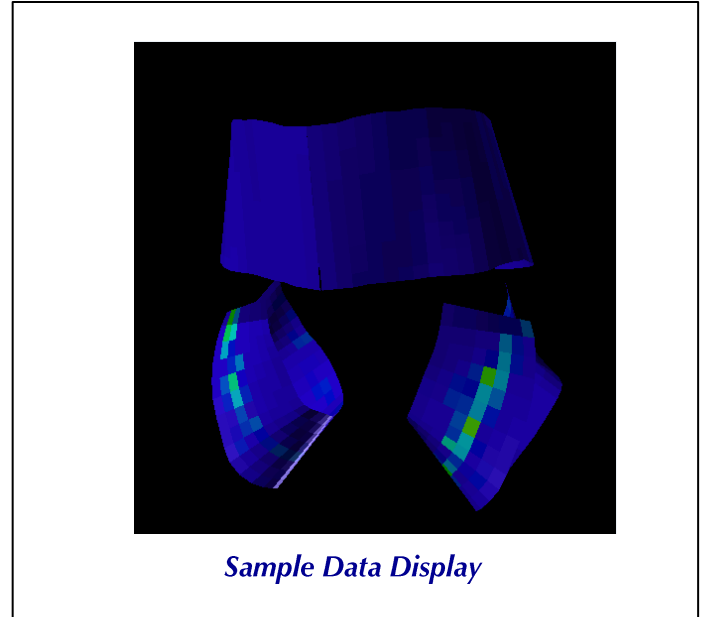




Stretchable TactArray System



Sample Data Display

PRODUCT OVERVIEW

TactArray Systems capture pressure distribution between two objects in direct physical contact. By placing TactArray sensors between objects, wrapping them around shapes, or applying them to a flat surface, product developers and researchers can measure and visualize pressure information in their applications.

For increased flexibility, PPS offers the **Stretchable TactArray System**. Engineered from extremely soft and conductive silver-metalized Lycra, the **Stretchable TactArray** sensors can stretch to 10% with negligible baseline shift.

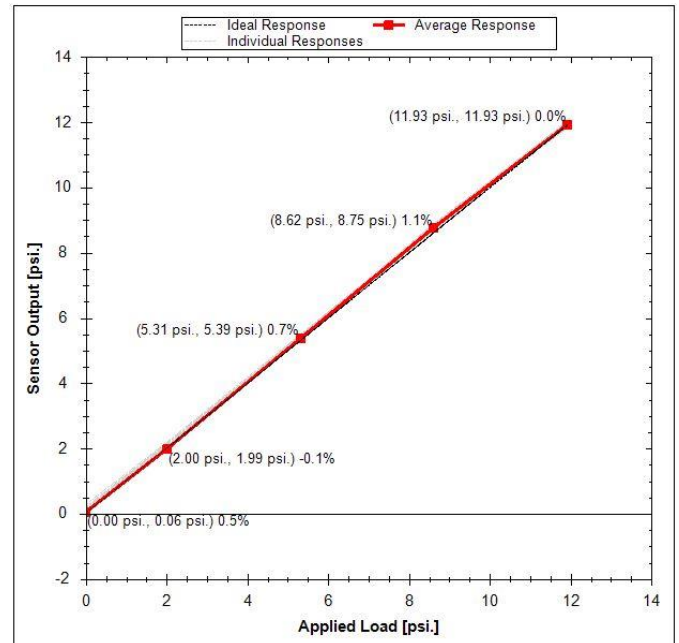
PPS’s **Stretchable TactArray** sensors accommodate bending, flexing, and stretching surfaces. As a result of this flexibility, these stretchable sensors are ideal for applications in which they are embedded into objects that are going to be deformed slightly through use, such as a seat, cushion or tight clothing.

KEY SYSTEM FEATURES AND BENEFITS

- **High-performance array sensor** constructed with advanced conductive cloth material allows for conformability and stretch-ability to allow natural seating. This allows the sensors to be incorporated into the application without altering the characteristics of support surface.
- **Highly sensitive and repeatable tactile sensors** used in the product while data quality is not compromised even on curved surfaces.
- **High performance capacitive sensing** technology saves time and improves results by significantly reducing recalibration and repeated tests allowing developers to resolve problems and answer questions faster.
- **Chameleon Visualization Software** provides intuitive, easy to use, high-quality visualization and easy access to data for analysis and export to other applications.

SENSOR CHARACTERISTICS AND PERFORMANCE¹²

Pressure Range	10 or 30 PSI
Pressure Sensitivity	0.4%
Signal to Noise Ratio (SNR)	300:1
Repeatability Error	0.3%
Linearity	99.8%
Accuracy Error ³	<=2%
Contact Surface Material	Spandex
Sensor Thickness	0.12 in (3 mm)
Cable Length	59 in (1.5m)
Operating Temperature	-20°C to 50°C



ELECTRONICS SPECIFICATIONS

Sample Rate	7-10 KHz element to element
Computer Interface	USB 2.0
ADC Resolution	12 bit
Input Voltage	5V
Input Power	2W
Enclosure Size	6.5x6.2x1 in. (16.5x15.8x2.5 cm)
Weight	1.43 lbs. (650 g)

SYSTEM COMPONENTS

- One Stretchable TactArray Sensor of chosen design
- T4500 signal conditioning electronics with USB 2.0
- Chameleon Visualization and Data Acquisition Software
- Synchronized video capture function and hardware
- Remote Installation and Training

¹ Performance numbers are for typical system response. Actual performance may vary.

² There are multiple stretchable sensor designs that are offered as part of PPS product catalog.

³ Measured using PPS standard calibration and test equipment – includes repeatability errors, noise and linearity.