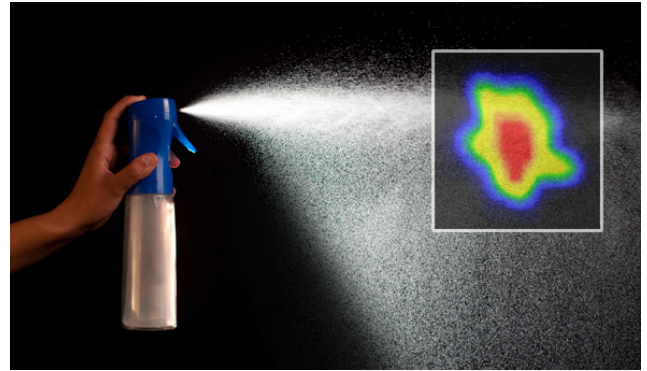


Spray Pressure Sensing System



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

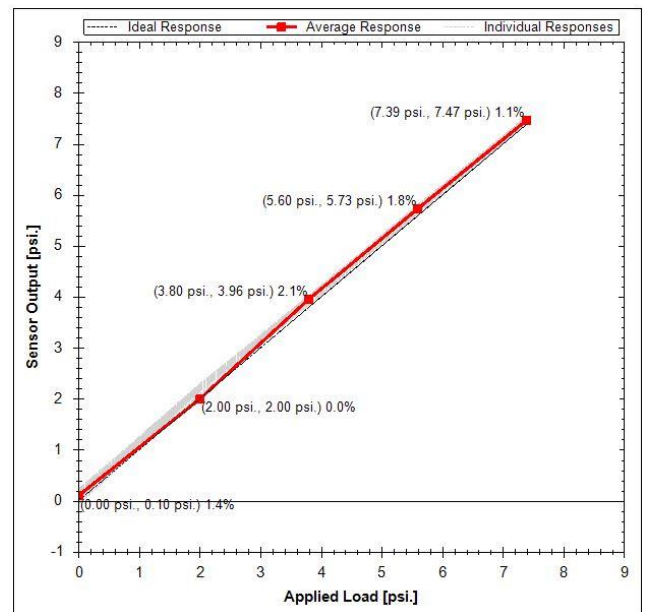
- **High resolution array sensor** capable of measuring the pressure impact against the surface and provide spray data to shorten development time and improve the quality and cost of products and processes.
- **Waterproofed sensors** provide a solution for any spray process conditions.
- **Highly sensitive 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	4768	6425	5218	6201	6331
Total Sensor Area	250x260 mm	62x81 mm	80x80 mm	176x176 mm	330x250 mm	300x400 mm
Active Sensing Area	192x160 mm	50x64 mm	64x64 mm	160x160 mm	280x200 mm	380x280 mm
Element Count	1920 (48x40)	800 (25x32)	1024 (32x32)	1024 (32x32)	560 (28x20)	1,024 (32x32)
Spatial Resolution	4x4 mm	2x2 mm	2x2 mm	5x5 mm	10x10 mm	11.88 x 8.75mm
Sensor Thickness	7.6mm	0.5mm	1mm	1mm	3mm	3mm

SENSOR CHARACTERISTICS AND PERFORMANCE¹

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 ²	<=3%
Contact Surface Material	Cloth & Polyimide
Cable Length	59 in (1.5m)
Operating Temperature	-5°C to 85°C



ELECTRONICS SPECIFICATIONS

Sensor Models	3228 & 5491	All other Sensor Models
Sample Rate	40-220Hz	10-100Hz
Computer Interface	USB 2.0	USB 2.0
ADC Resolution	16 bit	12 bit
Input Voltage	5	5V
Input Power	2W	2W
Enclosure Size	NA	6.5x6.2x1 in. (16.5x15.8x2.5 cm)
Weight	NA	1.43 lbs. (650 g)

SYSTEM COMPONENTS

- One Waterproofed Spray Pressure Sensor mounted on a substrate
- Signal conditioning electronics or USB 2.0 interface
- 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 Measured using PPS standard calibration and test equipment – includes repeatability errors, noise and linearity