

# Rotary Absolute Magnetic Encoder System

TRUE  
ABSOLUTE  
SYSTEM

ROBUST  
IP67  
DESIGN

HIGH  
REVOLUTION  
SPEED /  
RESOLUTION

## COMING SOON

The rotary absolute magnetic encoder system is designed for motion control applications as an angle and velocity control loop feedback element. A highly reliable measurement principle and processing deliver low position latency, high resolution and angular velocity. The robust design protects the readhead and magnetic ring against the ingress of liquid and high temperature, allowing them to remain undamaged even in extremely contaminated and hot environments.



## Why choose Rotary absolute magnetic encoder system?

### FEATURES:

- ✓ True absolute after power-on
- ✓ Operating temperature from -20 °C to +85 °C
- ✓ Resolution up to 23 bits
- ✓ Revolution speed up to 25,000 rpm
- ✓ Ring size up to OD 325 mm

### BENEFITS:

- ✓ Wide operating temperature range
- ✓ Simple and fast installation
- ✓ Robust EMC and IP67 construction
- ✓ SSI and BiSS C output
- ✓ Self-monitoring and set-up LED



MACHINE  
TOOL



ASSEMBLY  
LINES



INDUSTRIAL  
AUTOMATION



MOTOR  
CONTROL



HARSH  
ENVIRONMENT

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# Key technical specifications



READHEAD	ENCLOSED	PCB-A MODULE
Supply voltage	4.5 to 30 V	4,5 to 30 V
Output communication protocols	BISS C or SSI	BISS C or SSI + parallel quadrature ABZ
Computational latency	10 µs	10 µs
Operating temperature	-20 °C to 85 °C	-20 °C to 85 °C
Environmental protection	IP67	Humidity - Up to 70 % non-condensing
Housing material	Aluminium (Eloxal - anodised)	-
Connection	M12 - 8 way; Flying leads; D SUB 9;	Molex locking 12 way

## Compatibility with absolute magnetic rings



ABSOLUTE RINGS	EXPOSED	COMPLETELY SEALED
Description	Absolute magnetic ring - exposed elasto-ferrite	Absolute magnetic ring - completely welded
Environment	Dirt, dust, humidity	IP67 - oils, coolants, grease
Operating temperature	-20 °C to 85 °C	-20 °C to 85 °C
Material	Solid stainless steel base + elasto-ferrite layer	Solid stainless steel hub + elasto-ferrite layer + welded foil

RING OD / ID	MAX RESOLUTION - CPR	SYSTEM ACCURACY	MAX SPEED (SEALED RING)
80 mm / 60 mm	2,097,152 / 21 bits	±40 mdeg	25,000 rpm
114.2 mm / 95 mm	2,949,120	±30 mdeg	18,000 rpm
162 mm / 143 mm	4,194,304 / 22 bits	±25 mdeg	13,000 rpm
229 mm / 180 mm	5,898,240	±20 mdeg	10,000 rpm
325 mm / 220 mm	8,388,608 / 23 bits	±15 mdeg	5,000 rpm

For more information visit [www.rls.si](http://www.rls.si) to contact your nearest sales representative.

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