

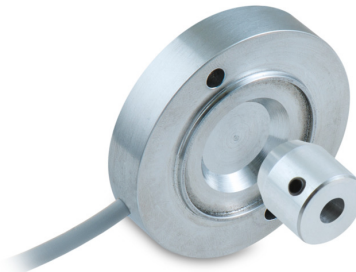
## EAM500R-K - analog

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
- Magnetic rotor included in delivery



### 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/lout	Output

Cable data: 3 x 0.25 mm<sup>2</sup>

#### 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 mm<sup>2</sup>

### Terminal significance

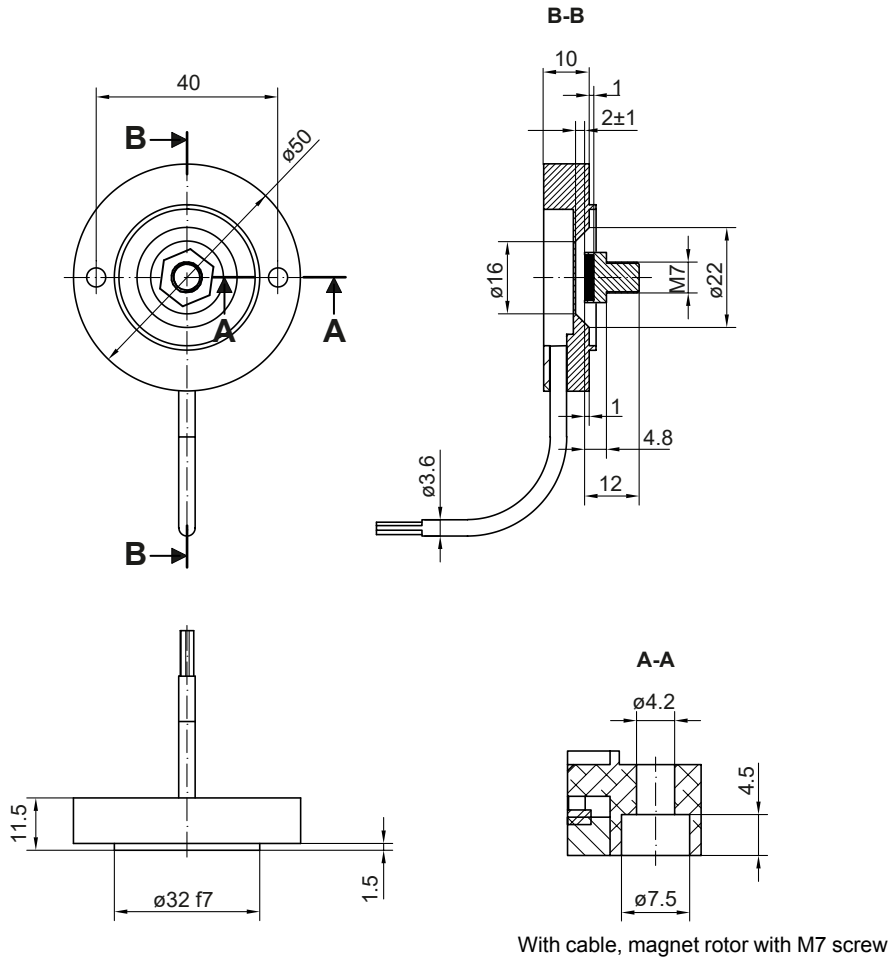
+Vs	Encoder voltage supply
0 V	Encoder ground connection relating to +Vs
lout	Current output, load: <500 $\Omega$
Uout	Voltage output Load resistor: >3 k $\Omega$ between Uout / 0 V

