

An Optical Encoder to Keep Your Eyes Open For

American Electronic Components (www.aecensors.com) introduces Elesta Sensors new and innovative **Optical Encoder system**, the **EOI R007** which meets the growing demand for miniaturization of micromechanical drives and offers **higher precision in controlling motor speed and position**.

This unique, patented, design combines Light source and photo detector mounting in the same plane facing the code wheel, the complete surface of which is reflective, ensuring the majority of incoming light (>90%) be reflected on the light sensor.

Bruce Finke, VP Sales & Marketing at AEC, commented “A compact design, with extremely low power consumption, high resolution and precise output signals. The flexibility of this encoder system allows it to be integrated into a variety of housings of systems and motors with absolute ease.”

The precision of the code wheel, the focusing of the light beam and the use of a CMOS control circuit achieved a high slew rate and very tight signal tolerances. The specification below is based on a code wheel with 128 reflectors and achieved an angular tolerance of less than $\pm 0.14^\circ$, proving the design of miniaturized precise angle sensors is possible and highly efficient.

The reliable EOI R007 **achieves higher signal selectivity than comparable reflective systems, being a factor two better**. The high output signals precision allows the system to retain its accuracy after 2 and 4 fold interpolations.

“The accuracy of outputs are amply immune to positional tolerance between code wheel and sensor”, continued Finke.

The optical encoder is **available as a modular system in kit form**, giving customers the option to integrate the sensor and code wheel kit in an existing housing, motor or system. Alternatively the encoder system **can be integrated as a universal encoder in a preferred housing**.

“We have an excellent relationship with Elesta Sensors and can work with them, utilising accessories, to develop and adapt the encoder design to meet specific application requirements,” concluded Finke.

About American Electronics Components Incorporated

AEC is a leader in the design and manufacture of specialized electrical and electronic components primarily for automotive, heavy truck, off-highway and industrial applications. Our product line includes positions sensors, G-force sensors, acceleration switches, DURAKOOL relays, inclination sensors & switches and HERMASEAL glass to metal seals. Our extensive experience with harsh environmental packaging concepts, creative engineering team and high-quality products has positioned AEC to support your most challenging applications. AEC are ISO 9001 and 14001 quality certified.

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