

Application: Heat Exchanger

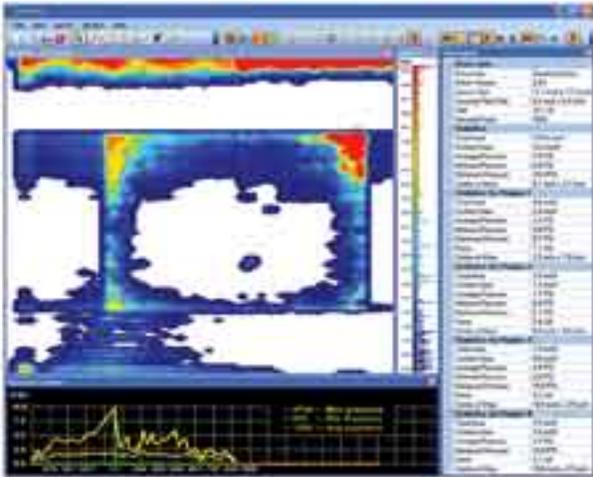


Heat exchange plate

The Tactilus® heat exchange sensor is designed to allow the engineer to capture tactile surface pressure magnitude and distribution data across the entire heat sink/heat source interface. Stresses induced by the bolted interface of a heat exchanger often generate unpredictable pressure contact profiles across the critical interface surface. Even a slight warping of the heat exchange structure or reduction in surface contact area can have profound implications for cooling efficacy. Tactilus® aids the engineer in validating and confirming what is predicted by FEA models.



Side profile of the sensor element between a heat exchange unit & cold plate



Characterization of pressure distribution and magnitude across a heat exchange plate

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 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 4 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.

Our primary proposition is to offer the client precisely what they require or need. To that end, everything we design with respect to the physical sensor element as well as our GUI and DLL's can be completely tailored to your unique situation.

~ Jeffrey G. Stark, CEO

SENSOR SPECIFICATIONS

Technology	Resistive
Pressure Range	0 - 500 PSI (0 - 35.2 kg/cm ²)
Grid Size	256 x 256
Sensing Points	65,536
Total Sensing Area	Customizable to application
Scan Speed	Up to 100 hertz
Spatial Resolution	Custom from 0.5 in (1.3 cm)
Thickness	12 mils (0.3 mm)
Accuracy	± 10%
Repeatability	± 2%
Hysteresis	± 5%
Non-linearity	± 1.5%