

## Temperature sensors

# TDK offers rugged SMT NTC sensor for surface temperatures

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TDK Corporation (TSE:6762) presents the new T850 SMT NTC sensor (B57850T0103\*) for measuring surface temperatures. It combines high humidity resistance with fast response time due to excellent thermal coupling to the target. The sensor is suitable for harsh environments with temperatures from -40 °C to +150 °C and is waterproof for up to 500 hours. In addition, the sensor, with its aluminum oxide ceramic surface, offers a high dielectric strength of 2500 V AC for 60 s.

The robust, lead- and halogen-free NTC sensor has dimensions of 10 x 3 x 3 mm (L x W x H). At 25 °C, the model B57850T0103F000 has a nominal resistance of 10,000 Ω with a tolerance of 1%, while the model B57850T0103G000 has a tolerance of 2%. The connecting electrodes are made of phosphor bronze and can be contacted by piston soldering, laser soldering, micro-resistance welding, or TIG welding.

Typical applications are the measurement of surface temperatures in heating and building technology, for example, heat sinks of power modules as well as temperature monitoring of industrial processes.

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### Main applications

- Heating and building services engineering
- Heat sinks of power modules
- Temperature monitoring of industrial processes

### Main features and benefits

- High dielectric strength of 2500 V AC for 60 s
- High moisture resistance (waterproof up to 500 hours)
- Wide measuring range from -40 °C to +150 °C
- Lead and halogen-free

## 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 2023, TDK posted total sales of USD 16.1 billion and employed about 103,000 people worldwide.

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