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In the News

NVE sensors were used in a sensing system for blast-induced traumatic brain injury, as reported in the journal *Nature*.

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Happy Holidays



NVE will be closed Thursday and Friday, December 24 and 25, and Friday, January 1.

We wish our readers the best this holiday season, and a successful 2016.

Gear-Tooth

Sensor Demonstrator

AKL-Series gear-tooth sensors are a simple, flexible rotational speed sensing solution. A new, easy-to-use demonstrator lets engineers try out a simulated rotational sensing system.



Key AKL sensor features are:

- Large airgap
- 50% duty cycle
- DC (zero speed) operation
- Precise spacing between sensor elements
- Excellent temperature and voltage performance
- Small, low-profile surface mount package

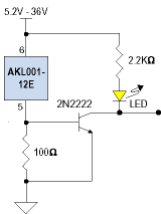
AKL demonstrators are [in stock](#) for immediate delivery.

[Demonstrator Manual >](#)

Buy Online
\$9.95 shipping

Application Corner

Three-Wire Digital Gear-Tooth Sensor



Three-Wire Digital Gear-Tooth Sensor

[AKL-Series Gear-Tooth Sensors](#) have 4-to-8 mA two-wire interfaces. The interface can be directly used in certain applications, but some application require a three-wire configuration.

In the simple circuit above, when the current is 4 mA, the voltage across the 100 ohm resistor is 0.4 V, not enough to turn on the transistor. With 8 mA, the transistor turns on. Note that the supply voltage must be at least 5.2 V to provide the sensor's 4.5 V minimum Vcc.

We maintain factory inventory of three popular AKL-Series sensors:

Part Number (click for details)	Element Spacing
AKL001-12E	300 μ m
AKL002-12E	500 μ m
AKL003-12E	1000 μ m

The best spacing depends on the geometry of the gear and the sensor system. As a starting point, the sensor element spacing can be one-fourth of the gear pitch.

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