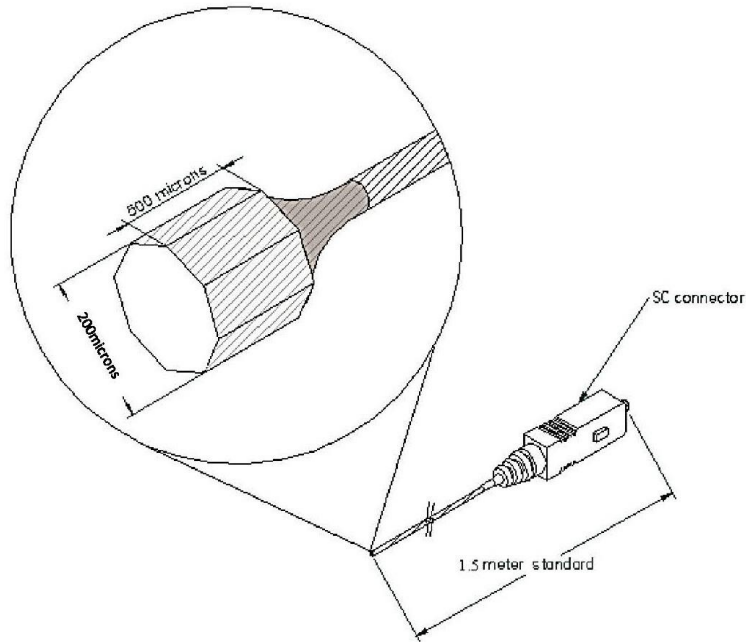
Rev 11/10/24

# Fiber Optic Tip Pressure Sensor

0.20 mm OD miniature sensor

DATASHEET

## Mechanical Dimension (mm)



## Ordering Information

Prefix	Package	Fiber Cover	Fiber Length	Connector	Readout			
<b>FTPS-</b>	A = 1 B = 2 Special = 0	0.9mm tube = 1 3mm tube = 2 0.2mm coating = 3 Polyimide 0.2mm coating = 4 2.8mm peek = P Special = 0	1.5m = 1 2m = 2 Special = 0	SC = SC FC = FC Special = 00	Single Channel = 01 Dual Channel = 02 Special = 00			