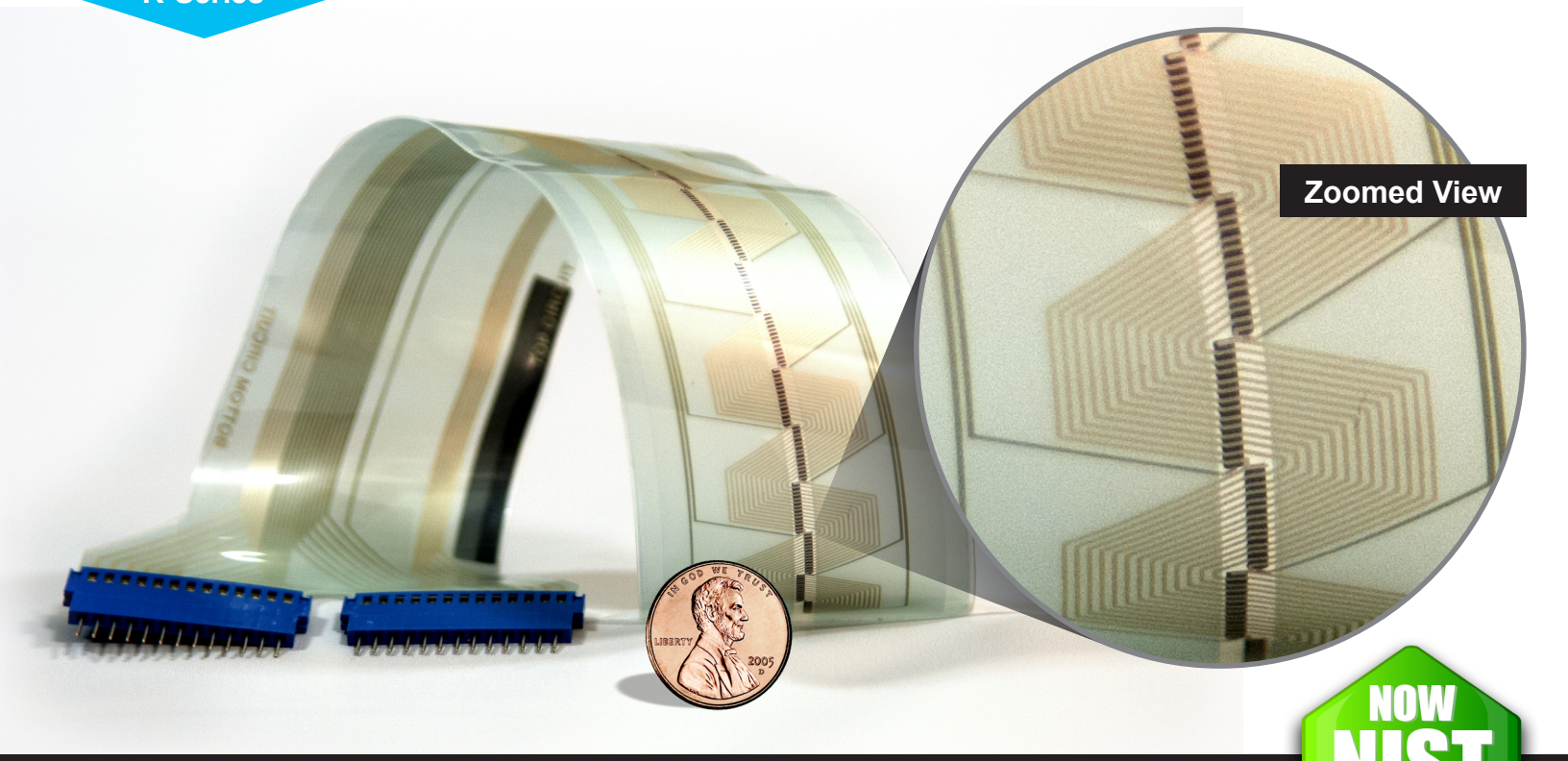
Tactilus®
R-Series

An Economical Tactile Sensor



Tactilus® R-Series Sensor with 168 sensing points

NOW NIST TRACEABLE!

