XSENSOR | Intelligent Dynamic Sensing

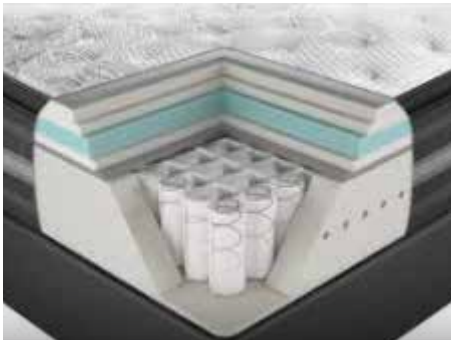
Evidence-Based Design with the X3 Mattress R&D System

Mattress design is a complex craft.

The science and art of using new technologies and combinations of materials has added to the challenge of evaluating and validating clinical surfaces and mattress designs.

XSENSOR's X3 Mattress R&D system was specifically engineered to meet the unique needs of mattress designers. We developed this platform to complement your design process and help you create the best possible product. There is a reason the world's top mattress manufacturers use the X3 system to evaluate and verify the safety, durability, comfort, and support of new mattress concepts, designs, and prototypes.

Whether you are designing consumer mattresses, advanced hospital beds, or surgical surfaces, the X3 Mattress R&D system is the tool you need to analyze and validate the safety and comfort of your products.



- **Design high-quality mattresses using detailed body pressure, support, and position data.**
- **Use powerful visualizations to understand pressure points, support, and comfort.**
- **AI-powered data analysis provides design validation and performance insights for sleep and clinical bed surfaces.**

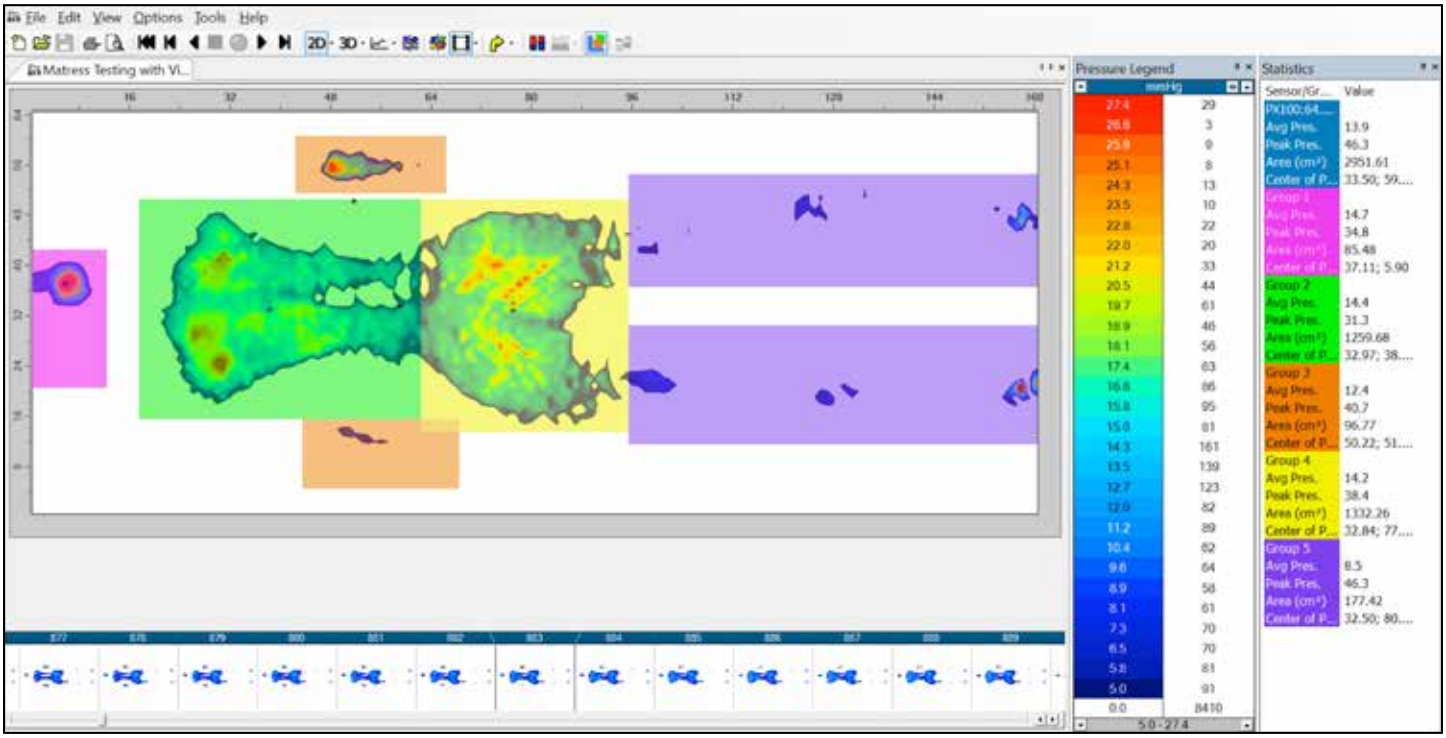
Leading-edge design supported by Intelligent Dynamic Sensing provides unparalleled insight into performance of materials and validation of mattress design.

Have confidence in your mattress designs.

Give yourself peace of mind and use the most advanced pressure imaging system available for mattress design. For accuracy, calibration, stability, conformability, image quality, and durability, our high-resolution sensors and powerful software platform gives you the assurance your designs are effective.

