

Foot Pressure Measurement Sensor



Being used by World Champion Surfer

PRODUCT OVERVIEW

PPS's *Foot Pressure Mapping System* measures and analyzes pressure distribution on a person's foot for research and product development applications.

The *Foot Pressure Mapping System* was designed for footwear or orthotic designers, researchers in gait analysis, diabetic foot complications, or other disciplines interested in the pressure distribution on the foot. The system can measure and analyze pressure distribution on a person's foot during any sort of stationary or ambulatory action in real-world conditions.

PPS's *Foot Pressure Mapping System* captures and visualizes quantitative, sensitive pressure data in real time over a wireless interface for minimally-invasive measurements in real-world conditions.

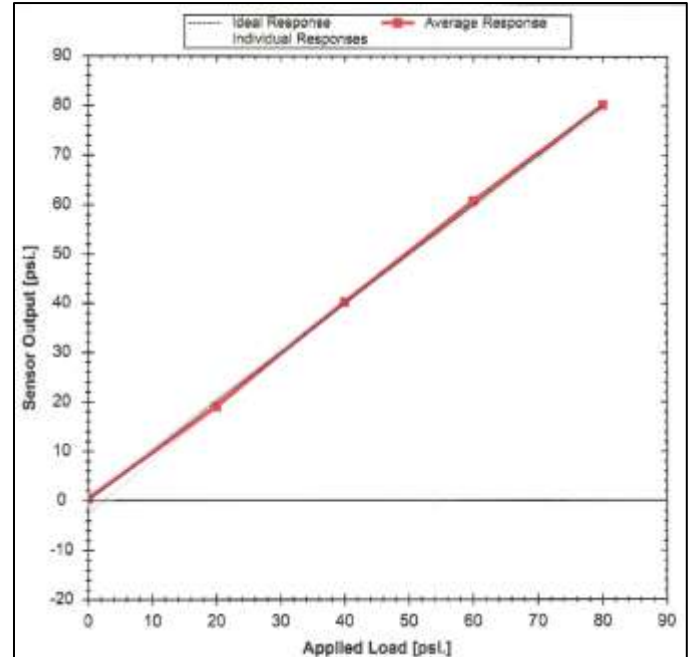
Flexible, sensitive sensors integrate easily with footwear and provide industry-leading, quantitative data with excellent repeatability and sensitivity.

KEY SYSTEM FEATURES AND BENEFITS

- *Highly sensitive and repeatable tactile sensors* featuring 25 sensing elements to provide sensitive and repeatable data for accurate research and optimized product design.
- *Flexible design integrates easily into footwear or existing insole material* allowing data capture without artificially modifying the natural actions of the test subject.
- *Compact wireless Bluetooth electronics* provides simple and easy to use set up with minimal wires to encumber use.
- *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 MODELS		
Model Number	5816	5859
Shoe Size	US Men Shoe Size 6-7	US Women Shoe Size 4.5-6
Element Count	25	25
Spatial Resolution	168-265 sq.mm	137 – 216 sq.mm

SENSOR CHARACTERISTICS AND PERFORMANCE ¹	
Pressure Range	80 PSI
Pressure Sensitivity	0.2%
Signal to Noise Ratio (SNR)	500:1
Repeatability Error	< 1%
Linearity	99%
Accuracy Error ²	<=4%
Contact Surface Material	Cloth & Polyimide
Sensor Thickness	0.2 in (0.5 mm)
Cable Length	59 in (1.5m)
Operating Temperature	-20°C – 100°C



ELECTRONICS SPECIFICATIONS	
Sample Rate	50Hz
Computer Interface	Bluetooth
ADC Resolution	12 bit
Input Voltage	5V
Input Power	2W
Enclosure Size	3x1.5x0.5 in. (75x40x12.8 cm)
Weight	0.12 lbs. (55g)

SYSTEM COMPONENTS

- Pair of foot sensors of chosen size integrate easily with your footwear
- Rechargeable D710 electronics interface module with Bluetooth connectivity
- Chameleon Visualization and Data Acquisition Software
- API Library & Documentation
- Remote Installation and Training

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

² Measured using PPS standard calibration and test equipment – includes repeatability errors, noise and linearity