

PRODUCT DATASHEET

FOP-MS Pressure Sensor



The FOP-MS is a fiber optic pressure sensor designed for general industrial applications. Designed to fit where standard sensors cannot, FISO'S side-looking fiber optic pressure sensor features complete immunity to EMI and RFI and offers built-in safety for hazardous environments.

The FOP-MS sensor is designed to provide pressure measurements when a vertical instrumentation with a standard fiber optic sensor is not possible, whether it is due to space restriction or design constraint.

The FOP-MS pressure sensor offers small size, high accuracy, and resistance to corrosive environments with a high temperature range.

Research engineers in different industrial areas may now improve process and product technology by monitoring the performance of specific properties over time to provide accurate information on changes in pressure during the manufacturing process or throughout the lifetime of a product. The use of the FOP-MS pressure sensor allows a complete pressure analysis in the most challenging environments.

The FOP-MS fiber optic pressure sensor is based on proven Fabry-Perot interferometer technology. The sensor's unique design is based on non-contact deflection measurement of a silicon diaphragm, as opposed to more conventional stress measurement techniques. Pressure creates a variation in the length of the Fabry-Perot cavity and the fiber optic signal conditioners can consistently measure the cavity length with high accuracy under all adverse conditions of temperature, EMI, humidity and vibration.

This new side-looking pressure sensor provides the industry with highly reliable pressure measurements for existing applications, and with extended capabilities for new applications. In addition to the advantages inherent to fiber optic sensors, our white light interrogation technique assures highly accurate and reliable measurements.

Key Features

- "Side-looking" sensor designed to fit where standard sensors cannot
- Intrinsically safe
- Immune to EMI/RFI

Applications

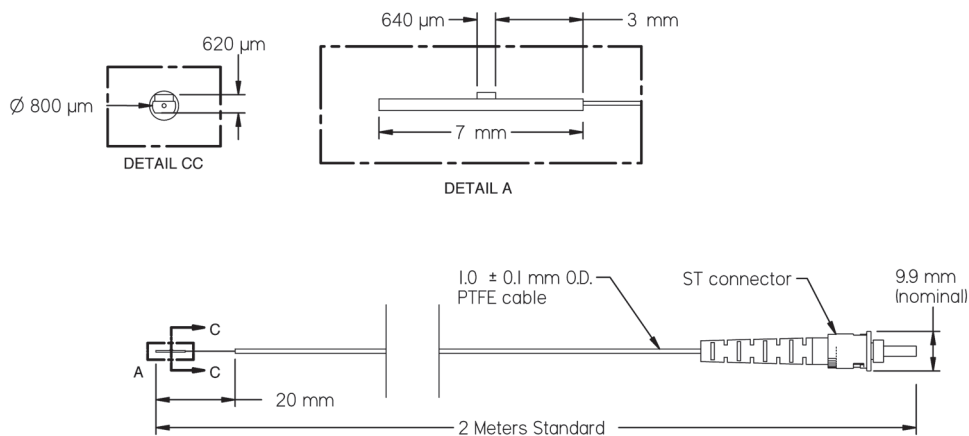
- Aerospace
- Industrial in-situ process monitoring
- Defense
- Metallurgy
- Plastic injection molding & extrusion monitoring

Specifications

Pressure range	0–5, 0–50, 0–150, 0–1000 psi
Resolution ¹	0.1% of full scale
Accuracy ²	±0.5% of full scale
Connector type	ST connector
Operating temperature	–20°C to 150°C (–4°F to 302°F)

1. Signal conditioner dependent.
2. Relative to atmospheric pressure.

FOP-MS Dimensions



Drawing Number SCH-00519