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PR-No. 02 – 04. May 2021

TDK announces worldwide availability of the InvenSense ICP-10125 waterproof SmartPressure™ platform

- *Industry's lowest power waterproof MEMS barometric pressure sensor*
- *IPX8 compliant: Waterproof to 10 ATM or more than 100 meters*
- *Suitable for smart watches, fitness trackers, and outdoor IoT applications*

April 14, 2021

TDK Corporation (TSE: 6762) announces worldwide availability of the InvenSense ICP-10125, part of the SmartPressure™ family of the MEMS barometric pressure sensor platform. The ICP-10125 achieves the industry's lowest pressure noise of 0.4 Pa RMS, attains the industry's lowest power consumption of 1.3 μ A, and ensures excellent temperature stability with a temperature coefficient of ± 0.5 Pa/°C.

The ICP-10125 device combines a barometric pressure and a temperature sensor in a small 3.55 mm x 3.55 mm x 1.45 mm chimney package with waterproofing gel, providing IPX8 waterproofing to 10 ATM. The uniform machined lid and chimney with groove enable easier handling at production and assembly of customer products. The solution is aimed at the fitness, smart watch, and portable device markets that assist in fitness activity monitoring, location tracking for E911 calls, and indoor/outdoor navigation (dead-reckoning, floor/elevator/step detection).

The InvenSense SmartPressure™ family uses an innovative capacitive MEMS architecture to deliver lower power consumption and lower noise than competing pressure sensors technologies. With its ultra-low noise and low power consumption, ICP-10125 is ideally suited for wearable fitness monitoring and battery powered IoT. It can measure height change as small as 8.5 cm, less than the height of a single stair step.



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“ICP-10125 delivers high accuracy, low power, temperature stability, and waterproofing in a small package footprint targeting the wearable market,” said Uday Mudoji, Director of Product Marketing at InvenSense, a TDK group company. “It enables determination of accurate location of E911 calls, tracks changes in elevation for activity monitoring, and extends battery life of always-on motion sensing applications.”

Pricing and Availability

InvenSense ICP-10125 is currently available for worldwide distribution. A comprehensive development kit (DK-10125) and evaluation platform are also available along with necessary software to enable quick-to-market development of customer systems. In addition to the ICP-10125, the ICP-10101 and ICP-10111 pressure sensor products are already available in worldwide distribution. For more information about pricing and availability info please visit email: sales.europe@macnica.com.

For additional information on the ICP-10125 family:

- Download ICP-10125 datasheet
- Order ICP-10125 samples and development kits
- Download Application Note

Glossary

- IoT: Internet of Things
- Pa: Pascal
- E911: Enhanced 911 service
- EV: Evaluation module
- DK: Developer Kit
- MEMS: Micro-Electro-Mechanical Systems



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Main applications

- Smart watches
- Leisure, sports, and fitness activity monitoring for wearable sensors
- Altimeters and barometers for portable devices
- Indoor/outdoor navigation (dead-reckoning, floor/elevator/step detection)
- Home and building automation

Main features and benefits

- Pressure operating range: 30 to 110 kPa
- Multiple modes for noise and power optimization
 - 4 Pa @ 10.4 μ A (Ultra low noise mode)
 - 8 Pa @ 5.2 μ A (Low noise mode)
 - 2 Pa @ 1.3 μ A (Low power mode)
- Pressure sensor temperature coefficient offset: ± 0.5 Pa/ C
- IPX8: waterproof to 10 ATM
- Temperature operating range: -40 °C to 85 °C

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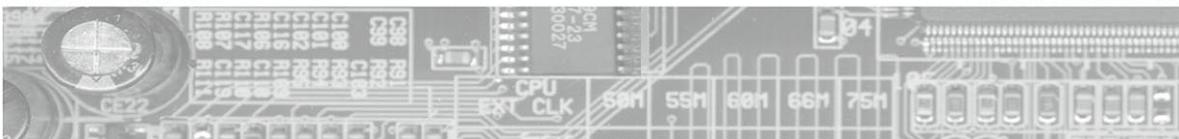
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About TDK Corporation

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 2020, TDK posted total sales of USD 12.5 billion and employed about 107,000 people worldwide.

About InvenSense

InvenSense, Inc., a TDK Group company, is a world leading provider of MEMS sensor platforms. InvenSense’s vision of Sensing Everything® targets the consumer electronics and industrial areas with integrated Motion and Sound solutions.

InvenSense’s solutions combine MEMS (micro electrical mechanical systems) sensors, such as accelerometers, gyroscopes, compasses, and microphones with proprietary algorithms and firmware that intelligently process, synthesize, and calibrate the output of sensors, maximizing performance and accuracy.

InvenSense’s motion tracking, audio and location platforms, and services can be found in Mobile, Wearables, Smart Home, Industrial, Automotive, and IoT products. In May of 2017, InvenSense became part of the MEMS Sensors Business Group within the newly formed Sensor Systems Business Company of TDK Corporation.

InvenSense is headquartered in San Jose, California and has offices worldwide. For more information, go to <https://www.invensense.tdk.com>.

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About Macnica Europe GmbH

Macnica's European headquarter was originally established in the UK in 2006, and moved to Germany in July 2008, to increase efficacy of its service for European customers.

By its acquisition of the Munich based company Scantec Mikroelektronik in 2014 Macnica Europe formed a powerful semiconductor distribution with headquarters in Munich and Ingolstadt and numerous sales offices in Europe offering an attractive and competitive portfolio of highly sophisticated devices.

Macnica provides end to end support from design-in to production through its global service network to its customers, regardless of the final destination of the product shipment to customers' manufacturing locations.

About Macnica, Inc.

Macnica was established in 1972 as a semiconductor distribution company headquartered in Yokohama, Japan, and has over 84 sales offices worldwide in eastern Asia, Europe and the USA. Total number of employees is over 3,000 and its consolidated revenue for fiscal 2019 was approximately US\$ 5 B.

Macnica is famous for having an excellent engineering team of more than 900 application support engineers, IC designers and software developers with strong focus on providing technical support for its customers including custom design services. Macnica is continuing to extend its presence globally by having successful partners in strategic areas in the electronics market.

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