

Stretchable TactArray Sensors Pressure Measurement for Dynamic Surfaces



A Stretchable TactArray Sensor

Stretchable TactArray Sensors

Pressure Profile Systems' Stretchable TactArray Sensors (STS) offer the ability to stretch up to 10% without degrading sensor performance. This unique feature makes this sensor ideal for applications where the object of interest must be deformed during use. STS sensors can accommodate up to 10,240 sensing elements. They are compatible with PPS's TactArray line of signal conditioning electronics and can be customized to most shapes.

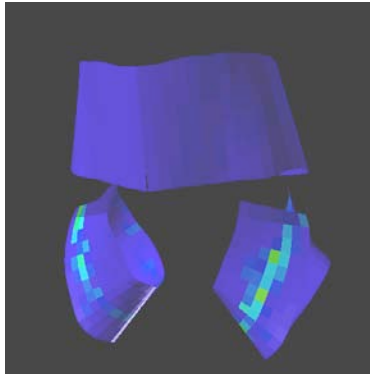
TactArray System:

Each TactArray system includes one sensor with 1.5 m cable, USB drive/interface electronics, power supply and cables, and real-time visualization & acquisition software

The software displays pressure array data in 3D mesh or multi-color grid formats for both real-time viewing or playback of recorded data. Data is stored in ASCII-delimited format for easy exporting. Custom 3D scanning is available so that pressures can be shown on the actual shape to which the sensors are bonded

System Options:

- Strobe output for synchronizing other DAQ equipment
- API for custom software development (Windows DLL)
- USB communication protocol for custom driver development
- Contact PPS for pricing information. Academic discounts are available.

Specifications		Sample Output:
Max Pressure Range	0-50 psi (0-3,500 kPa)	
Dynamic Range	300:1	
Standard Resolutions	10mm, 25mm	
Active Area	Up to 16" x 20"	
Thickness	3 mm	
Temperature Range	-20° to 50°C	
Number of Elements	Up to 10,240	
Element-to Element Scan Rate	5 kHz	
ADC Resolution	12-bit	
Computer Interface	USB	