

**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.

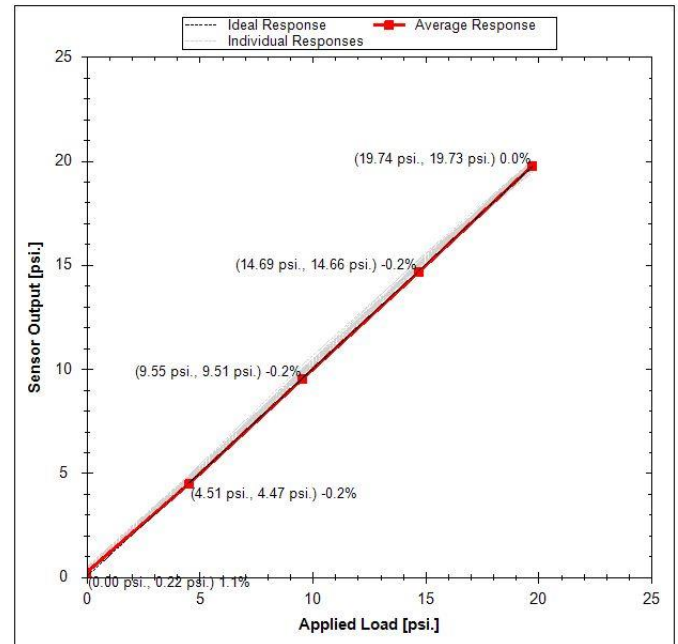
PPS's *Hybrid TactArray Systems* combine the best of both material worlds. Designed for use in low-to-moderate pressure ranges, *Hybrid TactArray* sensors leverage the benefits of both cloth and Polyimide.

*Hybrid TactArray* sensors consist of a flexible or rigid Polyimide circuit board base with a cloth upper electrode and are best suited for use either in very complex designs or in designs that require the sensor to be integrated into a product.

**KEY SYSTEM FEATURES AND BENEFITS**

- **Highly sensitive, flexible-material sensors** with stable and repeatable sensor output that can be used even on curved surfaces without compromising data quality.
- **Sensors combine both cloth and Polyimide material worlds** making them ideal for use in low-to-moderate pressure ranges and in either very complex designs or in designs that require the sensor to be integrated into a product.
- **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 PERFORMANCE <sup>12</sup>	
Pressure Range	3, 20 or 100 PSI
Pressure Sensitivity	0.2%
Signal to Noise Ratio (SNR)	700:1
Repeatability Error	0.5%
Linearity	99.8%
Accuracy Error <sup>3</sup>	<=2%
Contact Surface Material	Polyimide and Cloth
Sensor Thickness	0.02 in (0.5 mm)
Cable Length	59 in (1.5m)
Operating Temperature	-20°C to 100°C



ELECTRONICS SPECIFICATIONS	
Sample Rate	7-10Khz 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 Hybrid 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

<sup>1</sup> Performance numbers are for typical system response. Actual performance may vary.

<sup>2</sup> There are multiple hybrid sensor designs that are offered as part of PPS product catalog.

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