The X3 Mattress R&D system delivers the most detailed data, statistics, and visualizations possible for you to compare, validate, and continuously improve your designs for better pressure relief and support.

The Best Full-Body Pressure Mapping System for R&D in the Industry



Collect reliable, accurate, and repeatable pressure data using XSENSOR's Intelligent Dynamic Sensing technology.

High-Resolution

Our pressure sensor provides superior, high-resolution images of the body's surface and pressure points.

Flexibility

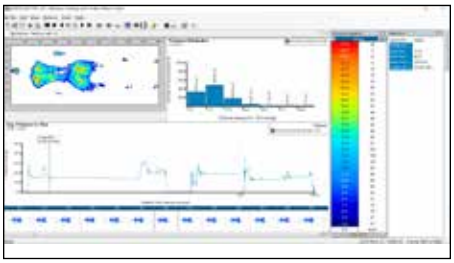
The pressure sensor is made of ultra-flexible material designed to conform to the full body, delivering accurate calculations of mattresses and mattress components.

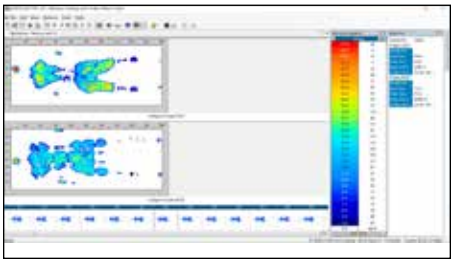
Reliability

Composed of high-quality materials, the sensor pad and electronics are durable and responsive enough to meet the demands of mattress testing. The sensor's performance is optimized to ensure low hysteresis and creep.

High-Accuracy

High-resolution mattress sensors provide consistent data and the pressure range of 0.2-4 psi delivers accuracy ± 10% full-scale. There are 10,240 sensing points with a 0.5 in (12.7 mm) pitch (resolution). Each sensor is calibrated to 5–100 mmHg or 10–200 mmHg.





Powerful Software for Detailed Analysis

Gather comprehensive, high-resolution pressure data, observe product performance with powerful visualizations and analyze test data using AI-powered algorithms and software.

Pro V8 software provides mattress designers with a complete toolkit for recording pressure over time, identifying sensor groups for detailed study of specific body areas, extensive features for comparison, and data export for external analysis.

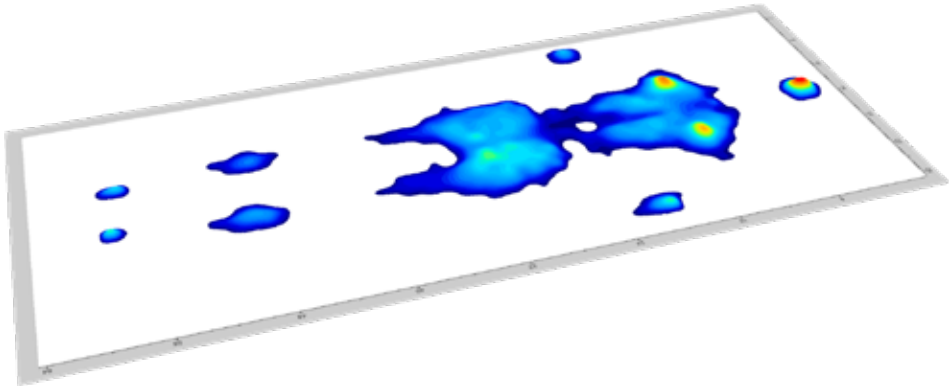
The combination of imagery and data lets you quickly evaluate and compare different design options so you can validate changes as you go, making the modification process both precise and efficient.

Superior Technology for Superior Results

Specifications & Performance

With up to 10,240 sensing points at 0.5 in (12.77 mm) resolution, our sensors allow you to compare, validate, and continuously improve your mattress designs for better pressure relief and support.

Our high-resolution sensors are known for their accuracy, durability, and repeatability. The sensors have low hysteresis, provide consistent data, and are calibrated to 5-100 mmHg or 10-200 mmHg, with accuracy ± 10% full-scale.



Sensor Model	Sensel Size	Sensing Area	Calibration Range	Resolution
PX100:26.64.01	2.54 mm	81.2 cm x 203.2 cm	5-100 mmHg	Low
PX100:48.144.02	12.7 mm	60.9 cm x 182.9 cm	5-100 mmHg	High
PX100:64.160.02	12.7 mm	81.3 cm x 203.2 cm	5-100 mmHg	High

XSENSOR is an ISO 17025-certified pressure imaging sensor manufacturer.

Unlike other sensors on the market, ours maintain their calibration due to the capacitive technology design and unique materials used to make them. Our ISO 17025 accreditation means we have demonstrated competency in producing accurate test and calibration data from our sensors. Your ISO registration requires suppliers to provide verified calibrated test equipment and recalibration processes to maintain your compliance.

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PRODUCT DESIGN & SAFETY TESTING

CONTINUOUS SKIN MONITORING

HUMAN PERFORMANCE

SLEEP IMPROVEMENT

About XSENSOR®

XSENSOR develops Intelligent Dynamic Sensing technology to improve safety, performance, and comfort.

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XSENSOR Technology Corporation
133 12 Avenue SE
Calgary, AB, T2G 0Z9, Canada

North America: +1 (866) 927-5222
Phone: +1 (403) 266-6612

sales@xsensor.com
www.xsensor.com