

# ROTAMAG

Bearingless encoder

Series

SMAB • MRAB



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- Low profile ring encoder
- Contactless magnetic sensing
- Resolution up to 18 bit
- SSI output
- Robust design with IP68 protection
- Hollow shaft diameter Ø80mm (Ø95 on request)

## ENVIRONMENTAL SPECIFICATIONS

Operating temperature range:	-25°C +85°C (-13°F +185°F)
Storage temperature range:	-25°C +85°C (-13°F +185°F)
Protection:	IP68
Option:	• Protection IP69K

## MECHANICAL SPECIFICATIONS

Dimensions:	see drawing
Hollow shaft diameter:	80 mm
Shaft rotational speed:	6000 rpm max. (mechanical)
Moment of inertia:	5,98 x 10 <sup>-4</sup> kg m <sup>2</sup>
Gap sensor-ring:	0,1 - 0,6 mm
Electrical connections:	M12 8 pin inline plug or Lika Hi-flex cable 1,0 m
Weight:	~ 320 g (11,2 oz)
Option:	• additional cable

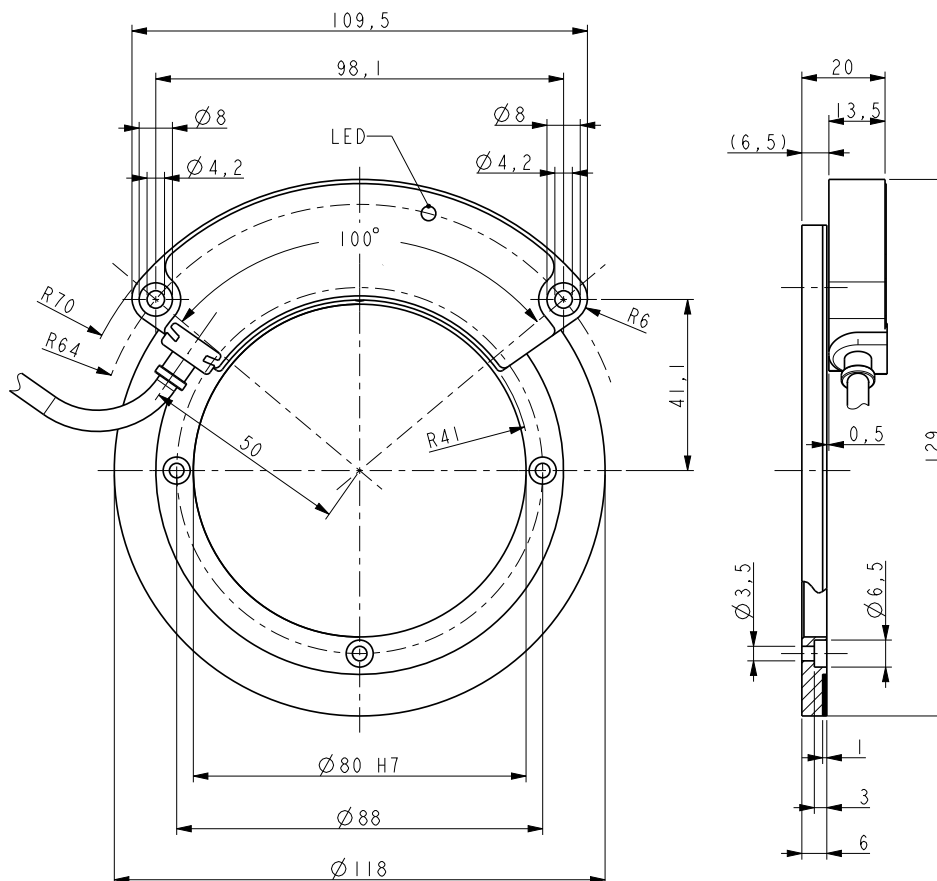
## ELECTRICAL SPECIFICATIONS

Resolution:	65536, 262144 cpr
Accuracy:	± 0,15° typ. (± 0,2° max.)
Repeatability:	± 1 count
Output circuits:	SSI, MSB aligned, clock rate max 2MHz Position refresh up to 10000 rpm
Output code:	Gray, Binary
Power supply:	+5Vdc ± 5%, +10Vdc ÷ +30Vdc
Protection:	against inversion of polarity (except 5V version) and short-circuit
EMC:	electro-magnetic immunity, EN 61000-4-2 EN 61000-4-4
Functions:	• Counting direction • Zero setting /Preset

## MATERIALS

Sensor housing:	anticorodal, UNI EN AW-6082
Ring:	stainless steel AISI 420 + plastoferrite

Specifications subject to changes without prior notice



SMAB • MRAB

Order code - Sensor

SMAB	-	XXX Ⓐ	-	XX Ⓑ	-	XXX Ⓒ	-	/Sxxx Ⓓ
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<p>Ⓐ OUTPUT CIRCUITS</p> <p>GG1 = SSI, Gray MSB aligned, +5Vdc ±5%</p> <p>GG2 = SSI, Gray MSB aligned, +10Vdc +30Vdc</p> <p>BG1 = SSI, Binary MSB aligned, +5Vdc ±5%</p> <p>BG2 = SSI, Binary MSB aligned, +10Vdc +30Vdc</p>	<p>Ⓑ RESOLUTION</p> <p>16 = 65536 cpr</p> <p>18 = 262144 cpr</p>	<p>Ⓒ CONNECTIONS</p> <p>L1 = cable output 1 m</p> <p>M0,5 = cable output x m</p> <p>M2 = 2 m cable + M12 8 pin inline plug</p>	<p>Ⓓ CUSTOM VERSION</p>
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Order code - Magnetic ring

MRAB/118	-	XXX Ⓐ	-	XXX Ⓑ	/Sxxx Ⓒ
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<p>Ⓐ MAGNETIC CODING</p> <p>64N = 64 poles</p>	<p>Ⓑ INSIDE DIAMETER</p> <p>80 = 80 mm</p>	<p>Ⓒ CUSTOM VERSION</p>
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