

ELF™ System - Specifications & Features

[System Description](#) | [Download Sensor Specs](#)

Physical Properties

Thickness: 0.008" (0.203 mm)
Length: 9.0" (228.6 mm) End-to-end
Width: 0.55" (14 mm)
Active sensing area: 0.375" (9.53 mm) Diameter
Connector: Custom interface to *ELF* Data Acquisition System

Recommended Maximum Force

Sensor	Max. Force (High Gain)	Max. Force (Low Gain)
B201 - L	0 - 1 lb. (4.4 N)	0 - 25 lbs. (111 N)
B201 - M	0 - 25 lbs. (111 N)	0 - 150 lbs. (667 N)
B201 - H	0 - 150 lbs. (667 N)	1 - 1000 lbs. (4448 N)

(Adjustable gain feature of the *ELF* System allows you to set force ranges)

Typical Performance

Linearity (Error): < ±5% (Line drawn from 0 to 50% load)
Repeatability: < ±2.5% of Full Scale (Conditioned Sensor, 80% of Full Force Applied)
Hysteresis: < 4.5 % of Full Scale (Conditioned Sensor, 80% of Full Force Applied)
Drift: <5% / logarithmic time (Constant Load of 90% sensor rating)
Response Time: < 5 µsec (Time required for the sensor to respond to an input force; Impact load - recorded on Oscilloscope)
Operating Temperature: 15°F - 140°F (-9°C - 60°C)*

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

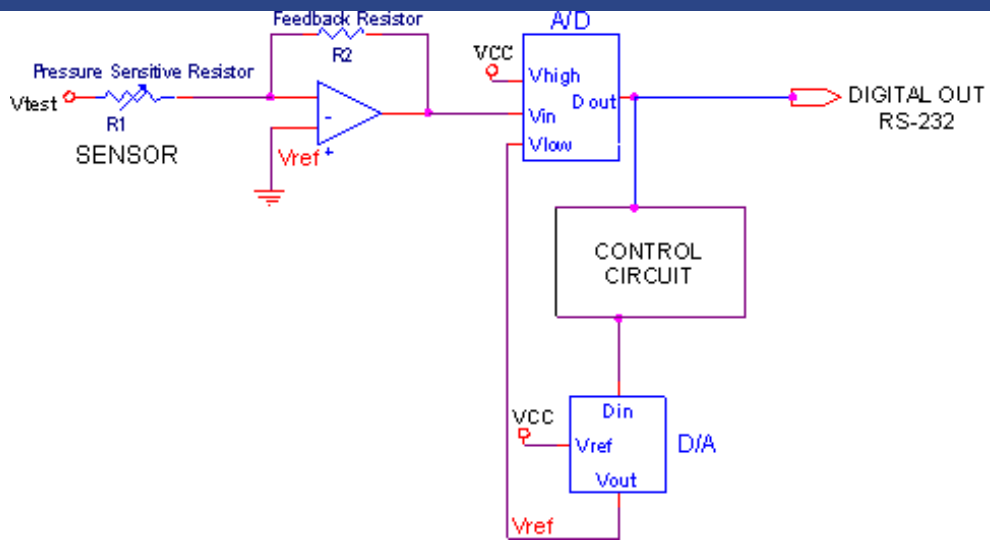
* For loads less than 10 lb., the operating temperature can be increased to 165° F (74° C)

ELF Data Acquisition Electronics

Residing within the plastic *ELF* handle is the data acquisition hardware with USB connection. This patented interface ensures optimal performance of our *FlexiForce* sensors. The simple insertion of a *FlexiForce* sensor yields a powerful measurement tool.

Our patented electronics allow you to optimize the performance of the *ELF* system over a selected force/load range. The electronics adjust the device sensitivity to best fit the dynamic range of the specific application. This allows you to "fine tune" our single element sensors for optimal performance. Designed to be user friendly, simple calibration procedures can deliver accuracies of + 5%. More controlled procedures can reach an accuracy level of + 3%. The *ELF*'s innovative electronics provide high quality signals at distances of up to 30 feet from the PC.





Handle electronics schematic

To Request More Information- [click here](#)

Tekscan, Inc. 307 West First Street. South Boston, MA. 02127-1309, USA
tel: 800.248.3669 / 617.464.4500 fax: 617.464.4266 marketing@tekscan.com

