

ENCODER

Resistance to salt spray, cleaning agents, and disinfectants

The FHx58 encoders from Megatron come with a tested hygienic design and salt-mist resistant metal housing. They are suitable for food industry, pharmaceuticals, and offshore applications. They are available in different variants and with CANopen or J1939 interfaces.

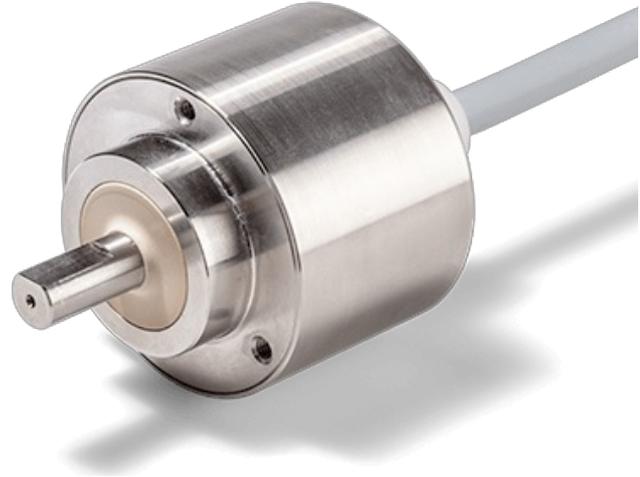
The company offers the encoders as incremental encoders or absolute encoders with CAN/SSI interface and energy harvesting technology. The encoders come with a surface-treated body made of solid stainless steel in combination with materials such as PTFE (polytetrafluoroethylene) and TPE (thermoplastic elastomers). The product's dead-space-free shaft sealing element and encapsulated housing design enable high-pressure and steam-jet cleaning of the encoders (IP69K). Due to their insensitivity to cleaning and hygienic agents, the encoders are mainly used in applications with high hygiene standards (EHEDG-approved hygienic design).

Its design also allows the product to be operated permanently in salty atmospheres (salt-mist resistant according to DIN EN60068-2-11) and to be cleaned with fluids containing acids or alkalis (Ecolab-certified design). Furthermore, the encoders are equipped with ball bearings. They allow the shaft to be continuously loaded with up to 100 N. The encoders are designed for a lifespan of at least 20 years and the electronics have a mean time to failure (MTTF) of 1 000 years, explained the company.

The signal processing of the encoders is digital and is based on magnetic, gradient-based, or optoelectronic measured value recording. As absolute encoders, the encoders offer up to 16-bit single-turn resolution and up to 43-bit multi-turn resolution. The digital communication interfaces CANopen, J1939, and SSI ensure digital transmission of the measured values. In addition, they guarantee integration and monitoring of the encoder in the application. In the version with battery- and gearless energy harvesting technology, the encoders record the number of revolutions made even in a de-energized state.

As an incremental encoder with optoelectronic scanning, the electronics offer up to 25 000 pulses per revolution and are designed with output options - such as TTL, HTL (also EIA-422-compatible), each single (A, B, Z) or differential (A, A/, B, B/, Z, Z/). In addition, the encoder has an electronic early warning system (EWS) that signals an impending error approx. 1 000 hours before the encoder fails.

The electrical connection of the encoders is made via a special-shielded 2-m round cable made of TPE, which is permanently connected to the encoder. FHx58 encoders are manufactured in Germany and cover a range of applications due to the variety of options.



The encoders provide digital communication interfaces including CANopen and J1939 (Source: Megatron)

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