

Press



RELEASES

PR-Nr. 24 – 01. February 2018

Industry's Lowest Noise and Lowest Power Barometric Pressure Sensor

- *Industry's most precise pressure sensor in a 2 x 2 x 0.72 mm package*
- *Waterproof to 1.5 m*
- *Suitable for smartphones, wearables, drones, and IoT markets*

January 9, 2018

TDK Corporation announces the InvenSense ICP-10100, an ultra-low noise and ultra-low power MEMS capacitive barometric pressure sensor. The ICP-10100 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/ $^{\circ}$ C.

The capacitive pressure sensor can measure extremely small pressure differences of ± 1 Pa, enabling the ICP-10100 to detect altitude changes of less than 5 cm. With a temperature coefficient of ± 0.5 Pa/ $^{\circ}$ C, the MEMS capacitive temperature stable pressure sensor can operate over wide temperature ranges and a variety of applications.

The combination of high accuracy, low power, temperature stability, and waterproofing in a small package footprint enables improved activity identification, mobile indoor/outdoor navigation, altitude-hold in drones, and extends battery life of always-on motion sensing applications.

“InvenSense recently released the ICM-20789, the industry's first 7-axis (3-axis accel, 3-axis gyro, 1-axis pressure) targeting the drone and wearable markets,” said Amir Panush, InvenSense Vice President and General Manager of the Motion and Pressure Business Unit. “The ICP-10100 expands our footprint into additional market segments of consumer electronics, IoT, and mobile – enabling our customers to achieve new use cases not possible with previous technology due to improved motion sensing capabilities.”

MACNICA

MACNICA GmbH, 85051 Ingolstadt

www.macnica.eu

MACNICA

MACNICA GmbH, 81249 Munich

www.macnica.eu



Press



RELEASES

InvenSense ICP-10100 is currently available in wide distribution. In addition to the ICP-10100 in a 2 x 2 x 0.72 mm 1.5 m waterproof package, InvenSense is sampling to strategic customers the ICP-101xx pressure sensor family in a 2 x 2.5 x 0.92 mm industry-standard package footprint, and the entire ICP-101xx pressure sensor family will be available in wide distribution in February 2018.

* Status: January 2018 according to InvenSense market research

Main applications

- Altitude Control of Drones and Flying Toys
- Mobile Phones
- Leisure, Sports, and Fitness Activity Identification
- Indoor/Outdoor Navigation (dead-reckoning, floor/elevator/step detection)
- Vertical velocity monitoring
- Virtual Reality and Gaming Equipment
- Weather Forecasting

Key features and benefits of ICP-10100 and the ICP-101xx family

- Ultra-low noise and exceptional relative accuracy: Featuring the industry's lowest pressure noise of 0.4 Pa RMS and relative accuracy of ± 1 Pa, less than 5 cm of altitude, the ICP-101xx enables improved altitude-hold of drones, ability to count stairs in wearable activity monitoring applications, and detection of slight intrusions of security systems
- Ultra-low power: With the industry's lowest power consumption of 1.3 μA at 1 Hz output data rate, the ICP-101xx pressure sensor family extends battery life and enables always-on battery powered motion sensing
- Low temperature coefficient: With an industry-leading temperature coefficient of ± 0.5 Pa/ $^{\circ}\text{C}$, the pressure sensor is very stable over a wide range of wide-

MACNICA

MACNICA GmbH, 85051 Ingolstadt

www.macnica.eu

MACNICA

MACNICA GmbH, 81249 Munich

www.macnica.eu



Press



RELEASES

temperature applications and reduces sensor placement concerns due to heating from nearby components.

Key data

Product	Packaging Dimensions	Media Compatibility	Pressure Noise & Accuracy	Power Consumption	Temperature Coefficient
ICP-101xx	2 x 2 x 0.72 mm 2 x 2.5 x 0.92 mm	IPx8: Waterproof to 1.5 m	Noise: 0.4 Pa RMS Relative Accuracy: ± 1 Pa	1.3 μ A at 1 Hz ODR	± 0.5 Pa/ $^{\circ}$ C

Pricing and Availability

For information about Pricing and availability info via email:

sales.europe@macnica.com.

Contact:

Press

Macnica GmbH

Josef Sigl

Tel. +49-89-899143-0

Email: sales.europe@macnica.com

Sales

Macnica GmbH

Tel. +49-84188198-0

Email: sales.europe@macnica.com

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 portfolio includes passive components, such as ceramic, aluminum electrolytic and film capacitors, ferrites and inductors, high-frequency products, and piezo and protection components, as well as sensors and sensor systems and power supplies. These products are marketed under the product brands TDK, EPCOS, InvenSense, Micronas, Tronics and TDK-Lambda. TDK's further main product groups include magnetic application products, energy devices, and flash memory application devices. 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

MACNICA

MACNICA GmbH, 85051 Ingolstadt

www.macnica.eu

MACNICA

MACNICA GmbH, 81249 Munich

www.macnica.eu



Press



RELEASES

sales offices in Asia, Europe, and in North and South America. In fiscal 2017, TDK posted total sales of USD 10.5 billion and employed about 100,000 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 www.invensense.com and <http://www.coursaretail.com>.

About Macnica, Inc.

Macnica was established in 1972 as a semiconductor distribution company headquartered in Yokohama, Japan, and has over 65 sales offices worldwide in eastern Asia, Europe and the USA. Total number of employees is over 2,600 and its consolidated revenue for fiscal 2015 was approximately US\$ 4 B. Macnica is famous for having an excellent engineering team of more than 800 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.

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.

MACNICA

MACNICA GmbH, 85051 Ingolstadt

www.macnica.eu

MACNICA

MACNICA GmbH, 81249 Munich

www.macnica.eu