The Tactilus® R-Series system is our **most economical** sensor we've ever developed!

WHAT IT DOES

Tactilus® allows the user to capture and record pressure conditions occurring 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 INNOVATION

Exciting advancements in conductive ink printing have allowed us to develop a sensor that has less batch to batch variation, greater accuracy, and a level of durability that is often associated with hand tools.

Tactilus® R-Series is so thin and packed with such tight spatial resolution it's the closest thing you'll see to human skin. By biomimicking human skin we've taken surface contact pressure measurement to a whole new level.

The Tactilus® sensor consists of a series of interlaced lines that create a matrix with as many as 1,024 unique sensing points. Tactilus® Windows® based tool-kit scientific software communicates with the sensor up to 1,000 times per second - fast enough for impact force measurement. For users desiring direct interfacing with their own control software Sensor Products can supply an API and DLL.

COMMON APPLICATIONS

- **Human Body Interface:** grip pressure, ergonomics, joint analysis
- **Packaging:** heat sealing, nip pressures, lamination
- **Automotive:** door seals, fuel cells
- **Electronics:** heat sinks, nip pressures, lamination, LCD bonding, batteries
- **Aerospace:** composite bonding

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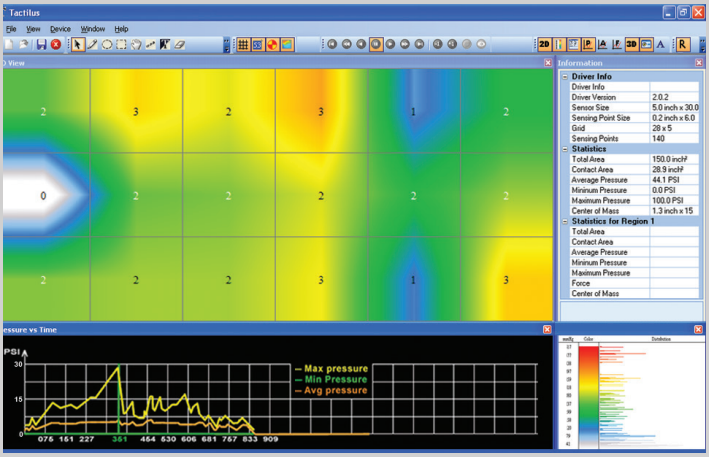
AN IDEAL APPLICATION: ROLLER NIP READINGS

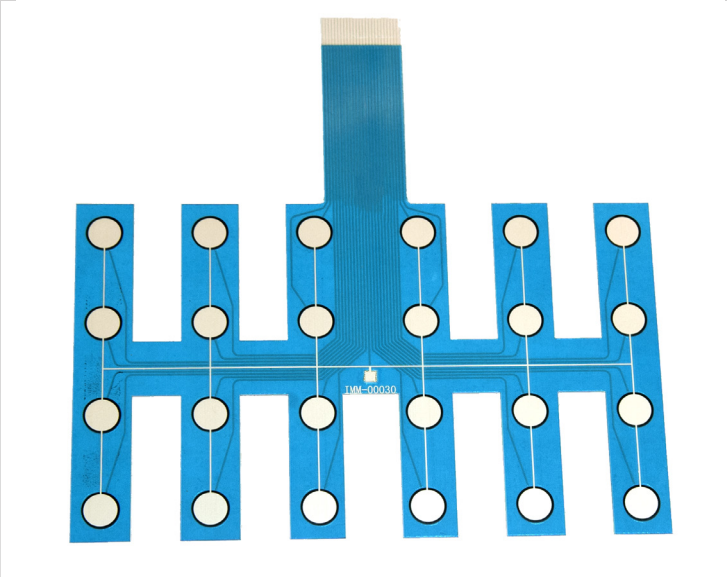
Our Tactilus® R-Series sensors are trusted throughout the world in paper, packaging, film and foil factories for the very demanding application of measuring pressure between rollers. Any factory that requires material to be processed in a web had to contend with ensuring that the rollers that the material passes between are planar and properly tensioned. Tactilus® R-Series is thin yet very rugged and able to withstand extremely harsh environments for tens of thousands or more of iterations. The Tactilus® R-Series system offers the unique combination of customizability, economy, and user friendliness like nothing else available in the market. Bringing tactile surface sensing technology to a new level of affordability Tactilus® R-Series unlocks new prospective applications that were heretofore unserved by surface mapping technology.



