Incremental and absolute linear encoders from Lika

Lika Electronic's incremental and absolute linear encoders combine a **miniaturized and rugged design** with **contact-free and wear-free operation** and ensure precise and reliable position and speed feedback in industrial applications and even in the harshest environments.

They employ the magnetic sensing technology, thus their operation is contactless and does not suffer wear.

They do not mount moving parts and almost all the mechanical components of a rotary encoder (flange, shaft, bearings, etc.) are not installed.

The use of both limited mechanical parts and miniaturized circuits allows to minimize the overall footprint of the measuring systems. Furthermore the magnetic technology is highly immune to external interferences such as light, oil, grease, water, chemical contaminants, etc. and enables to easily adopt PCB protection methods such as encapsulating, tropicalization, conformal coating, varnishing.

In this way the linear encoders can achieve the **highest protection rates (IP67 to IP69K)** and reliably operate in the harshest industrial environments.

Linear encoders have a modular structure, they basically consist of a readhead and a magnetic tape that are not in contact, so the risk of failures due to vibrations, shocks, or mechanical stresses is limited.

Their design and features also ease installation and enable minimum mounting time.

It is also worthy of remark that linear encoders with SSI serial interface (the whole absolute range) can be paired with IF55 gateways and easily integrated into the most popular industrial Ethernet networks: Profinet, EtherNet/IP, POWERLINK, EtherCAT, and MODBUS-TCP (but also into conventional fieldbuses: CANopen, Profibus, and Device-Net). So they are ideally suited for installation in case of plant retrofit and in tight spaces.

Lika's range includes a wide variety of both incremental and absolute linear encoders, as well as a number of solutions dedicated to custom applications such as encoders for toothed racks, encoders for UHV installations, and guided encoders.

Among the choice are:
- **digital (HTL and TTL) and Sine/Cosine** incremental encoders, resolution down to 0.5 μm and measuring lengths virtually without limits (SME, SMS, ...);
- they can be equipped with **limit switch and reference marks** (also external);
- absolute encoders with **SSI, BiSS, analogue, MODBUS, CANopen,** ... interfaces, resolution down to 0.29 μm and measuring lengths up to 19.3 m / 63.32 ft (SMA2, SMA3, SMA5, ...);
- SSI encoders can be paired with IF55 gateways for installation in all Ethernet and fieldbus networks;
- **SMA3 absolute encoder with Multi Adaptive Range Sensor** (it can read poles having custom width);
- programmable incremental and absolute encoders (SME54, SMAX, SMAZ);
- miniature incremental and absolute encoders for robotics, handling systems, electro-medical devices, even in frameless version for OEM integration.