

Speed Sense Click



PID: MIKROE-5977

Speed Sense Click is a compact add-on board that allows you to measure the speed and rotation of a spinning object. This board features the [A17501](#), a dual output differential speed and direction sensor from [Allegro Microsystems](#). It has a high-speed switching bandwidth of up to 40kHz for two different signals. The sensor has two independent output channels with options for high-resolution XOR speed, pulse, and direction protocol. This Click board™ makes the perfect solution for the development of rotational position-sensing devices based on a ring magnet target design, which is common in automotive and industrial electric motor applications.

Speed Sens Click (EU) is fully compatible with the mikroBUS™ socket and can be used on any host system supporting the [mikroBUS™](#) standard. It comes with the [mikroSDK](#) open-source libraries, offering unparalleled flexibility for evaluation and customization. What sets this [Click board™](#) apart is the groundbreaking [ClickID](#) feature, enabling your host system to seamlessly and automatically detect and identify this add-on board.

Mikroe produces entire development toolchains for all major microcontroller architectures.

Committed to excellency, we are dedicated to helping engineers bring the project development up to speed and achieve outstanding results.



ISO 27001: 2013 certification of informational security management system.
 ISO 14001: 2015 certification of environmental management system.
 OHSAS 18001: 2008 certification of occupational health and safety management system.



ISO 9001: 2015 certification of quality management system (QMS).

Specifications

Type	Motion
Applications	Can be used for the development of rotational position-sensing devices based on a ring magnet target design which is common in automotive and industrial electric motor applications
On-board modules	A17501 - dual output differential speed and direction sensor from Allegro Microsystems
Key Features	A high-speed switching bandwidth, two independent output channels, immune to common external magnetic disturbance, ideally suited for asynchronous electric motor applications, integrated EEPROM enables factory traceability throughout the product life cycle and more
Interface	GPIO
ClickID	Yes
Compatibility	mikroBUS™
Click board size	M (42.9 x 25.4 mm)
Input Voltage	3.3V or 5V, External

Resources

[mikroBUS™](#)

[mikroSDK](#)

[Click board™ Catalog](#)

[ClickID](#)

Downloads

[Speed Sense click example on Libstock](#)

[Speed Sense click 2D and 3D files](#)

[Speed Sense click schematic](#)

[A17501 datasheet](#)

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