

## Response-Curves Fully Controlled Pressure Sensors by Designated Electrodes

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The resistive type pressure sensor, which is mainly utilized in industry, has the advantages of being easy to manufacture, and of being hardly affected by external electromagnetic fields, unlike the capacitive type. However, the signal is not linear, and it is also difficult to measure a wide range of pressures. Therefore, before being utilized, the extracted nonlinear data need to be newly processed by computer. Herein, we present a resistive sensor that is capable of measuring a wide range of pressure of up to 4 MPa with constant linearity. [1] Controlled contact points between deformable structure and designed electrodes enabled this unique characteristic. Moreover, as well as the linear response in a sensor, differently designed sensors can selectively control the sensing pressure band, or act as an on/off switch by the sensor itself, without any digital computing process.

[1] C. Jeong, J. S. Lee, B. Park, C. S. Hong, *Adv. Mater.* 2019, 1902689.