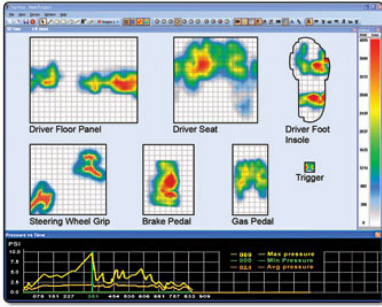# Body Mapping: Automotive Pressure Mapping

Surface pressure profiles of an automobile occupant measured by the Tactilus® Automotive Occupant Pressure Measurement System

Tactilus® Automotive Occupant sensor system

Engineers can simultaneously measure multiple forces applied by an automobile occupant and collect the data in real time. Tactilus®software is essentially a dashboard control panel that assimilates the pipeline of data into comprehensible and easily interpretable images - all on one screen at the same time.

Sensor System Components

- Floor Sensor
- Seat Sensor
- Steering Wheel Sensor
- Brake Pedal Sensor
- Gas Pedal Sensor
- Insole Sensor

Tactilus® Automotive Seatbelt sensor system

The Tactilus® Seatbelt sensor displays a detailed analysis of the body in contact with the seatbelt in real time. The Tactilus® software provides both a static and dynamic picture of the individual, while in motion. Tactilus® provides precise result under dramatic braking conditions when the seatbelts are taut against the body. The sensor displays pressure point distribution and provides data that can be used to design seatbelts to maximize safety of the passenger and reduce injury due to collisions.
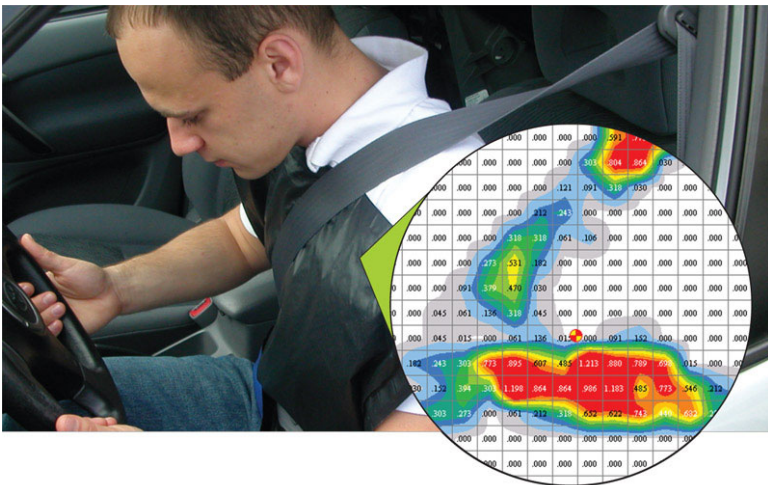
Surface pressure profile of an automobile seat belt during heavy breaking

Features

- 100% Customizable
- Pre-calibrated for application pressure
- Flexible and durable sensor elements
- Resistant to electromagnetic noise
- Modular architecture with interchangeable sensor elements
- Movie viewing of results in Tactilus® software
- 2-D and 3-D imaging
- USB connection
- Windows® compatible software

Tactilus® Technology

Tactilus® is a matrix-based tactile surface sensor, essentially an "electronic skin" that records and interprets pressure distribution and magnitude between any two contacting or mating surfaces. Each Tactilus® sensor is carefully assembled to exacting tolerances, individually calibrated and serialized. The architectural philosophy of Tactilus® is modular allowing for portability, easy expansion, and simultaneous data collection of up to 6 simultaneous sensor elements. The Tactilus® suite of software integrates the data collected into a powerful Windows® based tool kit and employs sophisticated mathematical algorithms that intelligently separate signal from noise, and advanced electronic shielding techniques to maximize the sensor's immunity to noise, temperature and humidity.