

Some notes on draw-wire encoders and their new order codes

Lika Electronic offers a complete range of draw-wire encoders.

Encoders driven by a draw wire can replace standard encoders in many applications.

For example, they can be a good solution when working space is limited or the application is in an extreme environment.

This is because the encoder housing can be mounted in a safe place, easily accessible and adequately protected. This while the measuring wire requires minimum space and can be exposed to harsher conditions.

Draft wire encoders can be equipped with a very large selection of 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.

Following the installation of the new ERP software at the beginning of January 2023, **the order codes as well as the names of the draw-wire encoders have changed, below follows a round-up of the name changes.**

"S" (small) in the name - such as in SFES1 or SFAS1 - is used to mark the encoders with the shortest measuring wires (up to 2 metres);

"M" (medium) - such as in SFEM1 or SFAM2 - is used to mark the encoders with the longest measuring wires (from 5 metres on). In the "M" order codes with two wire options, the following number "1" marks the shortest wire option; number "2" marks the longest wire option. See for example the SFEM1-05000-... encoder with 5-metre long wire; and the SFEM2-10000-... encoder with 10-metre long wire.

SAK and SBK previous encoder names did not change.

Please note that all mechanical and electrical technical characteristics remain unchanged.



SFPS1 (ex SFP)

Robust and space saving construction
Integrated potentiometer with 1,5,10,20 k Ω
Measuring length up to 2000 mm



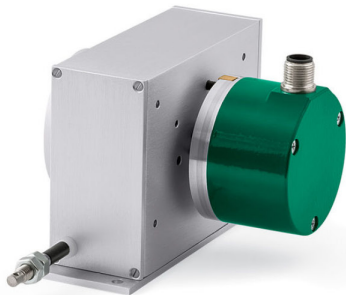
SFES1 (ex SFE)

Robust and space saving construction
Integrated incremental encoder
Measuring length up to 2000 mm



SFEM1 - SFEM2 (ex SFE-5000 - SFE-10000)

Integrated programmable encoder
Compact design and easy installation
Resolution up to 16384 PPR (prog.)



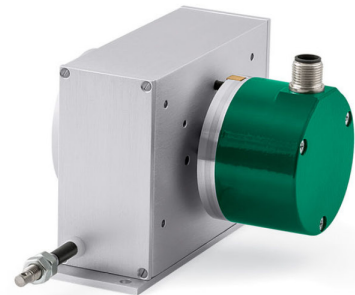
SF0M1 (ex SF-I)

Draw-wire units for incremental encoders
5 or 6,8 m measuring length
For blind hollow shaft encoders



SFAS1 (ex SFA)

Absolute draw-wire encoder
Robust and compact design
Resolution from 0.1 to 0.012 mm



SF0M2 (ex SF-A)

Draw-wire units for absolute encoders
5 or 6,8 m measuring length
For blind hollow shaft encoders



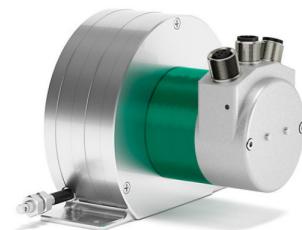
SFAM1 - SFAM2 (ex SFA-5000 - SFA-10000)

SSI interface, gray or binary coded
Compact design & easy installation
5000 & 10000 mm measuring length



SFAM1 TI/TV - SFAM2 TI/TV (ex SFA-5000 TI/TV - SFA-10000 TI/TV)

Integrated absolute encoder
Programmable analogue output
Teach-in of travel length by push buttons



SFAM1 FB - SFAM2 FB (ex SFA-5000 FB - SFA-10000 FB)

Integrated absolute encoder
Profibus-DP, CANopen, Devicenet, EtherCAT,
POWERLINK and Profinet interface

