

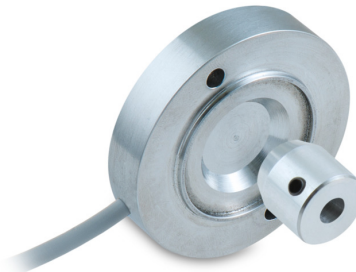
EAM500-K - analog

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/lout	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

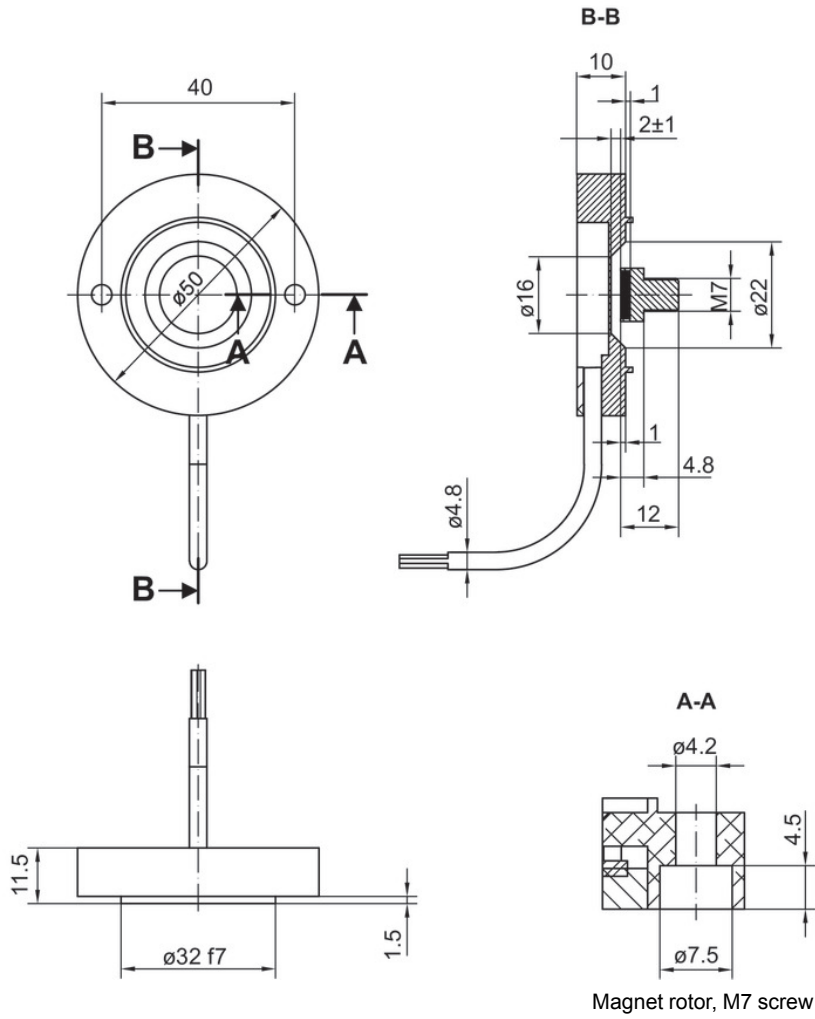
+Vs	Encoder voltage supply
0 V	Encoder ground connection relating to +Vs
lout	Current output, load: <500 Ω
Uout	Voltage output Load resistor: >3 k Ω between Uout / 0 V

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Dimensions

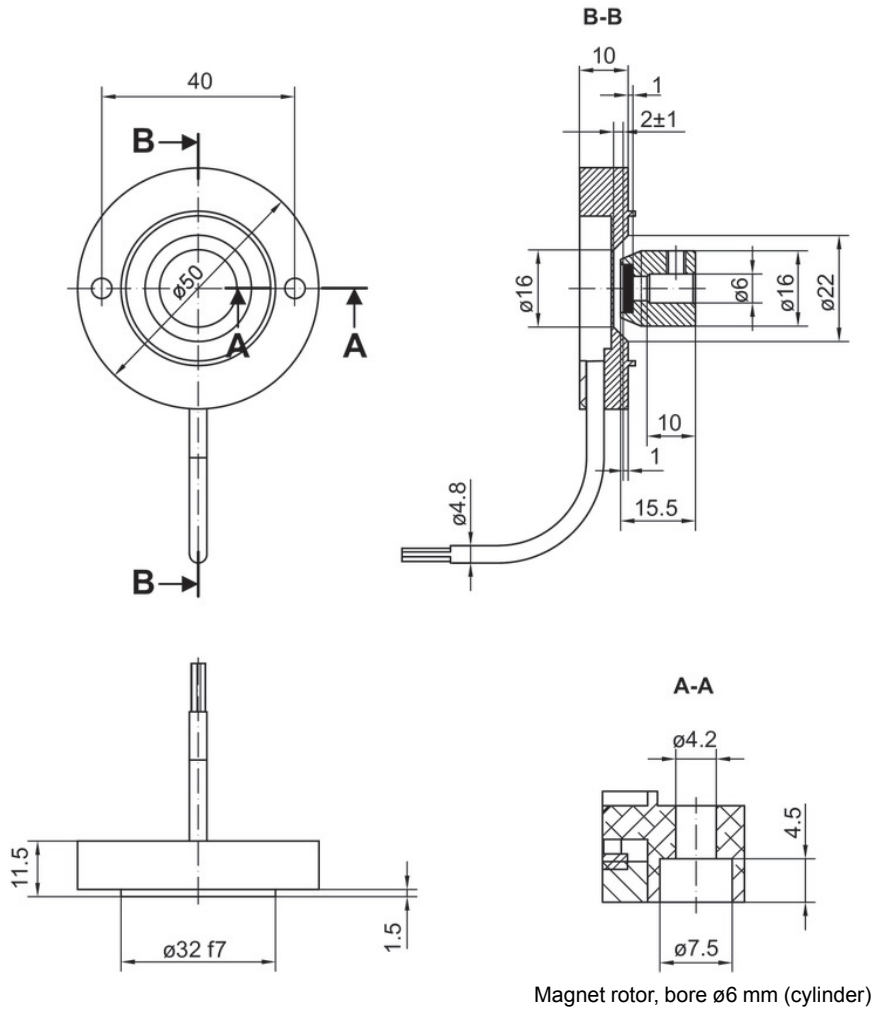


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Dimensions



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Ordering reference

	EAM500	-	K	M	##	.	7	M	##	.	####	#	.	A
Product	EAM500													
Shaft type														
Kit														
Flange (kit)														
Flat mounting flange, ø40 mm														
Magnet holder / bore diameter														
ø6 mm														
M7 screw														
Protection class														
IP 67														
Connection⁽¹⁾														
Cable radial, 0.3 m														
Voltage supply / interface														
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														
Measuring range⁽²⁾														
0...30°														A030
0...60°														A060
0...180°														A180
0...270°														A270
0...360°														A360
Output characteristics														
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														
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.