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New YouTube Videos

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New Evaluation Boards

- [IL41050TFD-1-01: QSOPT Isolated CAN FD Evaluation Board](#)
- [AG953-07E: SM225 Precision Smart TMR Rev. B Magnetometer Demo Board](#)

In the News

NVE is highlighted in a recent article in *Elektronik International* titled, "Bye-Bye Optocoupler."

An excerpt: "Optocouplers are no longer fast enough for today's data technology. So what are the alternatives?" (spoiler alert: they're made by NVE).

Holidays

NVE will be closed Wednesday, December 25 and Wednesday, January 1.

3-Volt Nanopower TMR Magnetic Switches

Our second family of revolutionary Tunneling Magnetoresistance (TMR) magnetic switches are the three-volt ADT-Series. They are nanopower, high speed, and ultraminiature.

Battery Operation

ADT-Series sensors operate from 2.4 to 4.2 volts, which is ideal for lithium or lithium-ion batteries and 3.3-volt supplies.

Ultralow Power

TMR technology provides ultralow power. Typical quiescent supply current is just 0.6 μ A, even with no duty cycling. That's less than the self-discharge rate of typical lithium-ion batteries, making the new sensors ideal for battery applications such as utility meters or portable instruments.

High Speed

Continuous operation without duty cycling means the sensors are fast, and can switch at more than 20 kHz.

Sensitive

Magnetic operate points are as low as 1.5 mT (15 Oe).

Configured as Switches

Outputs are configured as magnetic "switches," turning on when a magnetic field is applied and off when the field is removed. The field can be either polarity, and the magnetic operate point is extremely stable over supply voltage and temperature.

Ultraminiature

ADT sensors are in a 1.1 mm x 1.1 mm x 0.35 mm (0.043 x 0.043 inch) ULLGA package.

Key Specifications

- 2.4 to 4.2 V operation for lithium or lithium-ion power
- 0.6 μ A quiescent current
- 20 kHz switching speed
- Ultraminiature 1.1 x 1.1 mm x 0.35 mm package

In Stock

Two ADT-Series part types are available now, with two more available soon.

Part Type (click for details)	Typical Magnetic Operate Point	Availability
ADT925-14E	1.5 mT	Jan. 2020
ADT924-14E	2.2 mT	Dec. 2019
ADT923-14E	3.2 mT	In stock
ADT922-14E	4.5 mT	In stock

Demonstration Board

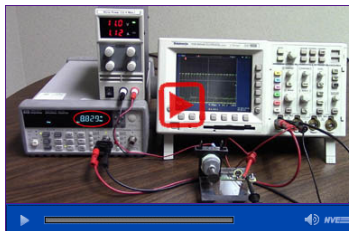
The [AG040T Demonstration Board](#) has an ADT923-14E sensor and an LED to show the sensor output. It is powered by a three-volt lithium coin cell (included). The sensor's low quiescent power allows the battery to last at least several years with occasional LED use. A miniature bar magnet is included to activate the sensor. The board is just 1.57 by 0.25 inches (40 x 6 mm).

[Download the ADT Datasheet »](#)

[Download the Demo Board Datasheet »](#)

[Buy Online \\$2.95 shipping](#)

Here's a demonstration of the low power and high speed of the new part:



In the News



A full-length article highlighting NVE's GMR and TMR isolators titled "Bye-Bye Optocouplers?" was published in the October issue of *Elektronik International*. The article was written by Wolf-Dieter Roth of NVE distributor Hy-Line.

An excerpt, "...GMR technology can also be used in magnetic sensors and data couplers, such as the US company NVE under the brand name 'IsoLoop.'"

[Read the Article »](#)

Recent Exhibitions



NVE researchers presented a paper titled, "Noise Optimization in Magnetic Tunnel Junctions," at the **Magnetism and Magnetic Materials Conference** in Las Vegas.

NVE distributor K.K. ROCKY exhibited NVE sensors and isolators at **Embedded Technology & IoT Technology** in Yokohama, Japan.



Upcoming Exhibitions

NVE distributor Arazim will exhibit at **IoT, Embedded Solution & Microprocessors** December 10 in Tel Aviv.

