

Flexpoint's Bend Sensor® provides a superior solution for applications requiring accurate measurement and sensing of deflection, acceleration and range of motion.



STANDARD BEND SENSOR

Average Percent Resistance Change

90% Change in resistance when bent around 3" Mandrel
Resistance changes of more than 500% can be achieved using a 5 mil polyester stiffener.

Life Cycle

Greater than 1,000,000 Cycles †
Sensors were bent around a 0.25" radius at 2 cycles per second.

Temperature Range

-35° C to + 85° C †
Indicates the extreme limits of testing. Sensors are operational even outside these limits.

Humidity Range

95% Humidity †
Indicates the extreme limit of testing. Sensors are operational at even higher conditions.

Hysteresis

7% ††

Resolution

Less than 1° of Bend (may be significantly less depending on electronics).

Environments Tested Using Over-laminate

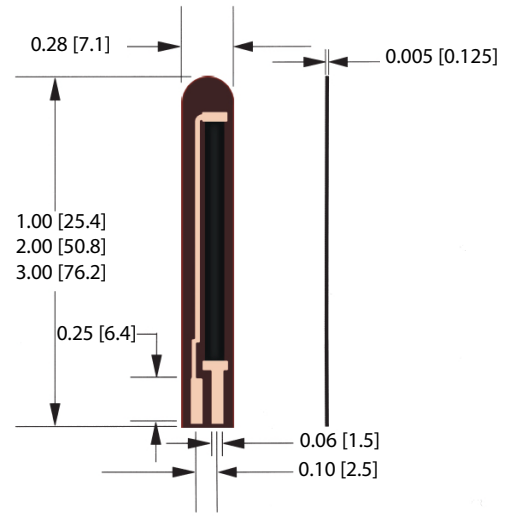
Water, soapy water, ammonia, Cola drink, tea, alcohol.

Voltage

5 VDC to 12 VDC typical

Minimum Bend Radius

Minimum Bend Radius is determined by application requirements and limits of substrate.



SENSOR DIMENSIONS
INCHES [MILLIMETERS]
NOT TO SCALE

The Bend Sensor Advantages:

- Single layer construction**
- No sensor ventilation needed**
- Excellent in harsh environments**
- Durable and Robust**
- Cost-effective**

Bend Sensor comes in 1", 2" and 3" sizes

Part Number	Sensor Length	Resistance	Weight
1000-0101	1.00"	1.5Ω-2.5kΩ	.03 grams
2000-0201	2.00"	6kΩ-10kΩ	.07 grams
3000-0301	3.00"	10kΩ-15kΩ	.11 grams

*Resistance values will be high when using a protective over-laminate.

†Values may drift over a high number of cycles or large changes in temperature and humidity.

††Values may increase and be time dependent when using adhesives.

All values are taken statistically at a 95% confidence level. Specifications are derived from specific laboratory testing conditions. All numbers are given for guidelines only and individual results may vary due to specific application restraints and conditions.

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