

Pressure sensors

TDK offers miniaturized, highly sensitive MEMS pressure sensor element

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TDK Corporation (TSE:6762) presents the new C35 type pressure sensor element, designed to measure a range of 0 to 100 mbar. It combines high sensitivity with extremely low dimensions of just 2.05 x 2.05 x 1.2 mm, enabling compact pressure sensor designs.

The pressure sensor element with ordering code B58601E35* works according to the piezoresistive principle via a Wheatstone bridge and is certified for an operating voltage of up to 10 V. Offering a high sensitivity of 110 mV/V/bar, C35 is well suited for applications with high demands of sensitivity, accuracy and long-term stability of 0.1% FSON. Furthermore, C35 is designed for a wide temperature range from -40 °C to +150 °C and is suitable for pressure measurements of non-aggressive gases and liquids. The main uses are in applications that require high reliability and extremely precise pressure measurement, such as medical engineering and the industrial and automotive sectors.

Main fields of application

Pressure measurement in demanding applications such as medical engineering as well as in the industrial and automotive sectors

Main features and benefits

- Measuring range of 0 to 100 mbar
- High sensitivity of 110 mV/V/bar
- High long-term stability (LTSV0) of 0.1% FSON
- Extremely low dimensions of just 2.05 x 2.05 x 1.2 mm
- Wide temperature range of -40 °C to +150 °C

About TDK Corporation

TDK Corporation is a world leader in electronic solutions for the smart society based in Tokyo, Japan. Built on a foundation of material sciences mastery, TDK welcomes societal transformation by resolutely remaining at the forefront of technological evolution and deliberately “Attracting Tomorrow.” It was established in 1935 to commercialize ferrite, a key material in electronic and magnetic products. TDK’s comprehensive, innovation-driven portfolio features passive components such as ceramic, aluminum electrolytic and film capacitors, as well as magnetics, high-frequency, and piezo and protection devices. The product spectrum also includes sensors and sensor systems such as temperature and pressure, magnetic, and MEMS sensors. In addition, TDK provides power supplies and energy devices, magnetic heads and more. These products are marketed under the product brands TDK, EPCOS, InvenSense, Micronas, Tronics and TDK-Lambda. TDK focuses on demanding markets in automotive, industrial and consumer electronics, and information and communication technology. The company has a network of design and manufacturing locations and sales offices in Asia, Europe, and in North and South America. In fiscal 2021, TDK posted total sales of USD 13.3 billion and employed about 129,000 people worldwide.

You can download this text and associated images from www.tdk-electronics.tdk.com/en/211007

Further information on the products can be found under https://www.tdk-electronics.tdk.com/en/pressure_sensor_elements.

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