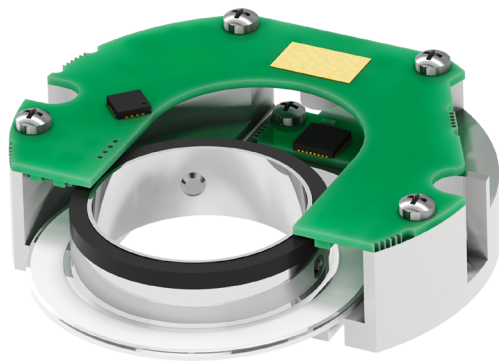


New AMM5 Kit Encoder with Batteryless Multiturn Tracking

Thanks to the integration of the Energy Harvesting Technology, the AMM5 high-resolution kit encoder does not need batteries and mechanical gears for multiturn tracking, so it can be even more compact and precise.



- Battery-free revolution counter
- No gears no wear no battery concerns
- Outer diameter 55 mm / 2.165", through hollow shaft 25 mm / 0.984"
- Up to 23 bit singleturn and 16 bit true multiturn absolute positioning
- SSI, BiSS, and SPI interfaces

The **AMM5** from Lika Electronic is the large shaft **frameless encoder** designed for installation on high-dynamics applications that require precise motion control. It is typically intended for integration into industrial robots needing high performance and minimum footprint. It is designed in an open easy-to-install **PCB structure** to fit comfortably the most constricted spaces. The **through hollow shaft offers a large internal diameter** (25 mm / 0.984" through hollow bore) and enables contactless mechanics without integral bearings, thus it is unaffected by wear, friction, fatigue, and mechanical stresses. The construction is frameless and modular, i.e. it is not equipped with shaft, bearings, flange, and housing. Rotor and stator have no moving parts and work together without contact. The risk of failures due to vibration, shocks, or mechanical stresses is limited; while the lack of wear eliminates machine downtimes and maintenance. Less mechanical components allow to reduce the overall footprint and the weight of the encoder as well as its cost. It rely on optical measuring principle and does not suffer magnetic interferences.

Thanks to the **Energy Harvesting Technology** to produce electricity and power the multiturn counter, it is not equip-

ped with multiturn gear mechanisms and even batteries, so the overall footprint and weight can be reduced further compared to common geared multiturn versions.

The use of the Energy Harvesting Technology and the elimination of the gears provide not only more compactness, but also reduce the issues related to wear and increase the accuracy of the measuring system.

The AMM5 kit encoder has a singleturn resolution up to 23 bits (8,388,608 cpr) and a number of 65,536 revolutions. It can be equipped with SSI, BiSS, and SPI serial absolute interfaces and provides also additional 1Vpp Sine-Cosine signals for speed feedback.

The AMM5 encoder is ideal for **integration into space critical applications requiring reliability and accuracy** such as *robots, robotic joints, hollow shaft motors* (direct drive torque motors, ...), *brushless and servo motors, automated guided vehicles (AGVs, AMRs, ...)*, *electromedical and surgical equipment* (medical tests robotic machines, surgical and diagnostic robots, biomedical and prosthetic systems, electro-medical automation and laboratory instruments, pharmacy automation), *OEM equipment*.