

The purpose of a magnetic encoder is to convert a mechanical angular position into an electrical signal (analog or digital) with very high precision.

Vishay MCB has developed highly innovative technologies to address this application across a large performance spectrum.

Whether an analog or digital output is needed, the principle of operation remains the same.

The rotor is composed of an array of several magnetic tracks. The magnetic fields are read by the Hall Effect cells mounted on the stator. This allows the absolute position of the rotor to be determined (Fig. 1).

Vishay's patented technology allows highly accurate, real-world position information to be determined electronically.

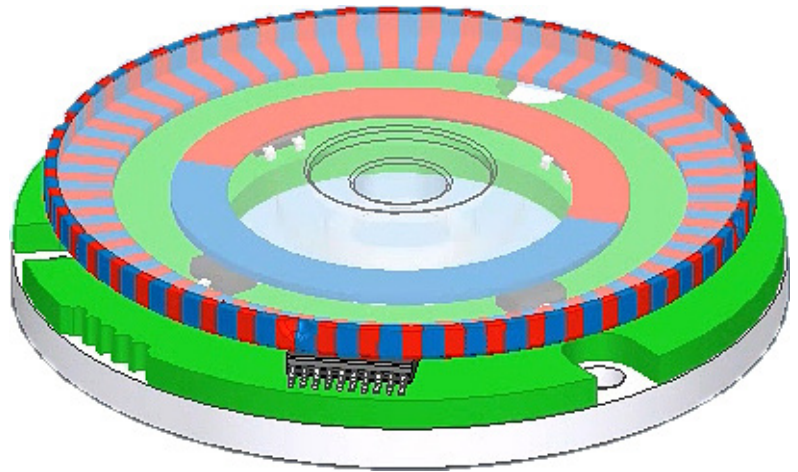


Fig. 1

Just how accurate are Vishay's magnetic encoders? The diagrams below explain.

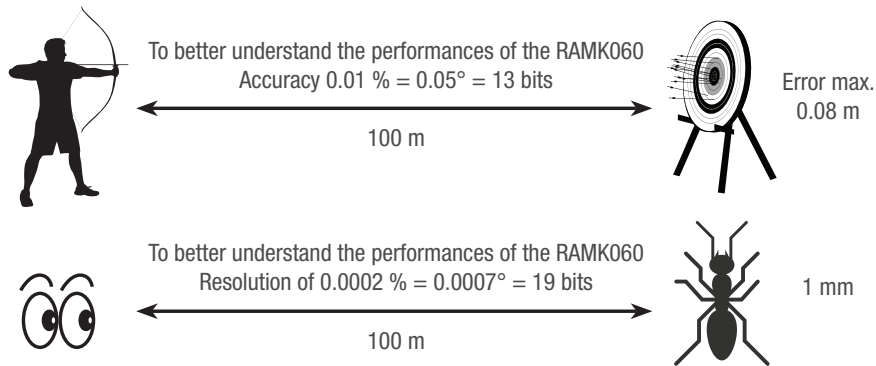


Fig. 2

Applications

- **Robotic devices:** industrial robots, human robot collaboration, automated guided vehicles
- **Industrial market:** machine tools
- **Military devices:** gimball and guidance functions in missiles, gimball in optronic devices
- **Renewable energy:** pitch and yaw control on windmills, solar panel position control
- **Aeronautic:** side stick unit, incidence probe, actuators