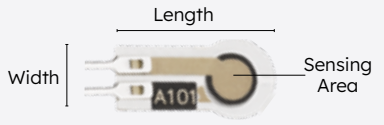
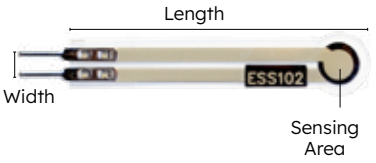
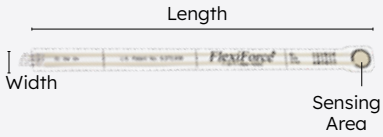
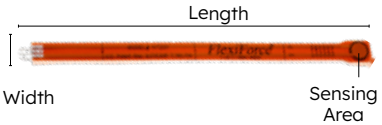
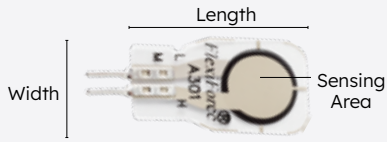
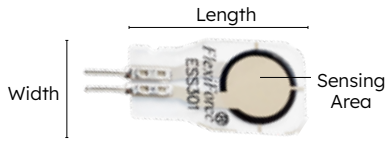
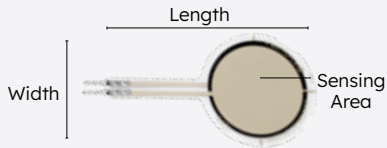
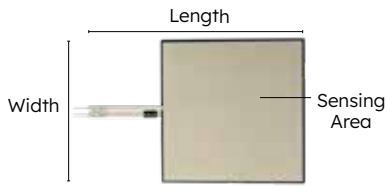
Tekscan™

FlexiForce™ Standard Sensors

Our standard sensor line below features a wide range of sensor sizes, properties, and force ranges. We also offer custom sensor designs to fit your needs. For a custom design, please contact us at +1 (617) 464-4283.

Model #	Image (not to scale)	Physical Properties		Force Ranges Standard	Force Ranges Max
A101		Length Width Sensing Area Thickness Connector	15.6 mm (0.62 in) 7.6 mm (0.30 in) 3.8 mm (0.15 in) diameter 0.203 mm (0.008 in) 2-pin Male Square Pin	18 N (4 lbs)	45 N (10 lbs)
ESS102		Length Width Sensing Area Thickness Connector	38.1 mm (1.5 in) 7.6 mm (0.30 in) 3.8 mm (0.15 in) diameter 0.203 mm (0.008 in) 2-pin Male Square Pin	4 N (1 lb)	44 N (10 lbs)
A201		Length Width Sensing Area Thickness Connector	191 mm (7.5 in) trimmable 14 mm (0.55 in) 9.53 mm (0.375 in) diameter 0.203 mm (0.008 in) 3-pin Male Square Pin (center pin is inactive)	4 N (1 lb) 111 N (25 lbs) 445 N (100 lbs)	45 N (10 lbs) 1,112 N (250 lbs) 4,448 N (1,000 lbs)
HT201 (High-Temp)		Length Width Sensing Area Thickness Connector	191 mm (7.5 in) trimmable 14 mm (0.55 in) 9.53 mm (0.375 in) diameter 0.203 mm (0.008 in) 3-pin Male Square Pin (center pin is inactive)	222 N (50 lbs)	2,224 N (500 lbs)
A301		Length Width Sensing Area Thickness Connector	25.4 mm (1 in.) 14 mm (0.55 in) 9.53 mm (0.375 in) diameter 0.203 mm (0.008 in) 2-pin Male Square Pin	4 N (1 lb) 111 N (25 lbs) 445 N (100 lbs)	45 N (10 lbs) 1,112 N (240 lbs) 4,448 N (1,000 lbs)
ESS301 (Hi-Temp & Humidity)		Length Width Sensing Area Thickness Connector	25.4 mm (1 in.) 14 mm (0.55 in) 9.53 mm (0.375 in) diameter 0.203 mm (0.008 in) 2-pin Male Square Pin	4 N (1 lb)	445 N (100 lbs)
A401		Length Width Sensing Area Thickness Connector	56.9 mm (2.24 in.) 31.8 mm (1.25 in.) 25.4 mm (1 in.) diameter 0.203 mm (0.008 in) 2-pin Male Square Pin	111 N (25 lbs)	31,137 N (7,000 lbs)
A502		Length Width Sensing Area Thickness Connector	81.3 mm (3.20 in.) 55.9 mm (2.20 in.) 50.8 mm (2 in.) 0.203 mm (0.008 in) 2-pin Male Square Pin	222 N (50 lbs)	44,482 N (10,000 lbs)

Refer to the individual sensor data sheets for instructions to adjust force ranges.

ROHS COMPLIANT

Tools to Implement your FlexiForce Sensors

Whether you plan to embed FlexiForce sensors or use for test & measurement purposes, Tekscan offers these products to support your goals.

Test & Measurement

The ELF™ System

The ELF is a complete, cost-effective and user-friendly load and force measurement system. It consists of data acquisition hardware, software (available in high speed measuring up to 6,000 Hz) and three FlexiForce B201 sensors with different force ranges.

Features & Benefits

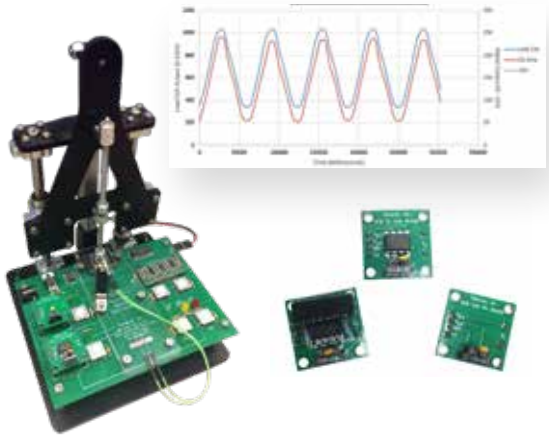
- Patented electronics allow user to optimize the performance of ELF system over a selected force/load range. Electronics will adjust the device sensitivity to best fit the dynamic range of the specific application.
- Simple calibration procedures can deliver accuracies of ± 5%. More controlled procedures can reach ± 3%.
- USB- or WiFi-connected data acquisition electronics are available.
- All FlexiForce A series, ESS, and HT sensors can be connected to the ELF with an extender/adapter.

OEM Development Products

Tekscan offers two FlexiForce Integration Kits to help engineers test and evaluate FlexiForce Sensors for their embedded product or device. These include:

The FlexiForce Sensor Characterization Kit

- An all-in-one testing fixture to help collect baseline sensor performance in a controlled loading environment
- Includes three (3) interchangeable analog circuit modules to quickly test sensors under different circuitry
- Test interfacing materials with pre-programmed loading profiles in open-source software:
- Linearity, hysteresis, drift, repeatability
- Use with any FlexiForce Standard Sensor model, except the A101



The FlexiForce Prototyping Kit

- A compact, plug & play kit to help engineers and designers progress smoothly through later integration phases
- Begin collecting data in minutes!
- Test with different circuitry and make sensitivity adjustments with ease
- Use with any FlexiForce Standard Sensor, except the A101

FlexiForce Load Concentrators (or "Pucks") are used to evenly distribute force across a FlexiForce sensor's sensing region, helping you optimize sensor linearity and repeatability.

617.464.4500 **1.800.248.3669** **info@tekscan.com** **tekscan.com**

Sensor Datasheet
SD_Rev F_121724

Contact us for more information.
Volume discounts available.