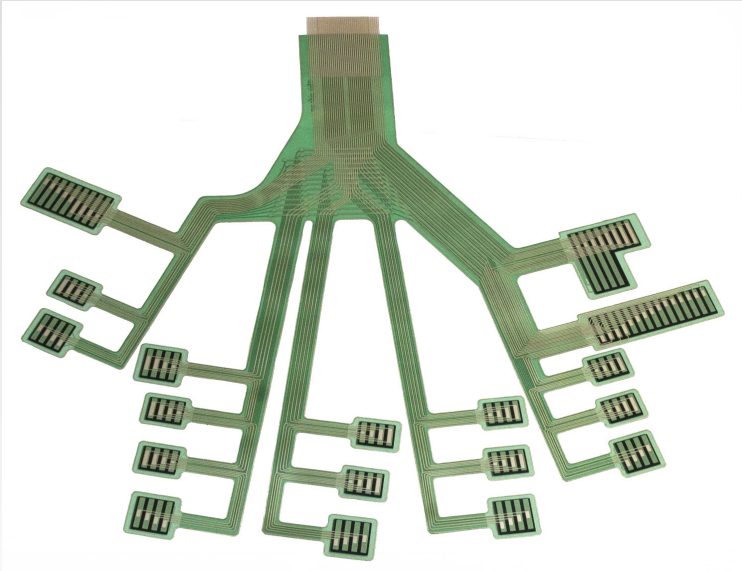
Screenshot of Tactilus® software

BENEFITS

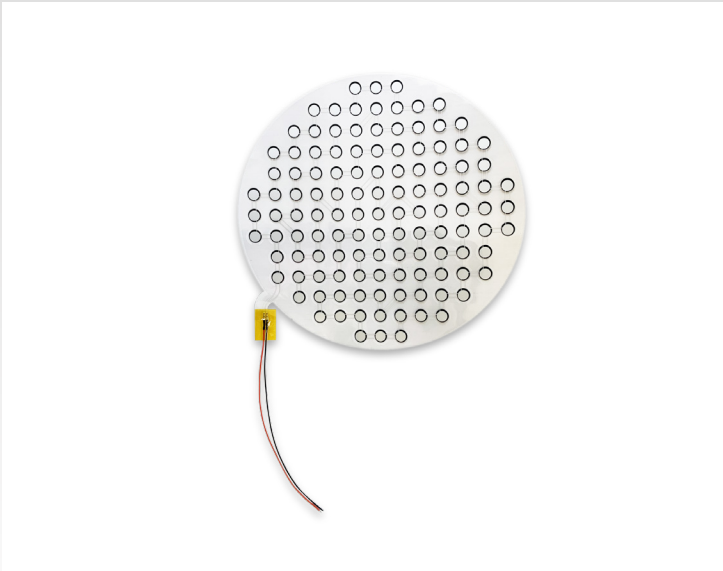
- Very low cost
- Very thin, down to a thickness of 3 mils
- Quick turnaround and low NRE for custom solutions
- True calibration. Our sensors are NIST traceable



