

Sensors

Precise surface temperature sensors with lug terminals for up to 150 °C

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TDK Corporation has expanded the NTCGP series of TDK NTC temperature sensors with types featuring lug terminals for the precise measurement of surface temperatures from -40 °C to +150 °C. With their metal lug terminals the compact and highly-reliable epoxy-dipped NTC thermistors can be screwed directly to circuit boards and mounted components. Mass production will begin in September 2012.

The NTCGP series now features two new lug terminal types: the standard design with a nominal resistance of 50 k Ω and B coefficient (B25/85) of 3950 K and the linear output type with a nominal resistance of 10 k Ω and B coefficient (B25/85) of 2250 K.

As the spread of electric vehicles and solar power gains momentum, precise temperature management of the control circuit boards and electronic components used in these vehicles and systems is becoming even more important for improving performance and reliability. Thanks to the new NTC ceramic elements with linear output characteristics over a wide temperature range, the expanded NTCGP series is ideally suited for temperature measurement of DC-DC converters in electric and plug-in hybrid electric vehicles and of DC-AC inverters of solar power systems, as well as wide range of other applications.

Main applications

- Surface temperature measurement of circuit boards and mounted components of DC-DC converters in electric and plug-in hybrid electric vehicles and in DC-AC inverters of solar power systems.

Main features and benefits

- NTC temperature sensors with lug terminals can detect temperatures from -40 °C to +150 °C.
- Newly-developed ceramic elements provide linear output from low to high temperatures.
- Direct screw attachment of lug terminals to circuit boards and mounted components enables accurate temperature detection.

Key data

NTCGP series	Nominal resistance R25 [kΩ]	B coefficient B25/85 [K]	Operating temperature [°C]
Standard type	50	3950	-40 to +150
Linear output type	10	2250	-40 to +150

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 current product line includes passive components, magnetic application products as well as energy devices, flash memory application devices, and others. TDK today focuses on demanding markets in the areas of information and communication technology and consumer, automotive and industrial 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 2012, TDK posted total sales of USD 9.9 billion and employed about 79,000 people worldwide.

About TDK-EPC Corporation

TDK-EPC Corporation, a TDK group company, is a leading manufacturer of electronic components, modules and systems, headquartered in Tokyo, Japan. TDK-EPC was founded in 2009 from the combination of the passive components business of TDK and the EPCOS Group. The portfolio includes ceramic, aluminum electrolytic and film capacitors, ferrites and inductors, magnets, high-frequency components such as surface acoustic wave (SAW) filter products and modules, piezo and protection components, and sensors. The company markets the product brands TDK and EPCOS.

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www.global.tdk.com/news_center/press/aah41500.htm.

Further information on the products can be found under http://www.tdk.co.jp/tefe02/eb225_ntcdp.pdf.

Contacts for regional media

Region	Contact	Phone	Mail
Japan	Ms. Mari KONISHI TDK Corporation Tokyo, Japan	+813 5201-7102	pr@jp.tdk.com
ASEAN	Ms. Tomoko KAMEDA TDK Singapore (Pte) Ltd. Singapore	+65 6273 5022	asean.inquiry@sg.tdk.com
Greater China	Ms. Clover XU TDK China Co., Ltd. Shanghai, China	+86 21 61962307	pr@cn.tdk.com
Europe	Mr. Frank TRAMPNAU TDK Electronics Europe GmbH Dusseldorf, Germany	+49 211 9077 127	trampnau@eu.tdk.com
America	Ms. Sara M. REYNOSO TDK Corporation of America Irving, TX, USA	+1 972-409-4519	sara.reynoso@us.tdk.com