

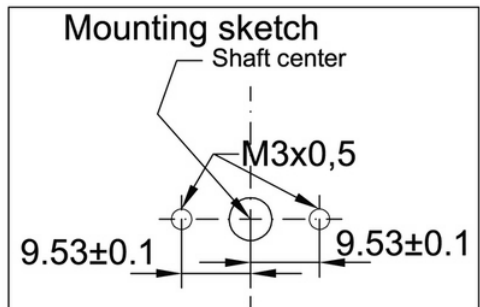
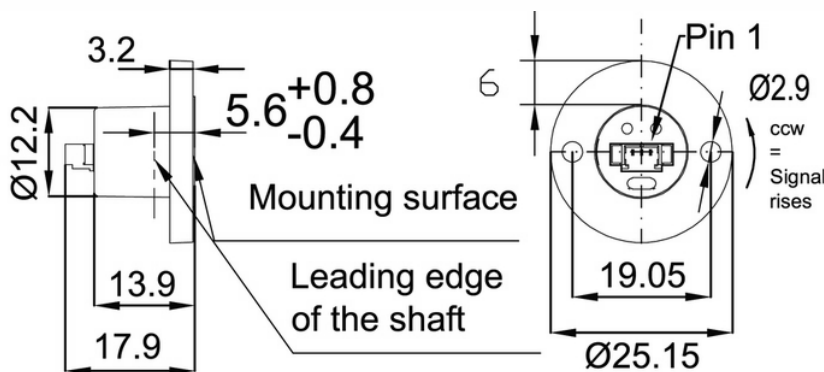
Series MAB12AH - Hall Effect Absolute Encoder

- 12 mm housing diameter
- Angle range 360°
- Resolution: 10 Bit or 12 Bit (only with PWM)
- Push-on magnet holder
- Shaft \varnothing 4mm, 6mm, 6,35mm
further on request

The MAB12A is a tiny encoder. The push-on magnet holder allows an easy mounting.



Drawing and Interface



Terminal lay-out and connector

Pin 1 +5VDC

Pin 2 Analog Out

Pin 3 GND

Connector in the sensor: Molex # 53398-0371

Counter connector housing: Molex # 51021-0300

Crimp pins for counter conn.: Molex # 50079-8100

Crimp tools: Molex # 50079

Axial mounting tolerance:

5,6 +0,8/-0,4 mm

failure insignificant

Radial mounting tolerance:

Excentricity max. failure / 360°

< 0,25 mm approx. 0,2°

< 0,5 mm approx. 0,6°

< 0,75 mm approx. 1,2°

Not included in delivery: Cable loom with flexible wires 500mm long

MEGATRON part no. 125722

Series MAB12AH - Hall Effect Absolute Encoder

Electrical Data

Output Signal	5 analog	5V PWM	
Resolution	12 Bit	10 Bit	12 Bit
Update Rate	0.38 ms	1.0 ms	4.1 ms
Electrical Angle Range	360°		
Supply voltage	5 VDC ± 10%		
Current Consumption (no load)	< 20 mA		
Signal Load	> 10 kOhm		

Mechanical Data

Max. Mechanical Rotation Speed	10.000 rpm
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Other Data

Protection Class	IP40
Operating Temperature	-40 ... + 125°C
Storage Temperature	-55 ... + 125°C
Housing Material	Plastic
Weight	approx. 20 g

Options and Order Description

Description	Options (Code)			
InfiniTurn with analog output, housing Ø 12 mm, hollow shaft	MAB12AH			
Shaft Ø : 6,35mm,6mm, 4mm further on request		6,35 6 4		
Resolution 10 Bit			10	
Resolution 12 Bit (only with option PWM)			12	
Supply Voltage / Output Signal: 5V ± 10% / 0-5V				. 0505
Option PWM (see last page)				0505PWM
Example:	MAB12AH	6	10	0505
MAB12AH, shaft diameter 6mm, resolution 10 Bit, supply 5V, signal 0-5V.				

Cable 3-pol with wire 500mm, AWG 28. MEGATRON part no. 125722

Our speciality are custom solutions for reasonable prices, even for small quantities

Examples: Shaft modifications, mechanical modifications, assembling of cables, connectors and more. Please contact us.

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Mounting

Step 1:



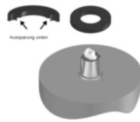
*Vorab Gewindebohrungen gem. Zeichnung positionieren.
Magnethalter bis zum Anschlag auf die Welle aufchieben.*

Step 2:



Sensorgehäuse aufsetzen

Step 3:



Befestigungsring aufsetzen (Ausparung unten)

Step 4:



*Befestigungsring festschrauben und ggf.
Nullpunktjustage durch drehen des Sensorgehäuses*

PWM - Pulse Width Modulation

PWM provides a constant carrier frequency which defines High to Low ratio. The ratio between high and low responds to the signal characteristics. It is in a fixed relation to the angle. Generally for further signal processing, no A/D converter is required because many microcontrollers already have PWM input.

10 Bit Version:

Frequency: 1000 Hz

Minimum Pulse Width: 1 μs

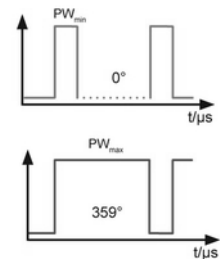
Maximum Pulse Width: 1024 μs

12 Bit Version:

Frequency: 244 Hz

Minimum Pulse Width: 1 μs

Maximum Pulse Width: 4096 μs



The specifications and information in this datasheet cannot consider all special demands that are caused by the application. Because of this, they are no general description of the properties of the product.

2012 January 25. All specifications are subject to change without notice.