

For Ultra Sensitive Force Measurement



COMMON APPLICATIONS



Jet:

This sensor is well suited to measure the level of force being projected by both air and liquid jets.



Packaging:

nip impression, heat sealing



Automotive:

brake pad, clamping, clutch, battery & fuel cell, impact, gasket/bolted joint, lamination, welding, wiper



Electronics:

heat sink, BGA, connector, lamination, LCD bonding, wafer bonding / polishing



Aerospace:

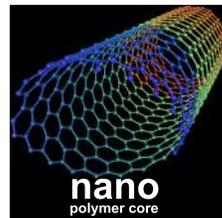
composite layups, fuel cell, lamination



Ergonomics:

biomechanics, body mapping

Tactile Surface Pressure Analysis



THE INNOVATION: Exciting advances in conductive ink printing have enabled us to build customized sensors with extraordinary sensitivity. The core of the C-series sensor is formulated with the world's first

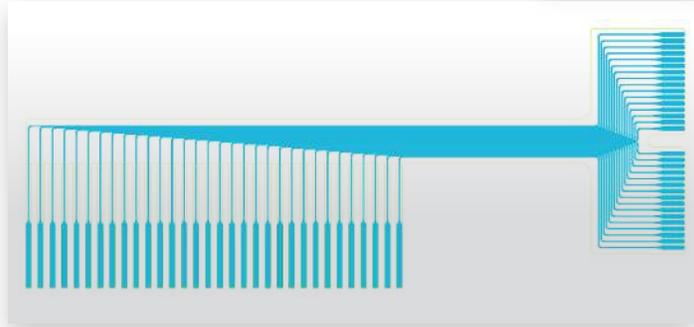
Nano-polymer based tactile surface sensor.

WHAT IT DOES: Tactilus® allow the user to capture and record pressure conditions occurring in between any two contacting or impacting surfaces in real time. The paper-thin Tactilus® sensor is actually placed at the contact interface where it records and assimilates both pressure distribution and pressure magnitude on your Windows® based computer.

The C series represents a highly economical solution to users requiring low-volume or prototype samples. It's a simple 3 step process:

Send your CAD image to us of what you'd like the sensor to look like.

1



Our engineering team modifies and formats the image into an optimal sensor design.

2



We print the sensor on a custom made silk screen and squeegee setup.

3



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 the collected data into a powerful 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 scalability, and simultaneous data collection from up to four discrete sensor pads. Tactilus® employs sophisticated mathematical algorithms that intelligently separate signal from noise, and advanced electronic shielding techniques maximize the sensor's immunity to noise, temperature and humidity.

Specifications

| | |
|------------------------|---|
| Technology | Resistive |
| Surface Pressure Range | 0 - 2 PSI (0 - 0.14 kg/cm ²) |
| Sensing Area Size | 1 in. x 1. in - 5 in. x 5 in. (2.54 cm x 2.54 cm - 12.7 cm x 12.7 cm) |
| Thickness | ~ 11 mils |
| Durability | Up to 10,000 cycles |
| Recommended Current | < 5 mA |
| Supply Voltage | 3-6 VDC |
| Temperature Range | 0° to 113°F (0° to 45°C) |
| Scan Speed | Up to 1,000 hertz |
| Repeatability | < ±10% of calibrated range |
| Hysteresis | < 10% of calibrated range |
| Drift | < 10% per log time scale |

TACTILE PRESSURE EXPERTS



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