

Draw-wire and multiturn encoders

At the fair, Kuebler shows its draw-wire encoders D120 for outdoor applications as well as the magnetic Sendix M58 multiturn encoders. Both come with CANopen.

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The D120 encoders come with a CANopen interface (Photo: Kuebler)

[Zoom](#)

Kuebler's D120 draw-wire encoders provide protection level IP69k and a temperature range of -40 °C to +85 °C, which makes them suitable for outdoor applications. The stainless steel wire with diameters from 0,5 mm to 1,5 mm and various wire fastening systems (clip, M4 thread and ring) give flexibility. These features ensure operation in harsh environments. The housing is made of titanium-anodized aluminum. The device is available in open or closed housing, or with a perforated sheet metal cover.

The draw-wire encoders are designed for a measuring range of 3 m to 10 m. The linearity reaching $\pm 0,1\%$ provides high performance, says the company. The product features 0 V to 10 V and 4 mA to mA analog outputs. Additionally it comes with a CANopen interface as well as a potentiometer output. Safety has also been taken care of: all outputs are available as redundant variants. The connection can be chosen either with a radial cable (IP69k) or with an M12 connector.

At the SPS, Kuebler (Germany) also exhibits the magnetic Sendix M58 multiturn encoder. This solid shaft encoder is based on [energy harvesting technology](#), which requires less mechanical components than e.g. a multiturn encoder with gears. The encoder operates wear-free and is therefore durable.

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The Sendix M58 encoders (Photo: Kuebler)

[Zoom](#)

The structure includes extra large bearings and an additional shaft seal protection. It thus absorbs shocks, vibrations, and installation errors. The IP65 protection level and temperature range of -40 °C to +85 °C also make this encoder suitable for demanding applications. It is mounted on a flange with a 58 mm size. The mounting depth of 59 mm is ideal for tight installation spaces. The Sendix M58 is available as CANopen, analog, or SSI variants. The maximum total resolution is 38 bit.

The scalable measuring range is another advantage of the encoder. Depending on the application, the analog output can be adapted to the total measuring range. This means e. g. that 0 V on the voltage output corresponds to the starting value of the total measuring range (zero position) and 10 V correspond to the final value of the total measuring range (maximum 65536 revolutions). The additional limit switch functionality allows setting limit values in the encoder. The magnetic multiturn encoder can be used in the following applications: general automation, logistics, metalworking, and textile machines.

Kuebler shows its products – including these encoders – at the SPS IPC Drives 2016 in hall 7A, stand 508.

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