

Linear-Transduction Pressure Sensor

A linear microscale pressure sensor offers enhanced accuracy, self-calibration, and significantly higher capacitance for reliable performance in biomedical, automotive, and telecommunications applications.

Microscale pressure sensors have applications in the biomedical, automotive, and telecommunications industries among others. Many conventional capacitive pressure sensors have nonlinear transduction behavior, where linear transduction would allow for greater accuracy. Purdue researchers have developed a linear microscale pressure sensor. This sensor has 10 to 50 times the capacitance of conventional sensors, lowering signal attenuation. This sensor also has the ability to calibrate itself for accuracy and precision.

TRL: 5

Intellectual Property:

Provisional-Patent, 2011-02-11, United States | Utility Patent, 2012-02-10, United States | NATL-Patent, 2012-02-13, China | PCT-Patent, 2012-02-13, WO | NATL-Patent, 2012-02-13, India | NATL-Patent, 2012-02-13, Singapore | NATL-Patent, 2012-02-13, Republic of Korea

Keywords: Microscale pressure sensors, biomedical, automotive, telecommunications, capacitive pressure sensors, linear transduction, high capacitance, low signal attenuation, self-calibrating sensor, precision accuracy, Electrical Engineering

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Authors

George Akingba
Jason Clark

Further information

Will Buchanan
wdbuchanan@prf.org

View online

