

## FlexiForce<sup>®</sup> – Localized Pressure Measurement for Noraxon cable and telemetry systems

- Measure pressure force between body and external surfaces, tools, machines
- Very thin and flexible sensor construction
- Available in three pressure ranges
- Uses Standard Noraxon Plug-In Capability



### Product Overview

The sensor manufactured by TekScan Inc., USA is a versatile, easy to use sensor for localized pressure. It can be used whenever pressure force between the human body, (e.g. hand, finger and foot) and any surface is investigated. The use of industrial tools, training machines, computer devices (PC mouse) or medical orthosis can be investigated together with EMG and other biomechanical sensors.

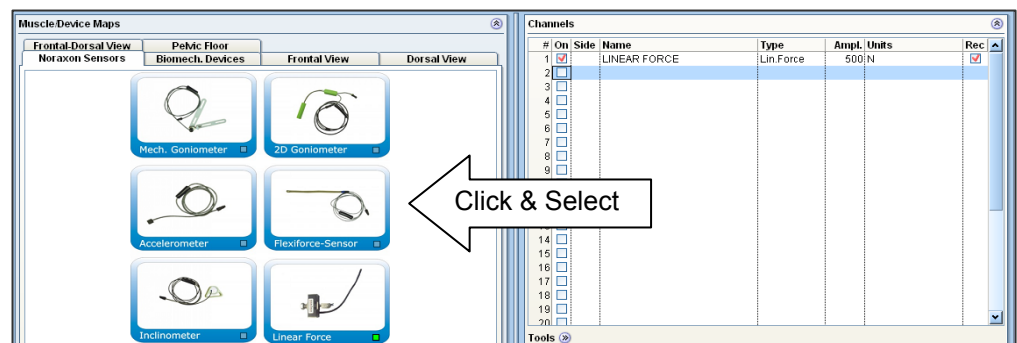
### Thin and flexible construction

The FlexiForce<sup>®</sup> sensor works on a resistive principle and is available in three pressure ranges and four lengths.

It has a sensitive measurement area of 9.53 mm diameter and is very thin and flexible to conform to curved surfaces.



The sensor has a predefined measurement setup in all the Noraxon software packages and is operational in a few seconds:



MyoResearch XP sensor selection screen

## Application Examples

The sensor covers a variety of application areas in medical research, sports analysis, rehabilitation, ergonomics, and robotics. Due to the thin flexible shape, it can be mounted on fingertips, hand bones, toe, heel or any other prominent bony body area.



FlexiForce mounted to the heel, suitable for gait studies, impact testing jump and sports performance

FlexiForce mounted to hand bones, allows detecting of hand and grip pressure force.



FlexiForce mounted on a golf club. Measures the grip/swing force with golf stroke



## Specifications

### Features:

- Thin flexible sensor that is easily placed on a prominent bony body part
- Useful in a variety of research areas including: Rehabilitation, Sports, Ergonomics and Robotics.

### Physical (sensor only):

- Thickness: 0.008" (0.208mm)
- Sensing Area Diameter: 0.375" (9.53mm)
- Tail Length: 7.75" (197mm), 6" (152mm), 4" (102mm), 2" (51mm)
- Width: 0.55" (14mm)

### Typical Performance of sensor:

- Linearity (Error):  $\leq \pm 5\%$
- Repeatability:  $\leq \pm 2.5\%$  of full scale
- Hysteresis:  $< 4.5\%$  of full scale
- Response Time:  $< 5 \mu\text{sec}$
- Sensitivity (uncalibrated)
  - 0-1 lb sensor 5000 mV / lb (1135 mV/N)
  - 0-25 lb sensor 200 mV / lb (45 mV/N)
  - 0-100 lb sensor 50 mV / lb (11.4 mV/N)