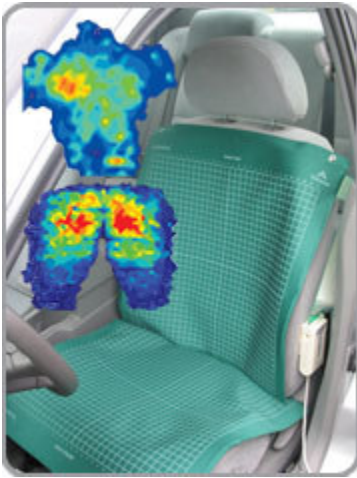




Body Pressure Measurement System (BPMS™)



BPMS measures the pressure distribution of a human body on support surfaces such as seats, mattresses, cushions, and backrests. The system includes hardware, software, and thin-film pressure sensors (mats). The mats feature spatial resolutions as high as one sensing element/cm² and contains as many as 2016 individual sensing elements per sensor.

The mats' thinness enables the user to confidently incorporate the sensor into the application without altering the characteristics of the support surface. The combination of these factors enables precise measurement of the location and magnitude of peak pressures and overall pressure distribution patterns.

BPMS is built on a "modular" sensor construct concept. This means you can acquire a system in many ways from one sensor up to eight. This allows you to grow your *BPMS* as your needs expand, thus protecting your initial investment.

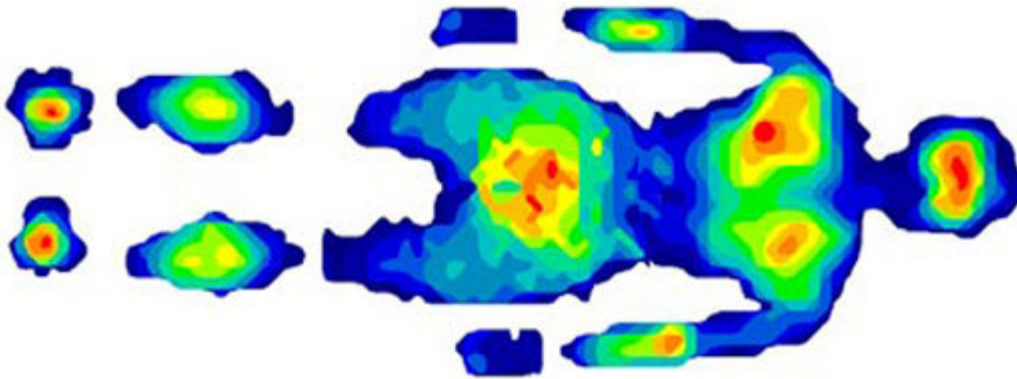
2 Mat system on auto seat

Applications:

- Support Surface Design
 - Amount of padding
 - Shape of seat or backrest
 - Contours of seat or backrest
 - Dimensions of seat
 - Firmness
- [Automotive Driver Seat Design](#)
- Hospital & Home Mattress Design
- Material Testing
- Comfort Analysis
- Longevity Studies
- Ingress/Egress Studies
- Psychology Studies

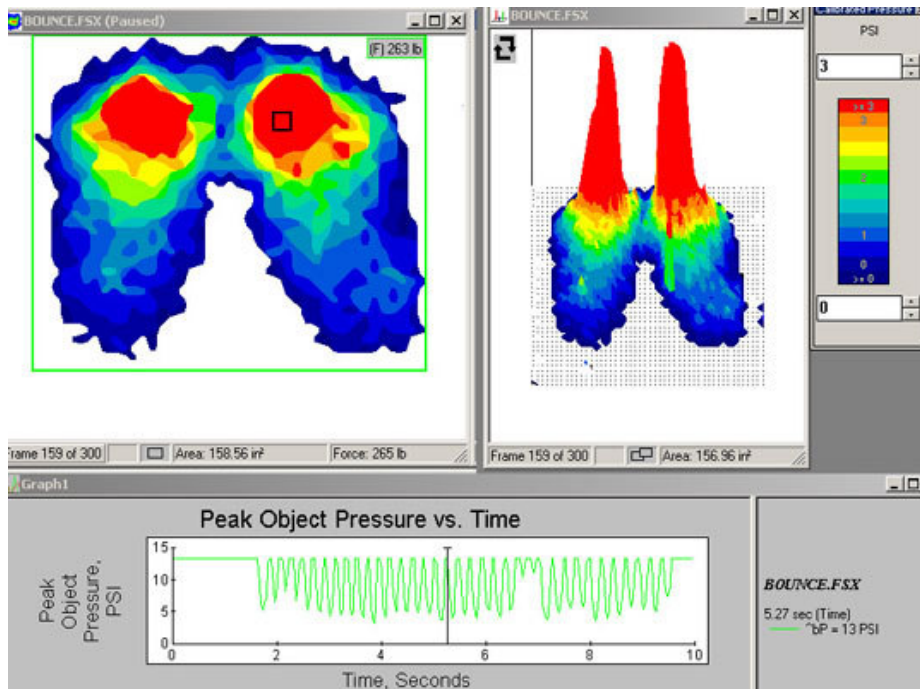


2 Mat system on office chair



Output of subject lying on a 2-sensor mat configuration (sensor model 5400N). The high spatial resolution of the sensor allows you to measure and display the high pressure areas (in red) as the subject is lying down.

