

VEST AND BACKPACK ANALYSIS

Application: Human Body Interface

Zoomed View



Torso sensor affixed on a mannequin

The Tactilus® Human Body Interface sensor system is designed to allow the user to collect pressure magnitude and distribution data from across the surface of the human body.

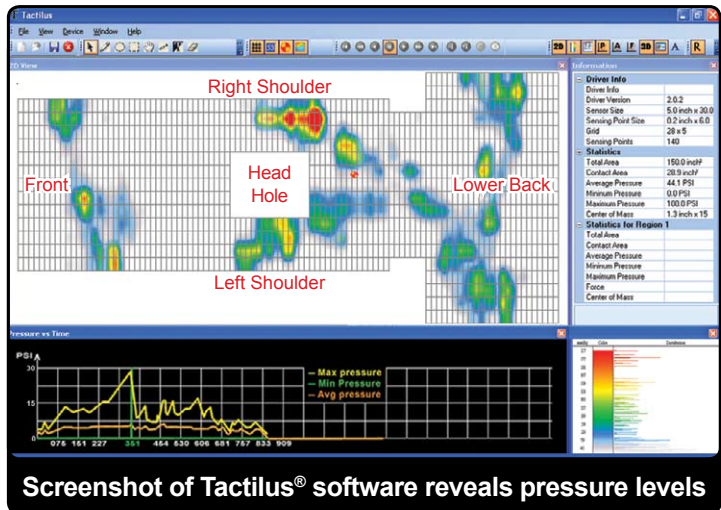
Physical human interface is every bit as important as the ubiquitous graphical user interfaces on our computers, but the world hasn't invested in analysis and research in these areas commensurate with the opportunity at stake. Tactilus® allows the flexibility of recording human interface pressure across multiple skin regions simultaneously.

Bringing human factors and ergonomic engineering to a new level, Tactilus® aids the test or design engineer in optimizing the tradeoff often made between performance and comfort.

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 and assimilates that data collected into a powerful, yet user-friendly, Windows® based tool kit. Each Tactilus® sensor is carefully assembled to exacting tolerances and individually calibrated and serialized. The architectural philosophy of Tactilus® is modular allowing for portability, easy expansion, and simultaneous data collection of up to 6 discrete sensor pads. Tactilus® employs sophisticated mathematical algorithms that intelligently separate signal from noise, and advanced electronic shielding techniques to maximize environmental immunity to noise, temperature and humidity. Our proprietary sensor design ensures the most robust sensor in the industry - an investment that will sustain thousands of uses.

SPECIFICATIONS

Technology	Piezoresistive
Surface Pressure Range	0 - 30 PSI (0 - 2.1 kg/cm ²)
Array Size	Multiple lined sensor elements
Sensing Points	Up to 2,048 total
Total Sensing Area	Customizable to application
Scan Speed	Up to 90 hertz
Spatial Resolution	Custom from 0.37 in (9.5 mm)
Thickness	27.6 mils (0.7 mm)
Accuracy	± 10%
Repeatability	± 2%
Hysteresis	± 5%
Non-linearity	± 1.5%



Screenshot of Tactilus® software reveals pressure levels

"This product should give us great data and validation of our design direction in the future. Our company President saw the sensors and was very impressed"

~ EDGE PRODUCT DEVELOPMENT, Danny Massam