

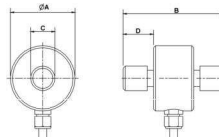
## Force Sensor and Load Cell Specifications

FlexiForce® Sensor



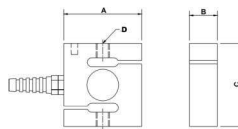
<b>Standard Force Ranges</b>	0-25 lb. (110N) 0-100 lb. (440N)
<b>Thickness</b>	0.208mm
<b>Length</b>	197mm+ (optional trimmed lengths 152mm, 102mm, 51mm)  *Does not include pins, please add 31.75mm for pin length to equal a total length of 203.2mm
<b>Width</b>	14mm
<b>Sensing Area</b>	9.53mm diameter
<b>Connector</b>	3-pin male square pin (centre pin is inactive)
<b>Substrate</b>	Polyester (ex: Mylar)
<b>Pin Spacing</b>	2.54mm
<b>Linearity (error)</b>	< ± 3%
<b>Repeatability</b>	< ± 2.5% of full scale
<b>Hysteresis</b>	< 4.5% of full scale
<b>Drift</b>	< 5% per logarithmic time scale
<b>Response Time</b>	< 5 µsec
<b>Operating Temperature</b>	15°F - 140°F (-9°C - 60°C)

In-Line Load Cell



Capacity	A	B	C	D
0 to 0.5, 1, 2.5, 5 KN	32.0	50.0	M12	15.0
<b>Standard Ranges</b>	0 to 0.5, 1, 2.5, 5 KN			
<b>Safe Overload</b>	50% of full scale with no loss in calibration			
<b>Mass</b>	120g			
<b>Cable</b>	3m flexible grade PVC			
<b>Excitation Voltage</b>	15.0 Vdc maximum			
<b>Sensitivity</b>	2.00 mV / V			
<b>Accuracy</b>	Better than 0.25% full scale			
<b>Thermal Sensitivity</b>	0.0005% full range output / °C			
<b>Input Impedance</b>	350 ohms			
<b>Output Impedance</b>	350 ohms			
<b>Temperature Range</b>	Operating: -10°C to +50°C Storage: -10°C to +50°C			
<b>Humidity Range</b>	Operating: 30% to 75% Storage: 10% to 100%			
<b>Atmospheric Pressure Range</b>	Operating: 500 hPa to 1060 hPa Storage: 500 hPa to 1060 hPa			

S-Beam Load Cell



Capacity	A	B	C	D
0 to 0.5, 1, 2.5, 5 KN	70.0	25.0	75.0	M12
<b>Standard Ranges</b>	0 to 0.5, 1, 2.5, 5 KN			
<b>Safe Overload</b>	50% of full scale with no loss in calibration			
<b>Mass</b>	0 to 0.5, 1, 2.5, 5 KN - 0.35 Kg			
<b>Cable</b>	5000m flexible grade PVC			
<b>Excitation Voltage</b>	15.0 Vdc maximum			
<b>Sensitivity</b>	2.00 mV / V			
<b>Accuracy</b>	Better than 0.25% full scale			
<b>Thermal Sensitivity</b>	0.0005% full range output / °C			
<b>Input Impedance</b>	350 ohms			
<b>Output Impedance</b>	350 ohms			
<b>Temperature Range</b>	Operating: -10°C to +40°C Storage: -10°C to +50°C			
<b>Humidity Range</b>	Operating: 30% to 75% Storage: 10% to 100%			
<b>Atmospheric Pressure Range</b>	Operating: 500 hPa to 1060 hPa Storage: 500 hPa to 1060 hPa			

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Force Sensors and Load Cells



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(img/products/inload1-large.jpg)



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#### Product Description

Biometrics Ltd provide a range of force sensors and load cells that can be easily integrated with the DataLINK and DataLOG data acquisition systems.

FlexiForce® Sensors are paper-thin and flexible, whilst In-Line and S-Beam Load Cells provide complete, ready to go solutions for measurements of load or force.

[Full Specifications](#)

#### FlexiForce® Sensor

The FlexiForce® sensor is a paper-thin and flexible printed circuit, which can be easily integrated with the Biometrics' DataLINK or DataLOG data acquisition systems.

With its ultra-thin construction, flexibility and force measurement ability, the FlexiForce® force sensor can measure force between almost any two surfaces and is durable enough to stand up to most environments.

FlexiForce® sensors are utilized in many applications to:

- Detect and measure a relative change in force or applied load
- Detect and measure the rate of change in force
- Identify force thresholds and trigger appropriate action
- Detect contact and/or touch

#### Load Cells

Biometrics' precision load cells provide a complete, ready to go solution for measurements of load or force.

The load cells are focused to the needs of the researcher, with high precision and ease of use in mind. Designed for general research applications including the fields of medicine, industrial ergonomics and sports science, the load cells make an ideal research and teaching tool when combined with the versatility of the Biometrics' DataLINK or DataLOG data acquisition systems.

By simply interfacing to the Biometrics' DataLINK or DataLOG data acquisition units and utilizing the management and analysis software, load or force may be displayed and analyzed in units of N, Kg or lbs. There is no need to calibrate the load cells each time they are used as this is done during manufacture. The load cells are ready to go, giving accurate readings for both static and dynamic applications.

[In-Line Load Cell](#)

[S-Beam Load Cell](#)

The In-Line range of load cells are designed to be used only for tensile applications. They should only be used in-line and NOT fix end mounted, and may be used in any attitude.

They come standard with a metric male thread at either end to aid with mounting mechanical eyes for looping ropes through.

#### Related Products





Please contact us ([contact-us.htm](#)) for Technical Support, Prices, International Distributors, Software Installation Instructions.

Contact Us

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