Body Pressure Measurement System (BPMS™) Features



Car seat test: Pressures caused during driving when vehicle bounces. 2-D and 3-D views of Peak Pressure, with graph of Peak Pressure vs. Time.



Software Features

- Capture dynamic pressure
- Record pressure output
- Play-back pressure "movies"
- Display real-time and recorded data as 2-D and 3-D images
- Display of pressure and force curves over time
- Export ASCII file capability
- Display data frame-by-frame, single, and/or multi-frame
- Isolate and analyze specific regions
- Display Center of Force and its trajectory
- View and compare multiple tests simultaneously
- And much, much, more!

Data Acquisition Electronics and Sensor to PC Interface

Every Tekscan Industrial system, including *BPMS™*, uses a specially designed sensor interface electronic called a "handle". The handle connects to the sensor, gathers the data from the sensor, and then processes and sends this data to your computer. The handle also connects to an interface on your PC. Tekscan offers a variety of PC interfaces including USB, parallel and PCI boards. Each interface product embodies sophisticated microprocessor based circuitry to control scanning sequence and frequency, adjust sensitivity, and optimize the performance of our sensors.

Sensor Options					
Sensor Model	# of Mats	Sensing Area	# of Sensing Elements	Spatial Resolution	Pressure Range
#5315	1	488 mm x 427 mm (19.2 in. x 16.8 in.)	2,016	6.25 sensels/in ² (1 sensel/cm ²)	0-250 mmHg (0-5 PSI)
	2	976 mm x 427 mm (38.4 in. x 16.8 in.)	4,032		
	4	1,952 mm x 427 mm (76.8 in. x 16.8 in.)	8,064		
	8	1,952 mm x 854 mm (76.8 in. x 33.6 in.)	16,128		
#5330	1	471mm x 471 mm (18.56 in. x 18.56 in.)	1,024	3.0 sensels/in ² (0.5 sensel/cm ²)	0-250 mmHg (0-5 PSI)
	2	943 mm x 471 mm (37.12 in. x 18.56 in.) <i>(*For use with USB handle only)</i>	2,048		
#5350	1	417 mm x 386 mm (16.4 in. x 15.2 in.)	1,558	6.25 sensels/in ² (1 sensel/cm ²)	0-250 mmHg (0-5 PSI)
	2	834 mm x 386 mm (32.8 in. x 15.2 in.)	3,116		
	4	1,668 mm x 386 mm (65.6 in. x 15.2 in.)	6,232		
	8	1,668 mm x 772 mm (65.6 in. x 30.4 in.)	12,464		
#5400N	1	578 mm x 884 mm (22.7 in. x 34.8 in.)	1,768	2.23 sensels/in ² (0.35 sensel/cm ²)	0-200 mmHg (0-4 PSI)
	2	578 mm x 1,768 mm (22.7 in. x 69.6 in.)	3,536		
	3	1,734 mm x 884 mm (68.1 in. x 34.8 in.)	5,304		
	4	2,312 mm x 884 mm (90.8 in. x 34.8 in.)	7,072		

Model [5315](#)

Model [5330](#)

Model [5350](#)

Model [5400N](#)



Add-On Capabilities

Tekscan systems provide the flexibility of adding on capabilities as your needs evolve to enhance data analysis and interpretation. Please ask us about any of the add-on options to the *BPMS*[™] system listed below:

Wireless Capability - Enables a wireless connection between your sensor/handle and your PC allowing for ultimate flexibility in data acquisition.

Virtual System Architecture[™] (VSA) - Larger areas are easily accommodated with our *VSA* software solution. *VSA* allows you to view multiple sensors, positioned adjacent to one another, creating a continuous measurement region.

[Video Synchronization[™]](#) - Video sequences can be recorded and synchronized with your pressure data and visualized in Tekscan software, enhancing the utility of collected data.

[Equilibration/Calibration Devices](#) - Available in various pressures to normalize sensor output, used for equilibration and calibration.

Vacuum Calibration Devices - For use with [5330](#) sensor and [5400N](#) sensor. Device applies a uniform pressure to the active area of the sensor to normalize output of each sensing element. The system electronically compensates for variation in individual sensing elements.

PCI Card/Handle - In place of standard USB hardware. Provides sampling up to 127 Hz.