

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

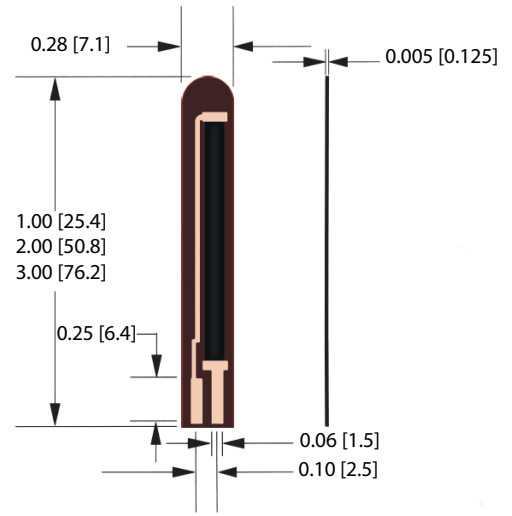
Water, soapy water, ammonia, Cola drink, tea, alcohol.

### 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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