



STRETCHABLE SENSORS  
AND ACTUATORS

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## HIGHLY STRETCHABLE ELASTOMER SENSORS

can be used to measure deformations, forces and pressures. By adding electrical conductive particles the elastomers can be used as electrodes or as heating pads, as well. High elasticity and soft and flexible characteristics makes them also suitable for integration into flexible / stretchable devices or textiles

## APPLICATIONS

- Gaming and fitness (smart interface)
- Robotics (human-machine interface, smart tools, load measurement)
- Healthcare (e.g. 3D-pressure measurement, gesture control, detection of posture and mobility, pulse rate measurement)
- Automotive (smart seat cover, collision detection)

## TECHNICAL DATA

- Pressure range  
1 - 150 N/cm<sup>2</sup> (10 – 1500 kPa)
- Pressure resolution  
0.1 N/cm<sup>2</sup> (1 kPa)
- Strain measurement 0 – 100 %
- Strain meas. resolution 1 %
- Measuring frequency  
at least 50 Hz
- Electrical conductivity up to  
0,6 S/cm (even at 100 % strain)
- Temperature operating range  
from -40 to +180 °C
- Very thin (0,5 mm),
- Very elastic (up to 100 % elongation)



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