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## Dimensions

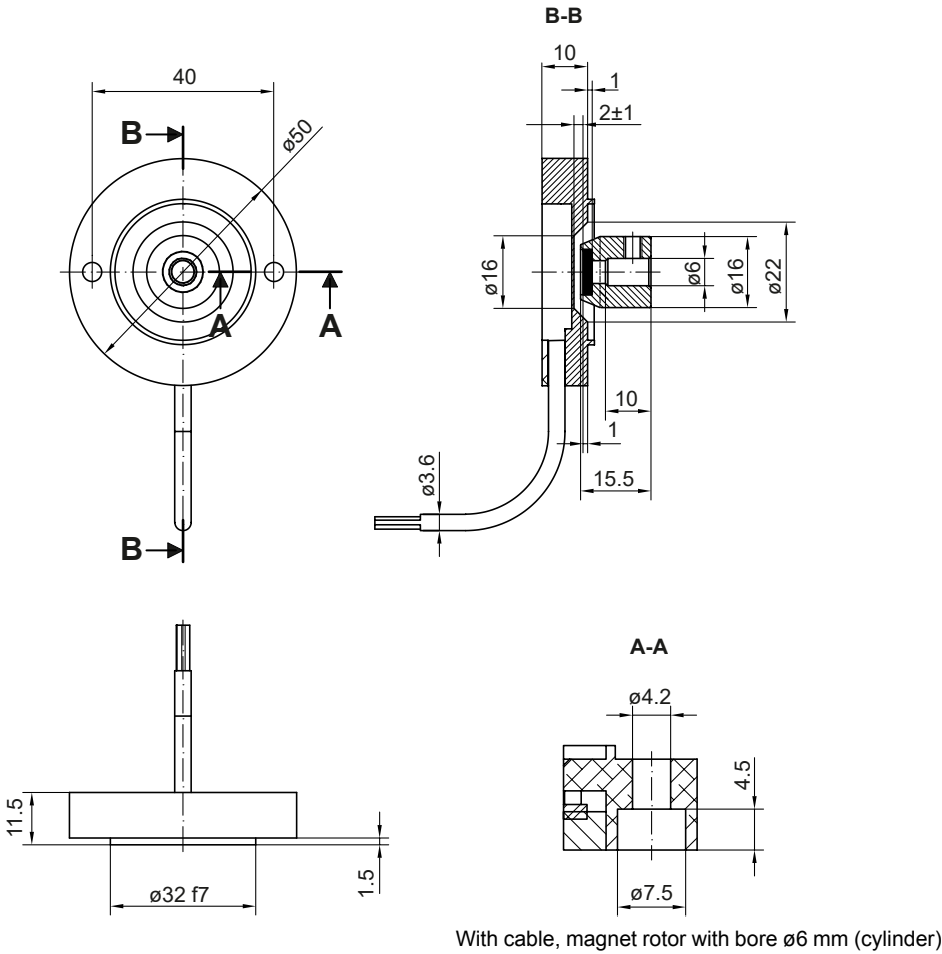


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## Ordering reference

	EAM500R	-	K	M	##	.	7	M	##	.	####	#	.	A
<b>Product</b>	EAM500R													
<b>Shaft type</b>														
Kit														
<b>Flange (kit)</b>														
Flat mounting flange, ø40 mm														
<b>Magnet holder / bore diameter</b>														
ø6 mm														
M7 screw														
<b>Protection class</b>														
IP 67														
<b>Connection<sup>(1)</sup></b>														
Cable radial, 0.3 m														
<b>Voltage supply / interface</b>														
12...30 VDC, current output 4...20 mA														
8...30 VDC, voltage output 0.5...4.5 V redundant														
5 VDC ±10%, voltage output 0.5...4.5 V ratiometric, redundant														
8...30 VDC, voltage output 0.5...+4.5 V														
12...30 VDC, voltage output 0...10 V														
5 VDC ±10%, voltage output 0.5...4.5 V ratiometric														
<b>Measuring range<sup>(2)</sup></b>														
0...30°														A030
0...60°														A060
0...180°														A180
0...270°														A270
0...360°														A360
<b>Output characteristics</b>														
One-channel, rising CW														
One-channel, rising CCW														
Redundant, CH1 rising CW, CH2 rising CCW														
Redundant, CH1 rising CCW, CH2 rising CW														
Redundant, CH1 rising CW, CH2 rising CW														
Redundant, CH1 rising CCW, CH2 rising CCW														
<b>Operating temperature</b>														
-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.