

# FREE FORM Sensor System

The Tactilus® free form sensor system is a "user constructed" tactile surface pressure system that provides unprecedented flexibility and ease of use. The free form philosophy is to empower the user to select the precise location where they require data collection rather than the constrained "matrix" inherent in traditional fixed surface sensor skins.

## Salient features:

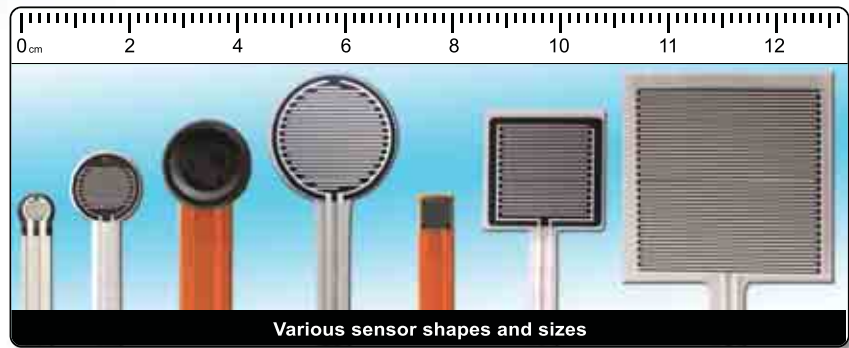
- 32 Channel simultaneous data collection
- Sensors are disposable and very economic

Designed for multi-axis or curvaceous topographies the Tactilus® Free Form sensor system provides engineers the capability to collect and assimilate data from up to 32 separate sensor elements simultaneously, at desired locations on an application surface to maximize data collection efficiency and value. This new approach to tactile surface pressure mapping maintains data integrity and usefulness while allowing engineers the capability of constructing their own sensor "matrix."

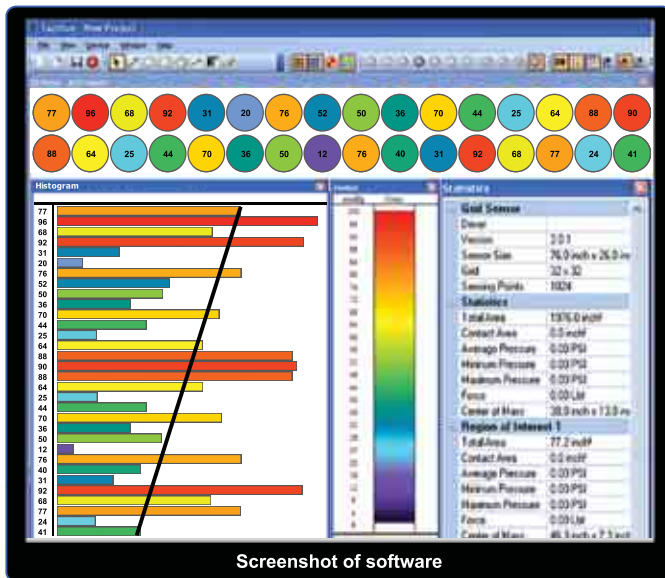
Unique to the industry, each Free Form sensor element is individually calibrated, sequentially serialized and quality tested to ensure the highest repeatability and accuracy. In addition, our sensor assemblies feature ergonomic and high quality Berg connectors, ensuring durable interconnection.



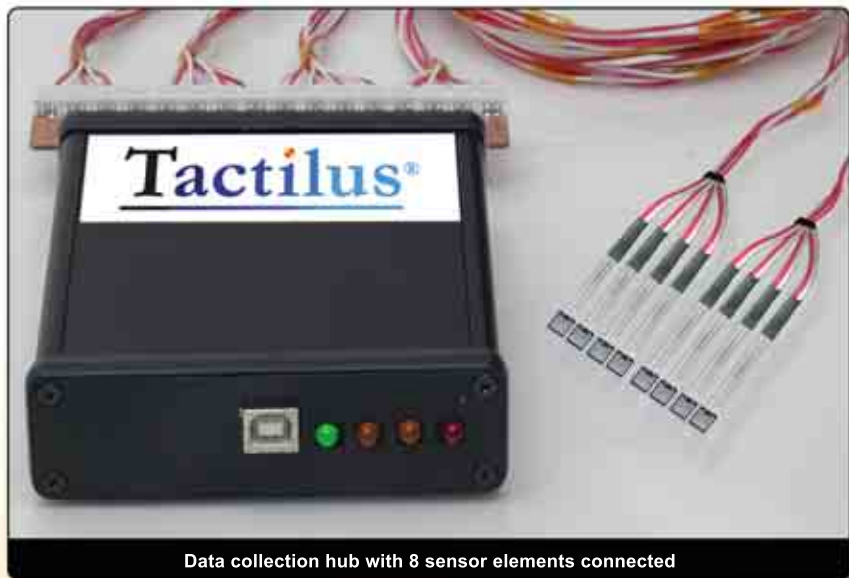
Single Sensing Point



Various sensor shapes and sizes



Screenshot of software



Data collection hub with 8 sensor elements connected

## COMMON APPLICATIONS

- Aerospace:** composite bonding, nip pressures
- Automotive:** door seals, impact forces, fuel cells
- Electronics:** heat sink analysis, nip pressures, lamination, LCD bonding
- Factory:** lamination, clamping, heat sealing, nip pressures
- Orthopedics:** joint analysis, ergonomics

## SENSOR SPECIFICATIONS

| Technology         | Resistive                                  |
|--------------------|--|
| Pressure Range     | 0 - 200 PSI (0 - 14.1 kg/cm <sup>2</sup> ) |
| Dimensions         | 0.08 to 0.5 in (2 to 12 mm)                |
| Thickness          | From 10 mils (0.25 mm)                     |
| Durability         | Up to 100 uses                             |
| Recommend Current  | 5 mA                                       |
| Supply Voltage     | 3-6 VDC                                    |
| Temperature Range  | 0° to 113° F (0° to 45° C)                 |
| Spatial Resolution | Custom from 0.5 in (1.3 cm)                |
| Resistance Range   | 00 MΩ to 500 Ω                             |
| Scan Speed         | 1,000 hz                                   |

System includes: sensor elements, electronic controller, software and cables.