

Explore our range of rotary optical Kit Encoders!

Lika Electronic designs and manufactures a full line-up of **rotary optical kit encoders for direct integration into robotic systems** (for instance, surgical and diagnostic robots), *cobots, robotic joints, servomotors, direct drive torque motors as well as into UAVs/drones, electromedical devices, and a variety of motion control systems.*

They are designed in several sizes and shapes and offer a wide selection of customizable specifications and technologies to fit special requirements.

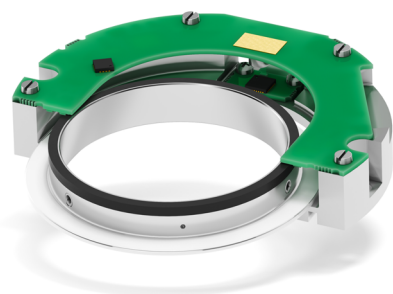
Kit encoders are frameless and bearingless and excel in compact size, low profile, minimum weight.

The optical technology allows them to achieve high resolution and fine accuracy for a very precise and safe control over movement, rotation, and positioning.

Contactless operation reduces machine downtimes and maintenance.

- Optical sensing technology and contactless operation
- Several sizes and shapes, hollow and blind shafts, 6 mm / 0.236" to 45 mm / 1.771"
- Minimum footprint and weight, high resolution and accuracy
- Incremental, UVW, 1Vpp Sine/Cosine, SSI, BiSS, SPI, and RS-485 interfaces

AMM80

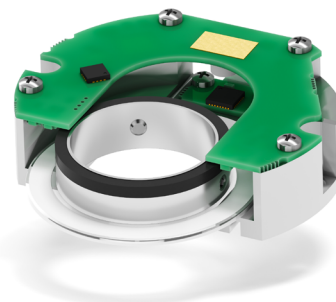


AMM80 is **compact, slim, and frameless** and has a large through hollow shaft that fits diameters up to 45 mm / 1.771". It can be installed easily and quickly thanks to the pilot flange or the two precision pins and does not need calibration. It provides position feedback via SSI, BiSS, and RS-485 interfaces. It can be singleturn and multiturn.

The resolution is up to 23 bit singleturn and 16 bit multiturn, the accuracy is $\pm 0.010^\circ$.

An additional incremental track offers 1,024 Sine/Cosine 1Vpp signals for speed feedback and interpolation needs.

AMM5B

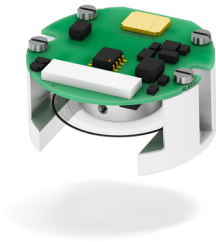


AMM5B comes in a very compact and flat frameless package (thickness is less than 15 mm / 0.59") and is **ideally suited for installation in constricted spaces.**

The hollow shaft offers a large internal diameter (24 mm / 0.945" through hollow bore) and enables contactless mechanics without integral bearings, thus it is unaffected by wear, friction, fatigue, and mechanical stresses.

AMM5B encoder **can be both singleturn and multiturn.** Singleturn resolution can be 17 to 23 bits. In multiturn versions, the number of revolutions is 65,536. It provides SSI, BiSS, and RS-485 interfaces and adds Sine/Cosine 1Vpp signals for speed feedback (512 sinusoidal signals per revolution).

AMM36

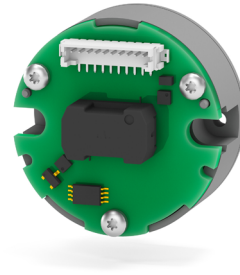


AMM36 combines high resolution and precision with compact size and minimum weight. It is perfect, for example, for the **smallest robotic joints and for the rotary end effectors**. It has a diameter of 35 mm / 1.378" and a thickness of 18 mm / 0.708"; the weight is less than 20 g / 0.70 oz. It can be installed on 6 mm / 0.236" diameter shafts and does not need any calibration procedure.

AMM36 is available in both singleturn and multiturn versions. It offers a singleturn resolution up to 22 bits and up to 65,536 revolutions and provides the position information via **SSI, BiSS, and RS-485 interfaces**.

It also produces additional **Sine/Cosine 1Vpp signals** (256 sinusoidal signals per revolution) **for speed feedback**.

AMM33



AMM33 is perfect for motors and robotic applications thanks to the **integrated Energy Harvesting Technology** and the wide operating temperature range (-40°C +115°C / -40°F +239°F). It has a very compact, light-weight (~22 g / ~0.77 oz), bearingless design and can be easily integrated into applications in tight and constricted spaces where the weight reduction is a primary concern.

The outer diameter is 33 mm / 1.3" and the blind hollow shaft is 6 mm / 0.236". AMM33 is **absolute and multiturn and can be equipped with SSI and BiSS interfaces**.

Singleturn resolution up to 18 bits, number of revolutions up to 24 bits. Thanks to the Energy Harvesting Technology the multiturn tracking is **batteryless and gearless**, so the encoder can be even more light and compact and reduces the risk of mechanical issues.

Lika Electronic has long-standing experience in encoders and position measurement industry and can develop **customer-specific solutions** that meet individual needs concerning size, shape, shaft diameter, resolution, interface, connection, and operational environment. If you need more information please **contact our Sales team**.

