

CUSTOM

INDUCTIVE POSITION SENSORS

Your partner for position sensing applications



WHAT IS IT

Position sensors convert motion into data, providing essential feedback for applications like industrial automation, robotics, and automotive systems. They are the measurement solution for encoders, torque, liquid level, proximity, and thickness sensors

THE COMPETITORS

- ✓ **Difficult integration:** Many competitors offer off-the-shelf products, that usually do not fit exactly customers requirements.
- ✓ **Slow design:** Suppliers offering custom sensors often rely on third-party technologies, which increases design times and delays sample delivery.
- ✓ **Limited innovation:** Many manufacturers still rely on traditional technologies, without leveraging advanced design and simulation algorithms, limiting sensor performance.



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iEncoder



Custom Design

Tailored solutions for your specific needs in terms of dimensions and sensor type (rotary, linear, arc).



Easy Integration

With or without the sensor case and bearing, to fit into existing machines and tight spaces.



High Accuracy

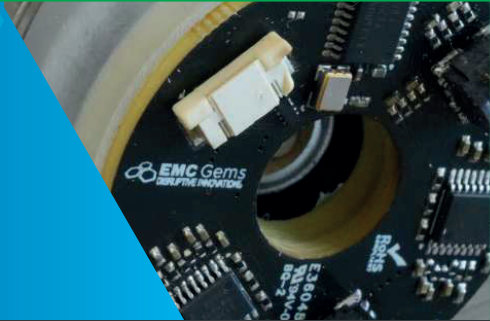
The design is optimized through computer-based physics simulation combined with generative AI.



Cost-effective Solution

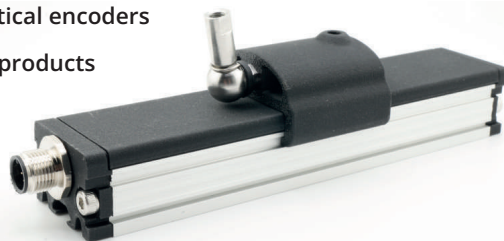
More affordable alternative to magnetic or optical sensors, delivering high precision and reliability at a fraction of the cost.

INDUCTIVE ENCODERS



APPLICATIONS

- ✓ Absolute encoder for large-diameter shafts
- ✓ Position and speed control with stepper, BLDC, and servo motors
- ✓ Monitoring of the high-speed and low-speed shafts of a gearbox
- ✓ Accurate rotor pole position for commutation
- ✓ Replacement for LVDTs, resolvers, and optical encoders
- ✓ Retrofitting and revamping of systems or products
- ✓ Position sensing of valves and actuators
- ✓ Level and thickness sensors



TECHNICAL INFORMATION

| | |
|------------------------------------|----------------------------------------------------------------------|
| Accuracy | up to $\pm 0.0031\%$ FS |
| Angle sampling rate | from 0 to 10 kHz |
| Temperature range | from $-40\text{ }^{\circ}\text{C}$ to $+130\text{ }^{\circ}\text{C}$ |
| Output | analog (sin/cos), SPI, other |
| Safety | ASIL C e D optional (redundant) |
| Number of poles | from 1 to 128 |
| Largest diameter | from 8 mm to 250 mm |
| Hole diameter | from 0 mm to 230 mm |
| Gap between fixed and movable part | from 0.2 mm to 3 mm |
| Total thickness | < 10 mm |
| Output connector | custom |
| Total weight | from 10 g to 100 g |
| Power supply | 3.3V DC / 5V DC / custom |
| Current consumption | < 40 mA |
| Certification | RoHS, EN 61000-4-2 |
| MTTF | 2,000,000 h at $30\text{ }^{\circ}\text{C}$ |