



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



## Contact us

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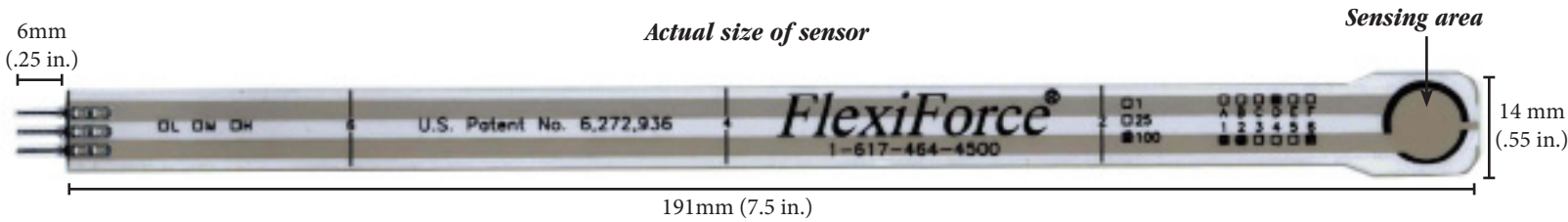
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# FlexiForce®

## Standard Force & Load Sensors Model # A201



### Physical Properties

Thickness	0.203 mm (0.008 in.)
Length	191 mm (7.5 in.)* <i>optional trimmed lengths: 152 mm (6 in.), 102 mm (4 in.), 51 mm (2 in.)</i>
Width	14 mm (0.55 in.)
Sensing Area	9.53 mm (0.375 in.) diameter
Connector	3-pin Male Square Pin (center pin is inactive)
Substrate	Polyester (ex: Mylar)
Pin Spacing	2.54 mm (0.1 in.)

#### ✓ ROHS Compliant

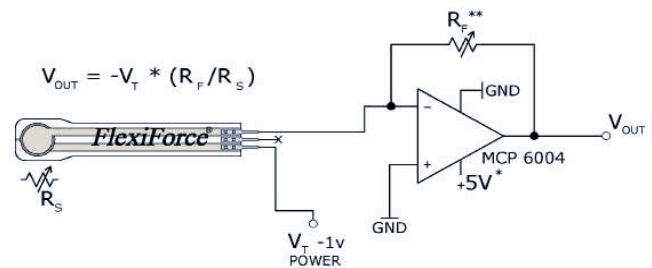
\* Length does not include pins, please add approximately 6mm (0.25 in.) for pin length for a total length of approximately 197 mm (7.75 in.).

### Standard Force Ranges (as tested with circuit shown below)

- 0 - 1 lb. (4.4 N)
- 0 - 25 lb. (111 N)
- 0 - 100 lb. (445 N)

In order to measure forces above 100 lb (up to 1000 lb), apply a lower drive voltage (-0.5 V, -0.10 V, etc.) and reduce the resistance of the feedback resistor (1kΩ min.). Conversely, the sensitivity can be increased for measurement of lower forces by increasing the drive voltage or resistance of the feedback resistor.

#### 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 Evaluation Conditions

Linearity (Error)	< ±3%
Repeatability	< ±2.5% of full scale
Hysteresis	< 4.5 % of full scale
Drift	< 5% per logarithmic time scale
Response Time	< 5μsec
Operating Temperature	-40°F - 140°F (-40°C - 60°C)

\*Force reading change per degree of temperature change = ±0.2%/°F (0.36%/°C)

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*