

## Plasma generators

### Compact CeraPlas™ HF element for cold plasma

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TDK Corporation (TSE:6762) presents CeraPlas™ HF, a compact cold plasma generator element that is based on a PZT (lead zirconate titanate) ceramic and packaged in a plastic housing. CeraPlas HF measures in at just 47.3 mm x 20 mm x 20 mm and its leads are suitable for soldering. Further notable features are its low weight, low power consumption and low input voltage. CeraPlas HF can be integrated easily and without any special safety measures for protection against high voltage in plasma systems. The new plasma generator is able to ionize different gases – including air – under normal pressure. Because the temperature remains below 50 °C, heat-sensitive materials can be treated with plasma. The combination of compact dimensions and low power consumption therefore makes CeraPlas technology ideal for battery-powered handheld devices.

CeraPlas has a wide variety of applications. It can be used for the surface treatment of plastics, for example, to make them easier to print or write on. Another area of applications is the treatment of wounds or the cleaning of devices. Moreover, the generation of ozone also enables unpleasant odors to be eliminated.

Apart from the generator itself, TDK also offers an evaluation kit, which, in addition to a CeraPlas HF element, also contains control electronics that enables the plasma generator to be operated at different performance levels.

Laboratory samples of the CeraPlas HF element are available under ordering code Z63000Z2910Z 1Z60. The order code for the evaluation kit – including the control electronics – is Z63000Z2910Z 1Z61. This kit is recommended for initial tests, as it enables the CeraPlas element to be operated without any problems.

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#### **Main applications**

- Activation of surfaces, e.g. of plastics for improved printability
- Treatment of wounds, cleaning of devices
- Elimination of unpleasant odors

#### **Main features and benefits**

- Compact dimensions
- Low power consumption
- Low input voltage, making battery operation possible
- Plasma temperature of less than 50 °C

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## About TDK Corporation

TDK Corporation is a leading electronics company based in Tokyo, Japan. It was established in 1935 to commercialize ferrite, a key material in electronic and magnetic products. TDK's comprehensive 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 the areas of information and communication technology and automotive, industrial and consumer electronics. The company has a network of design and manufacturing locations and sales offices in Asia, Europe, and in North and South America. In fiscal 2018, TDK posted total sales of USD 12 billion and employed about 103,000 people worldwide.

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Further information on the products can be found under [www.tdk-electronics.tdk.com/plasma](http://www.tdk-electronics.tdk.com/plasma).

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