

DRAW-WIRE ENCODERS FOR UNUSUAL MEASURING REQUIREMENTS

Lika Electronic offers a complete range of draw-wire encoders. They can be optical or magnetic, with incremental, absolute, or analogue outputs (a potentiometer can also be integrated) and a choice of measuring lengths from 300 mm (0.984 ft) up to 50 m (164 ft).

Draw-wire encoders are ideally suited for unusual measuring requirements and can replace conventional encoders in many applications.

For example, they can be a good solution when the operational space is constricted or the environmental conditions are severe (plagued by dirt, high temperature, moisture, etc.). The encoder housing, in fact, can be mounted away from the wire and the axis being tracked, in a safe, easily accessible, and adequately protected place. While the measuring wire requires small space and can be subjected to harsher conditions.

Another unique property of draw-wire encoders is that they can measure linear distance even with indirect measuring paths. When the measuring path is not a straight line, small pulleys or guide rollers can be used to create diversions without jeopardizing the measurement's integrity.

Wire-actuated encoders are an ideal solution for applications with intermittent measuring requirements, they include *mobile equipment and*

construction machinery (outriggers, stabilizers, arches), telescopic cranes, excavators, forklifts, guided vehicles, agricultural and forestry machinery and equipment, scissor lifts, car lifts, loading platforms, warehouses, and electro-medical equipment (scanners, operating and examination tables, hospital beds, dentist's chairs, etc.).

Draw-wire-encoders are available in a very large selection of mechanical versions and interfaces.

- With programmable incremental encoder **(SFEM1 & SFEM2)**
Resolution down to 0.01 mm / 10 µm (16,384 PPR), universal output circuit HTL/TTL, fully configurable according to needs via free software tool.
- With SSI and analogue absolute encoder **(SFAS1, SFAM1, & SFAM2)**
Resolution down to 0.012 mm / 12 µm; analogue version with TEACH-IN keys and overrun safety function, current and voltage options.
- With Ethernet and fieldbus absolute encoder **(SFAM1 & SFAM2)**
Profinet, EtherNet/IP, EtherCAT, POWERLINK, MODBUS TCP, Profibus, CANopen, DeviceNet, MODBUS RTU. This makes Ethernet technology available in the most uncomfortable conditions (the smallest rooms, harsh industrial environments).
Resolution down to 0.024 mm / 24 µm, full set of configuration and

diagnostic parameters: position and speed readout, full scaling, preset, code sequence, extended diagnostics, Ethernet and bus network settings.

- With potentiometer **(SFPS)**
Resistance values from 1 to 20 kΩ, current and voltage output.
- With ATEX incremental and absolute encoder **(SAK & SBK)**

Category 2 ATEX encoder for use in zones 1, 2, 21, 22 and Category 3 ATEX encoder for use in zones 2, 22 with ultra-rugged housing, oversized frame walls and IP65 sealing.

- Special encoder versions
Designed for individual applications such as towing encoders for the shipbuilding industry, marine installations, and offshore facilities with stainless steel housings and special surface treatments and seals for saltwater and corrosion protection.

[Check out Lika's full cable-pulling encoder](#)

