

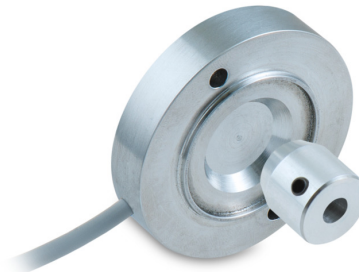
EAM500-K - analog

Magnet rotor bore ø6 mm or M7 screw

Magnetic singleturn encoder kit 12 bit, analog

Overview

- 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



Technical data

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 (14 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	±1.8 ° (+25 °C)
Sensing method	Magnetic
Interference immunity	EN 61000-6-2
Emitted interference	EN 61000-6-3

Technical data - mechanical design

Size (flange)	ø50 mm
Shaft type	ø6 mm (magnet rotor bore) M7 screw
Axial tolerance	1 ... 3 mm
Radial tolerance	±0.8 mm
Protection EN 60529	IP 67
Operating speed	≤120 rpm
Material	Housing: aluminium Magnet rotor: aluminium, anodised
Operating temperature	-40...+85 °C
Service life	No limitation
Resistance	EN 60068-2-6 Vibration 20 g, 10-2000 Hz EN 60068-2-27 Shock 50 g, 11 ms
Weight approx.	53 g
Connection	Cable 0.3 m, radial

Optional

- DEUTSCH or AMP connector on cable end on request

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Terminal assignment

Cable

Core color	Signal	Description
White	0 V	Ground
Brown	+Vs	Voltage supply
Green	Uout/Iout	Output

Cable data: 3 x 0.25 mm²

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 x 0.25 mm²

Terminal significance

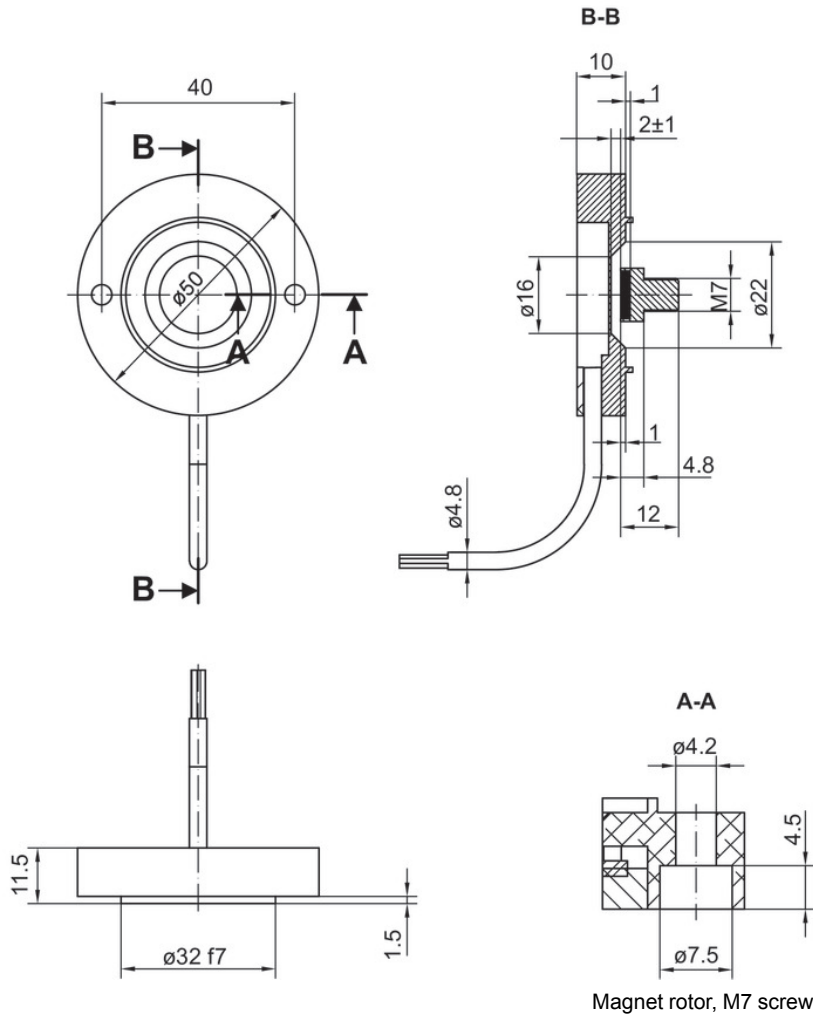
+Vs	Encoder voltage supply
0 V	Encoder ground connection relating to +Vs
Iout	Current output, load: <500 Ω
Uout	Voltage output Load resistor: >3 kΩ between Uout / 0 V

