FlexiForce®
A201 Standard Force & Load Sensors

Actual size of sensor

Sensing area

Physical Properties

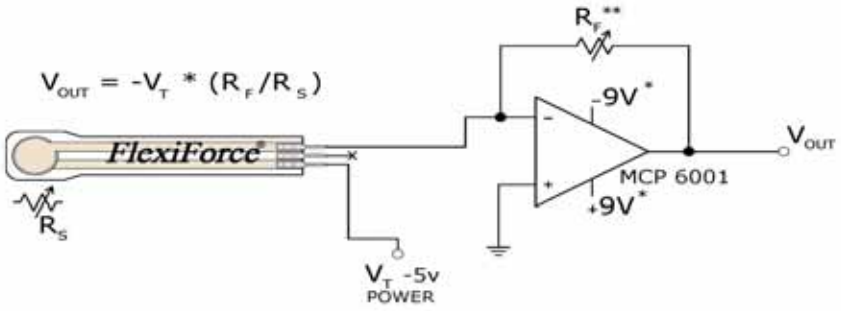
Thickness	0.008" (0.208 mm)
Length	7.75" (197 mm), *optional trimmed lengths*: 6" (152 mm), 4" (102 mm), or 2" (51mm)
Width	0.55" (14 mm)
Sensing Area	0.375" diameter (9.53 mm)
Connector	3-pin Male Square Pin (center pin is inactive)
Substrate	Polyester (ex: Mylar)

Standard Force Ranges (as tested with circuit shown below)

0 - 1 lb. (4.4 N)
0 - 25 lb. (110 N)
0 - 100 lb. (440 N)*

In order to measure forces above 100 lb (up to 1000 lb), apply a lower drive voltage and reduce the resistance of the feedback resistor (1kΩ min.)

Recommended Circuit



- * Supply Voltages should be constant
- ** Reference Resistance R_F is 1kΩ to 100kΩ
- Sensor Resistance R_S at no load is >5MΩ
- Max recommended current is 2.5mA

Typical Performance

Linearity (Error)	±3%
Repeatability	±2.5% of full scale
Hysteresis	< 4.5 % of full scale
Drift	< 5% per logarithmic time scale
Response Time	< 5 µsec
Operating Temperature	15°F - 140°F (-9°C - 60°C)*
Output Change/Degree F	±0.2%/°F (0.36%/°C)

Evaluation Conditions

Line drawn from 0 to 50% load
Conditioned sensor, 80% of full force applied
Conditioned sensor, 80% of full force applied
Constant load of 25 lb (111 N)
Impact load, output recorded on oscilloscope
Time required for the sensor to respond to an input force

*For loads less than 10 lbs, the operating temperature can be increased to 165°F (74°C)

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