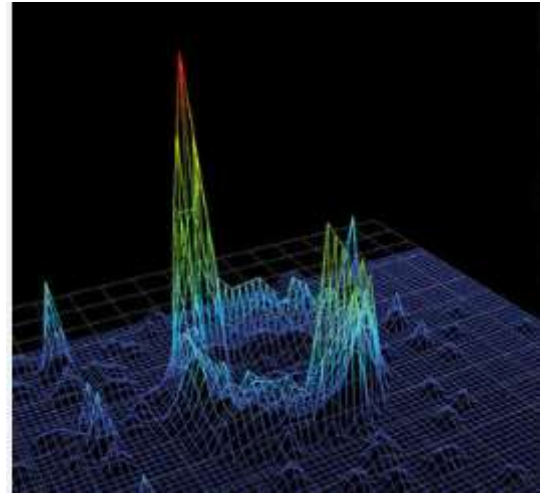




*Spray Pressure Sensing System*



*Sample Data Display*

## PRODUCT OVERVIEW

PPS's *Spray Pressure Sensing System* measures and visually represents the spray distribution onto a surface via the impact pressure generated by spray particles.

Manufacturing and Process engineers who are working with spray processes can now visualize and quantify a spray pressure impact on a surface. The Spray Pressure Sensor System provides precision, real-time measurement to help eliminate the guesswork and speed up development time.

Many spray process requirements are met only through "trial and error", meaning numerous adjustments to achieve a desired result. This can slow development time and productivity.

PPS's *Spray Pressure Sensing System* addresses this problem. Unlike other spray sensor systems, PPS spray pressure sensor has no minimum detection threshold and can detect pressures as small as 10 Pa, enabling ultra-fine resolution capture of spray pressure patterns.

## KEY SYSTEM FEATURES AND BENEFITS

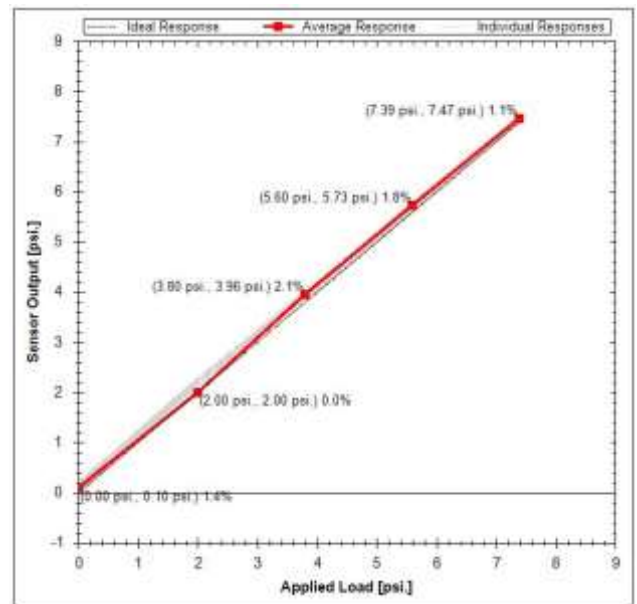
- *High resolution array sensor* capable of measuring the pressure impact against the surface and provide spray data to shorten development time and improve the quality and cost of products and processes.
- *Waterproofed sensors* provide a solution for any spray process conditions.
- *Highly sensitive tactile sensors* allow customers to quantify spray pressure data even in extremely low pressure applications.
- *System can measure low and high pressures* allowing PPS spray sensing system support all spectrum of spray process applications.
- *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	5491
Total Sensor Area	250mm x 260mm
Active Sensing Area	192mm x 160mm
Element Count	1920 (48x40)
Spatial Resolution	4mm x 4mm
Sensor Thickness	7.6mm

## SYSTEM COMPONENTS

- One Waterproofed Spray Pressure Sensor mounted on a substrate
- USB 2.0 interface
- Chameleon Visualization and Data Acquisition Software
- Synchronized video capture function and hardware
- Remote Installation and Training

SENSOR CHARACTERISTICS AND PERFORMANCE <sup>1</sup>	
Pressure Range	3 or 20 PSI
Pressure Sensitivity	0.2%
Signal to Noise Ratio (SNR)	500:1
Repeatability Error	0.5%
Linearity	99.8%
Accuracy Error <sup>2</sup>	<=3%
Contact Surface Material	Cloth & Polyimide
Cable Length	59 in (1.5m)
Operating Temperature	-5°C to 85°C



ELECTRONICS SPECIFICATIONS	
Sample Rate	200Hz
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)

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

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