

# Magnetic Rotary 4 Click



PID: MIKROE-5223

**Magnetic Rotary 4 Click** is a compact add-on board for accurate magnet-position sensing. This board features the AS5047D, an SPI-configurable high-resolution rotary position sensor for fast absolute angle measurement over a full 360-degree range from [ams AG](#). The AS5047D is equipped with revolutionary integrated dynamic angle error compensation (DAEC™) with almost 0 latency and offers a robust design that suppresses the influence of any homogenous external stray magnetic field. It also comes with an onboard header 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, 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 4 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	AS5047D - 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, highest reliability and durability, rotary magnet holder, and more
Interface	SPI
Compatibility	mikroBUS
Click board size	M (42.9 x 25.4 mm)
Input Voltage	3.3V or 5V

## Resources

[mikroBUS™](#)
[mikroSDK](#)
[Click board™ Catalog](#)
[Click Boards™](#)

## Downloads

[Magnetic Rotary 4 click example on Libstock](#)
[AS5047D datasheet](#)
[Magnetic Rotary 4 click 2D and 3D files](#)
[Magnetic Rotary 4 click schematic](#)

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