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Barometer 4 Click





PID: MIKROE-4868

Barometer 4 Click is a compact add-on board used to measure air pressure in a specific environment. This board features the ICP-10111, a high accuracy low power barometric and temperature sensor from TDK InvenSense. The ICP-10111 is based on MEMS capacitive technology providing ultra-low noise at the lowest power, enabling industry-leading relative accuracy, sensor throughput, and temperature stability. It comes with a configurable host interface that supports I2C serial communication and measures pressure in a range from 30kPa up to 110kPa with an accuracy of ± 1 Pa over a wide operating temperature range. This Click board is suited for various pressure-based applications, especially when low power consumption is required, home appliances such as airflow control in HVAC, water level detection, vertical velocity monitoring, weather forecasting, and many more.

Barometer 4 Click is supported by a $\frac{\text{mikroSDK}}{\text{compliant library}}$, which includes functions that simplify software development. This $\frac{\text{Click board}^{\intercal}}{\text{comes}}$ comes as a fully tested product, ready to be used on a system equipped with the $\frac{\text{mikroBUS}^{\intercal}}{\text{mikroBUS}^{\intercal}}$ socket.

Mikroe produces entire development toolchains for all major microcontroller architectures.

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health and safety management system.

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Specifications

Туре	Pressure
Applications	Can be used for various pressure-based applications, especially when low power consumption is required, home appliances such as airflow control in HVAC, water level detection, vertical velocity monitoring, weather forecasting, and many more
On-board modules	ICP-10111 - an ultra-low power, low noise, digital output barometric pressure, and temperature sensor from TDK InvenSense
Key Features	Low power consumption, high precision, embedded temperature sensor, ultra-low noise, temperature stability, accuracy of ±1Pa over a wide operating temperature range, also measure altitude differentials down to 8.5cm, and more
Interface	I2C
ClickID	No
Compatibility	mikroBUS
Click board size	S (28.6 x 25.4 mm)
Input Voltage	3.3V or 5V

Resources

mikroBUS™

mikroSDK

Click board™ Catalog

Click Boards™

Downloads

Barometer 4 click example on Libstock

PCA9306 datasheet

Barometer 4 click 2D and 3D files

ICP-10111 datasheet

BH18PB1WHFV datasheet

Barometer 4 click schematic

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