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Dimensions

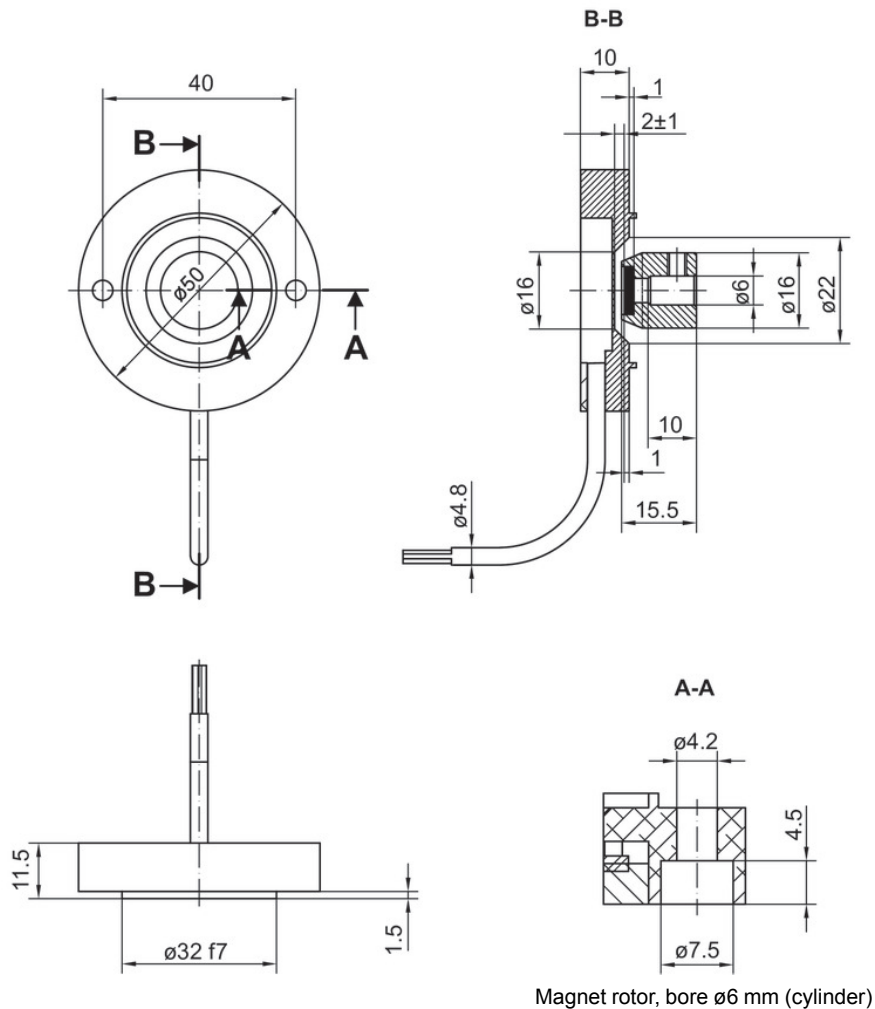


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Dimensions



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Ordering reference

	EAM500	-	K	M	##	.	7	M	##	.	####	#	.	A
Product	EAM500													
Shaft type														
Kit				K										
Flange (kit)														
Flat mounting flange, ø40 mm				M										
Magnet holder / bore diameter														
ø6 mm					6									
M7 screw					7									
Protection class														
IP 67							7							
Connection⁽¹⁾														
Cable radial, 0.3 m								M						
Voltage supply / interface														
12...30 VDC, current output 4...20 mA									C0					
8...30 VDC, voltage output 0.5...4.5 V redundant									R4					
5 VDC ±10%, voltage output 0.5...4.5 V ratiometric, redundant									R7					
8...30 VDC, voltage output 0.5...+4.5 V									V3					
12...30 VDC, voltage output 0...10 V									V6					
5 VDC ±10%, voltage output 0.5...4.5 V ratiometric									V7					
Measuring range⁽²⁾														
0...30°												A030		
0...60°												A060		
0...180°												A180		
0...270°												A270		
0...360°												A360		
Output characteristics														
One-channel, rising CW													1	
One-channel, rising CCW													2	
Redundant, CH1 rising CW, CH2 rising CCW													3	
Redundant, CH1 rising CCW, CH2 rising CW													4	
Redundant, CH1 rising CW, CH2 rising CW													5	
Redundant, CH1 rising CCW, CH2 rising CCW													6	
Operating temperature														
-40...+85 °C														

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

(2) Other measuring ranges by steps of 10° on request.