

# FlexiForce<sup>™</sup> 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.

lmage				Force Ranges	
Model #	(not to scale)	Phy	sical Properties	Standard	Max
A101	Length Sensing Area	Width 7 Sensing Area 3 Thickness 0	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)
A201	Length    Service   Common   FlexiForce   Service   Service	Length 1 Width 1 Sensing Area 9 Thickness 0	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 lb) 1,112 N (250 lbs) 4,448 N (1,000 lbs)
HT201 (High- Temp)	Length    FlexiForce   MM Company   Midth    Sensing   Area	Width 1 Sensing Area 9 Thickness 0	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	Width Length Sensing Area	Width 1 Sensing Area 9 Thickness 0	25.4 mm (1 in.) 4 mm (0.55 in) 2.53 mm (0.375 in) diameter 2.203 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)	Width Length Sensing Area	Width 1 Sensing Area 9 Thickness 0	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	Width Sensing Area	Width 3 Sensing Area 2 Thickness 0	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	Width Sensing Area	Width 5 Sensing Area 5 Thickness 0	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.

# Tools to Implement your FlexiForce Sensors

Whether you plan to use your FlexiForce sensors for Test & Measurement or Embedding purposes, Tekscan offers these products to help accomplish the goals of your project.

## **Test & Measurement**



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.

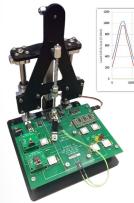
#### **FEATURES & BENEFITS**

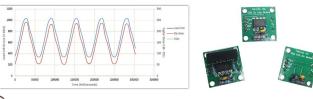
- Patented electronics allow user to optimize the performance of ELF system over a selected force/load range. Electronics will adjust the device sensitivity to best fit the dynamic range of the specific application.
- Simple calibration procedures can deliver accuracies of ± 5%. More controlled procedures 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
- 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 model, except the A101

## The FlexiForce Prototyping Kit





We also offer peel-and-stick FlexiForce Load Concentrators (or "Pucks") from our online store! These delrin pucks are used to evenly distribute force across a FlexiForce sensor's sensing region, helping you optimize sensor linearity and repeatability.



### GETTING STARTED WITH FLEXIFORCE SENSORS

FlexiForce sensors are available off-the-shelf to meet your testing, prototyping, and product integration needs. They are available in our online store and can be purchased at a discount for large quantities. Visit our online store at www.tekscan.com/store to place an order today.

### SENSOR CUSTOMIZATION IS AVAILABLE!

For more information about custom sensors, please consult with one of our engineers, email info@tekscan.com or call toll-free 1.800.248.3669 (inside US) or dial +1.617.464.4283 (international).

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