Example Sensor



Example Sensor



Example Sensor

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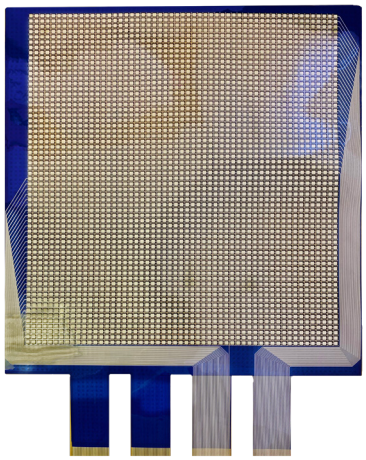
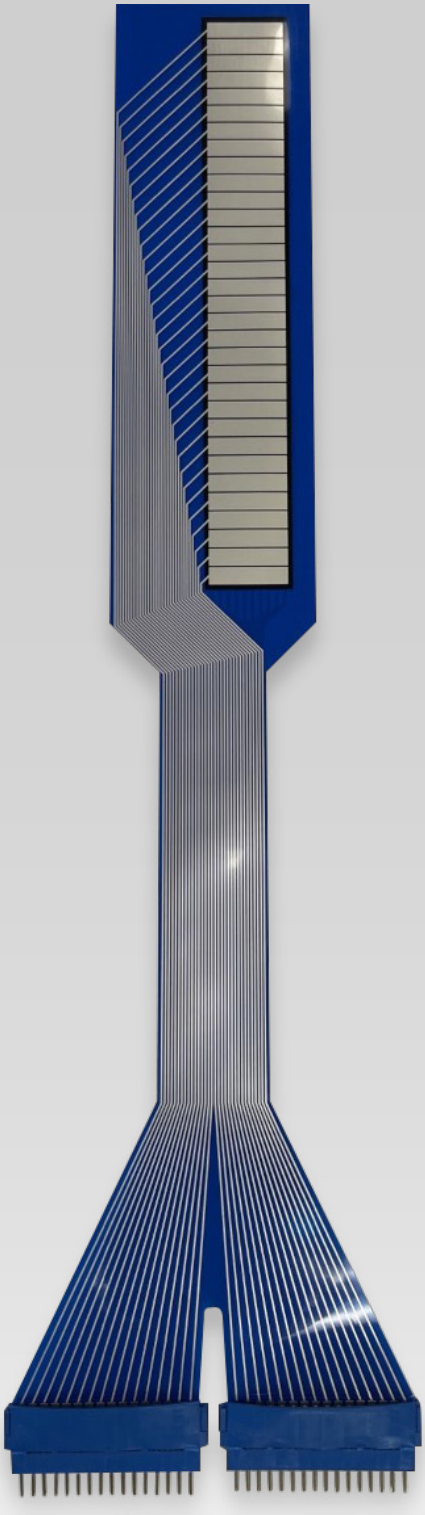


Example Sensor



Custom R-Series Sensor

SPECIFICATIONS

Technology	Printed Resistive Ink
Pressure Range	0.5 - 700 PSI (0.035 - 49 kg/cm²)
Max. Sensor Size	16 in x 36 in (40 cm x 91 cm)
Min. Sensor Point Size	0.03 in x 0.03 in (0.8 mm x 0.8 mm)
Minimum Thickness	10 mils (0.01 mm)
Minimum Spacing	0.01 in (0.5 mm)
Max. Sensing Points	3,465
Temperature Range	-15°F to +131°F (-26°C - 55°C)
Max. Scan Speed	Up to 800 FPS
Substrate	2 mil Myler - thinnest PET (0.05 mm)
Accuracy	± 10%
Repeatability	± 2%
Hysteresis	± 5%
Non-linearity	± 1.5%
Drift	< 10% per log (time scale)
Calibration	NIST Traceable
Wireless	USB (min. of 40 Hz); 30 ft (9.14 m) range
Software Platform[1]	Windows 10

[1]An API can be provided to users who need to real-time connectivity to their own software.

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Updated 05-12-2022