

Encoders without bearings - absolute

Magnet rotor bore $\varnothing 6$ mm or M7 screw

Magnetic singleturn encoder kit 12 bit, analog

EAM500 analog



EAM500 analog

Technical data - electrical ratings

Voltage supply	8...30 VDC 12...30 VDC 5 VDC ± 10 %
Reverse polarity protection	Yes (8...30 VDC / 12...30 VDC)
Short-circuit proof	Yes (28 VDC or ground)
Consumption typ.	22 mA (24 VDC, 12 mA lout, w/o load, current output) 10 mA (24 VDC, w/o load, voltage output) 8 mA (5 VDC, w/o load, voltage output)
Initializing time	≤ 20 ms after power on
Interface	Analog 0...10 V / 0.5...4.5 V / 4...20 mA / Resolution: 12 bit
Function	Singleturn
Measuring range	30° ...360° See part number
Absolute accuracy	$\pm 1.8^\circ$ (+25 °C)
Sensing method	Magnetic
Interference immunity	DIN EN 61000-6-2
Emitted interference	DIN EN 61000-6-3

Features

- Encoder kit singleturn / Analog
- Contactless measuring method
- Flat design
- Maintenance-free for the entire service life
- Designed for harsh environmental conditions
- Operating temperature -40...+85 °C
- Resolution: 12 bit
- Redundant version available
- Protection IP 67, radial cable connection

Optional

- DEUTSCH or AMP connector on cable end on request

Technical data - mechanical design

Size (flange)	$\varnothing 50$ mm
Shaft type	$\varnothing 6$ mm (magnet rotor bore) M7 screw
Axial tolerance	1...3 mm
Radial tolerance	± 0.8 mm
Protection DIN EN 60529	IP 67
Operating speed	≤ 120 rpm
Materials	Housing: aluminium Magnet rotor: aluminium
Operating temperature	-40...+85 °C
Service life	No limitation
Resistance	DIN EN 60068-2-6 Vibration 20 g, 10-2000 Hz DIN EN 60068-2-27 Shock 50 g, 11 ms
Weight approx.	53 g
Connection	Cable 0.3 m, radial

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Part number

EAM500-KM . 7 M A

Operating temperature

A -40...+85 °C

Output characteristics

- 1 Increasing CW
- 2 Increasing CCW
- 3 Redundant, Ch1 increasing CW, Ch2 increasing CCW
- 4 Redundant, Ch1 increasing CCW, Ch2 increasing CW
- 5 Redundant, Ch1 increasing CW, Ch2 increasing CW
- 6 Redundant, Ch1 increasing CCW, Ch2 increasing CCW

Measuring range

A030 0°...30°
A060 0°...60°
A180 0°...180°
A270 0°...270°
A360 0°...360°

Voltage supply / signals

V6 12...30 VDC / Output 0...+10 VDC
C0 12...30 VDC / Output 4...20 mA
V3 8...30 VDC / Output 0.5...+4.5 VDC
R4 8...30 VDC / Output 0.5...+4.5 VDC redundant
V7 5 VDC ± 10 % / Output 0.5...+4.5 VDC ratiometric
R7 5 VDC ± 10 % / Output 0.5...+4.5 VDC ratiometric redundant

Connection

M Cable 0.3 m, radial

Protection

7 IP 67

Magnet rotor

- 7 M7 screw
6 Bore $\varnothing 6$ mm (cylinder)

Other measuring ranges by steps of 10° on request.

Other cable lengths with assembled DEUTSCH or AMP connector on request.

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Terminal significance	
+Vs	Encoder voltage supply
0 V	Encoder ground connection relating to +Vs
Iout	Current output, load: $<500 \Omega$
Uout	Voltage output Load resistor: $>3 \text{ k}\Omega$ between Uout / 0 V

Terminal assignment		
Cable		
Core color	Signal	Description
White	0 V	Ground
Brown	+Vs	Voltage supply
Green	Uout/Iout	Output
Cable data: $3 \times 0.25 \text{ mm}^2$		
Cable / redundant version		
Core color	Signal	Description
White	0 V1/2	Ground 1/2
Brown	+Vs1	Voltage supply 1
Green	Uout1	Output 1
Yellow	+Vs2	Voltage supply 2
Grey	Uout2	Output 2
Cable data: $5 \times 0.25 \text{ mm}^2$		

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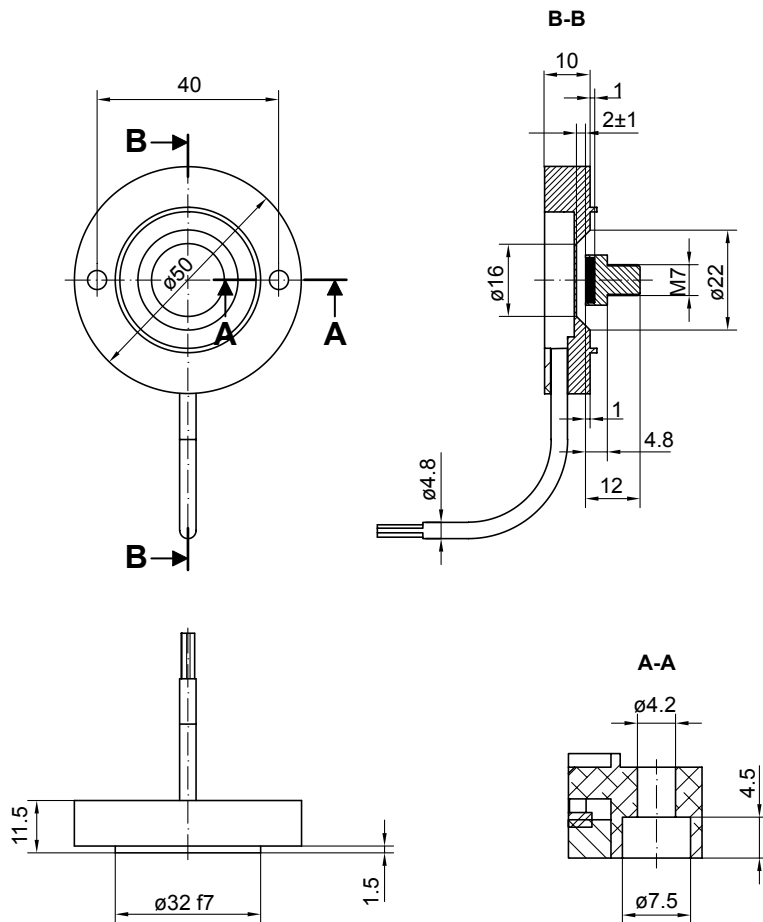
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Dimensions

Magnet rotor, M7 screw



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