



Braves all Environmental Conditions - Rotary Encoder AGE60

Leinfelden-Echterdingen, 17 April 2023. Extremely robust encoders for heavy-duty applications are not really widespread on the rotary encoder market. And if available at all, these solutions are very expensive. With its AGE60, EBE sensors + motion offers an exceptionally resistant and yet cost-efficient alternative.

The AGE60 is a redundant angular position encoder with touchless signal detection via two independent HALL sensors. The two HALL sensors are monitored by a micro-controller for the plausibility of the detected signal. If the detected absolute angular position is plausible, it is transmitted as a protocol to the bus via two independent CAN bus nodes. By means of this principle it is possible to detect angles or rotations. As adapted by EBE, the useful signal can also be provided via other signal output protocols such as SPI.

High Precision with Compact Design

In terms of mechanics, the rotary encoder convinces by its compact, adaptable aluminium housing with a diameter of appr. 59 mm and a height of appr. 30 mm. The sealing in protection class IP67 and the precision ball bearing mounted axis distinguish the robust encoder. This axis with its special bearing and the electronics used help the angular encoder to achieve a resolution of 10 bits with a rotational angle of 90° and of 14 bits with 360°. The useful angle can be adapted to the respective customer project from 1° to 359°.

Resistant to Manifold Environmental Conditions

As the signal detection via the HALL sensors is touchless, the AGE60 is almost indestructible. The vibration resistance of the IEC was tested and approved acc. 68-2-6, the shock resistance acc. IEC 28-2-27. Furthermore, the AGE60 is approved for operating temperatures of -20° C to +85° C. In spite of these features, the AGE60 is comparatively cost-efficient and offers a good alternative for tight budgets. With these special properties, the encoder is highly suitable for use in particularly rough environments such as agricultural or construction machines and already in serial application there.



Picture file: EBE_Encoder_AGE60

Picture text: The robust rotary encoder from EBE sensors + motion offers a cost-efficient alternative for applications under rough conditions.

Picture source: EBE Elektro-Bau-Elemente GmbH

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Short Profile

The company EBE Elektro-Bau-Elemente GmbH (brand name: EBE sensors + motion) based in Leinfelden-Echterdingen near Stuttgart develops and manufactures OEM-products in the fields of sensor technology, components for HMI-interfaces as well as actuator and mechatronics technology. The focus lies on capacitive and inductive sensors based on the technologies developed in-house and mechatronic solutions for industry, appliances, medicine and mobility. The sensor program also includes level sensors, pressure sensors, position sensors and capacitive buttons. Furthermore, EBE develops and manufactures customer-specific solenoids and robust rotary switches, buttons and encoders and adapts them to the customer requirements. The company sees itself as a competence center for the development and production of sensor systems and drive technology.

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