Tactilus® High Speed Impact Force Sensor

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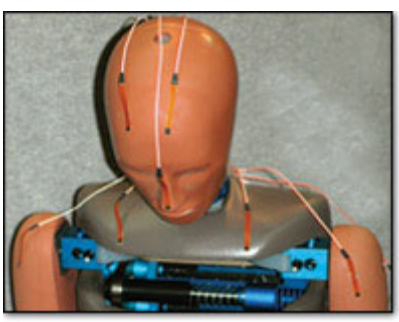
Impact Sensor System

Tactilus® is an ultra-high speed tactile sensor system that captures rapid changes in force levels between any two impacting surfaces in realtime. Events as brief as 1 millisecond can be recorded, parsed and analyzed in multiple time slices. The Tactilus® sensor element is an expendable, highly economical, discrete point sensor element that is simply adhered or affixed to the surface area where contact will occur.



The biaxial orientation yields microscopic gas bubbles or voids in the sensor material, providing for a resilient, highly responsive low memory foam. When the sensor is impacted or impinged upon it produces a signal that is proportionate to the force being applied. Tactilus® comes in a range of dimensions and force levels to suit your particular application needs. Optionally, the sensor element can be individually calibrated to provide for the highest level of accuracy and repeatability.

With its revolutionary technology, the Tactilus® system enables real-time observation of contact surface pressure between any two objects that mate or impact. Tactilus® is a thin, flexible sensor element that conforms to any surface where there is a need to measure pressure.

Tactilus® is a Windows® based sensor system that consists of a sensor element, signal conditioning, electronics and software. Requiring only minimal training, even an inexperienced user can benefit from the power of Tactilus® within minutes.

Benefits:

- Pre-calibrated
- Resistant to electromagnetic noise, temperature and humidity fluctuations
- Flexible and durable sensor element
- Real-time pressure distribution/magnitude data collection and analysis
- Longitudinal and latitudinal analysis
- Modular architecture with interchangeable sensor elements
- 100% customizable
- Intuitive and user friendly Windows® based system

Sensor Specifications	
Technology	Capacitance / Resistive
Pressure Range	0.1 to 200 PSI (0.007 to 14.10 kg/cm²)
Sensor Size	Customizable from 1 in² (2.54 cm²)
Spatial Resolution	Customizable from 1 mm
Scan Speed	Up to 65,000 sensing points/second
Substrate	Kapton / Urethane
Accuracy	± 10%
Repeatability	± 2%
Hysteresis	± 5%
Non-linearity	± 1.5%
Calibration	Pre-calibrated for specified pressure