

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



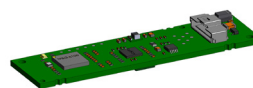
HARSH
ENVIRONMENT

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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 to contact your nearest sales representative.

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