

Magnetic Rotary 3 Click



PID: MIKROE-5203

Magnetic Rotary 3 Click is a compact add-on board for accurate magnet-position sensing. This board features the [AS5147](#), an SPI-configurable high-resolution rotary position sensor for fast absolute angle measurement over a full 360-degree range from [ams AG](#). The AS5147 position sensor suppresses the influence of any homogenous external stray magnetic field, equipped with a revolutionary integrated dynamic angle error compensation (DAEC™) with almost zero latency. It also comes with onboard headers reserved for incremental and commutation signals of their respective A/B/I and U/V/W signals alongside embedded self-diagnostics, including magnetic field strength too high, magnetic field strength too low or lost magnet, and other related diagnostic features. This Click board™ has been designed to support BLDC motor commutation for the most challenging automotive applications.

Magnetic Rotary 3 Click is supported by a [mikroSDK](#) compliant library, which includes functions that simplify software development. This [Click board™](#) comes as a fully tested product, ready to be used on a system equipped with the [mikroBUS™](#) socket.

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	Magnetic
Applications	Can be used to support BLDC motor commutation for the most challenging automotive applications
On-board modules	AS5147 - rotary position sensor for fast absolute angle measurement over a full 360-degree range from ams AG
Key Features	Good resolution for motor and position control, independent output interfaces, self-diagnostics, immune to external stray field, low power consumption, and more
Interface	SPI
Compatibility	mikroBUS
Click board size	M (42.9 x 25.4 mm)
Input Voltage	3.3V

Resources

[mikroBUS™](#)

[mikroSDK](#)

[Click board™ Catalog](#)

[Click boards™](#)

Downloads

[Magnetic Rotary 3 click example on Libstock](#)

[Magnetic Rotary 3 click 2D and 3D files](#)

[AS5147 datasheet](#)

[Magnetic Rotary 3 click schematic](#)

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