

SEEING IS BELIEVING - A Miniature 3 Channel Optical Encoder!

Seeing really is believing with Elesta's new miniature innovative **Optical Encoder E OI R007** from American Electronic Components Inc. (AEC), www.aecensors.com! Elesta have just added this miniature 3 channel optical encoder, in 7 x 13mm aluminium housing, to its wide product portfolio.

Bruce Finke, VP Sales & Marketing AEC commented "This optical encoder is one of the smallest on the market, it has been fitted with 2 precision ball bearings guaranteeing exceptionally smooth running and a long service life at speeds of up to 80,000 rpm! Even at these high speeds, a very exact signal quality and accuracy is achieved."



Inside the miniature housing is the patented unique Elesta encoder system - the E OI R, an integrated system operating on the basis of a new optical focussing incidental light method.

Within the integrated system are multiple reflective parabolic shaped concave mirrors, forming the code segments of the code wheel. The clever design of the mirrors reflect only an extremely clear and steep concentration of light from the transmitter LED, ensuring exact signal quality and accuracy across the entire speed range. The encoder delivers 128 pulses at any rotation speed, to two outputs that are phase shifted by 90°. The third channel provides one index pulse per revolution.

"The encoder is designed to operate with 4 mA current at 5V, making it ideal for battery-powered applications." Continued Finke.

The E OI R007 housing is mounted using grub screws, securely braced against rotation. Coupling of the encoder with commercial clutch elements for connection to motors, gearboxes or the like, are just as straightforward as the adaptation of potentiometer knobs with clamps or a fixing screw. The chamfered output shaft has a diameter of 2 mm and is flattened on two sides. Dental drills and general robotics are typical applications.

"AEC and Elesta have an excellent relationship and work together to provide extensive design support. It is possible to evaluate individual solutions integrating the encoder housing or using customer-specific systems or housing. The optical encoder is also 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." Concluded Finke.

[Elesta Optical Encoders from AEC](#) 

About American Electronic Component Incorporated

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

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