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Magnetic Rotary 5 Click

PID: MIKROE-5691

Magnetic Rotary 5 Click is a compact add-on board for accurate magnet-position sensing. This board features the AS5134, a contactless magnetic rotary encoder from ams AG for accurate angular measurement over a full turn of 360º. It is designed to provide accurate angle measurements with a simple two-pole magnet rotating over the center of the chip, featuring an integrated Hall element, analog front end, and digital signal processing. Offering a high resolution of 8.5 bits, which equates to 360 positions per revolution, it is also capable of high-speed performance, with a maximum RPM of 76875. It can accommodate a wide range of magnetic fields, from 20 to 80mT. It also has an onboard header for incremental and commutation signals of their respective A/B/I and U/V/W signals and pins for Daisy Chain Mode and OTP programming. This Click board™ is suitable for contactless rotary position sensing, rotary switches (human-machine interface), AC/DC motor position control, and brushless DC motor position control.

Magnetic Rotary 5 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.

Specifications

Type	Magnetic
Applications	Can be used for contactless rotary position sensing, rotary switches (human-machine interface), AC/DC motor position control, and brushless DC motor position control
On-board modules	AS5134 - contactless magnetic rotary encoder from ams
Key Features	Accurate angular measurement over a full turn of 360º, user programmable zero position and sensitivity, high speeds, data transmission via 3-wire or analog signal, incremental and commutation signal, low power consumption, daisy chain mode, and more
Interface	Analog,SPI
ClickID	Yes
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™

ClickID

Downloads

AS5134 datasheet

TXS0104E datasheet

Magnetic Rotary 5 click 2D and 3D files

Magnetic Rotary 5 click schematic

Magnetic Rotary 5 click example on Libstock