

In This Issue

[TMR Magnetic Switches](#)

[Smart Sensor Breakout Boards](#)

[Upcoming Exhibitions](#)

Quick Links

[Sensor Selector Guide](#)

[Isolator Selector Guide](#)

[Online Store](#)

[Contact Us](#)

[Twitter](#)

[YouTube](#)

New YouTube Videos

[Fast, low-power TMR Switches](#)

[Intrusion Detection Using an SM124 Smart Sensor](#)

[Reciprocating Actuator Using an SM124 Smart Sensor](#)

"Spin" Back

Daylight Saving Time ends Sunday, November 3. "Spin" your clocks back an hour.

Holidays

NVE will be **open** on Veterans' Day Observed (Monday, November 11).

We will be **closed** Thursday and Friday, November 28 and 29 for the Thanksgiving holiday.

1.5-Volt Nanopower TMR Magnetic Switches

Revolutionary new AHT-Series Tunneling Magnetoresistance (TMR) magnetic switches are low-voltage, nanopower, high speed, and ultraminiature.

Single-Cell Operation

AHT-Series sensors operate as low as 0.9 volts, so they can be powered by single-cell alkaline batteries.

Ultralow Power

TMR technology provides ultralow power. Typical AHT-Series quiescent supply current is just 1 μ A, even with no duty cycling. That's less than the self-discharge rate of typical button cells, making the new sensors ideal for battery applications such as utility meters or portable instruments.

Speed and Wide Bandwidth

Continuous operation without duty cycling means the sensors are fast, and can switch at more than 1.5 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

AHT sensors are also NVE's smallest parts at just 1.1 mm x 1.1 mm x 0.35 mm (0.043 x 0.043 inch)

Key Specifications

- 0.9 to 1.8 V
- 1 μ A supply current
- 1.5, 2.2, 3.2, or 4.5 mT operate points
- Open-drain output
- -40°C to 85°C temperature range

In Stock

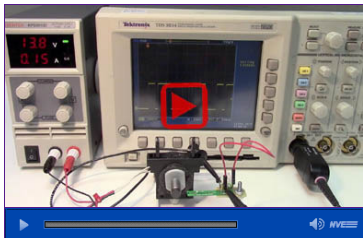
Four AHT-Series part types are available:

| Part Type (click for details) | Typical Magnetic Operate Point |
|----------------------------------|--------------------------------|
| AHT925-14E | 1.5 mT |
| AHT924-14E | 2.2 mT |
| AHT923-14E | 3.2 mT |
| AHT922-14E | 4.5 mT |

[Download the AHT Datasheet »](#)

Buy Online
\$9.95 shipping

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



Smart Sensor Breakout Boards

NVE expanded its Smart Sensor support ecosystem with breakout boards for all four [NVE Smart Sensors](#). The boards include a Smart Sensor, six-pin header, and a bypass capacitor, making it easy to evaluate the sensors and build prototypes. The AG958-07E Breakout Board also has a connector to for use with the [AG955-07E Self-Contained SM124 Programmer](#) or with customers' own boards.



AG958-07E
SM124 General-Purpose Smart Magnetometer Breakout Board



AG959-07E
SM225 Precision Smart Magnetometer Breakout Board



AG960-07E
SM324 Ultraprecise Smart Magnetometer Breakout Board



AG957-07E
ASR002 Smart Angle Sensor Breakout Board

In addition to the breakout boards, NVE offers [Smart Sensor evaluation kits](#) that include evaluation boards with microprocessor USB interfaces to Windows-based computers.

ISO9001 and IATF 16949 Renewed



NVE's ISO9001 certificate and IATF16949 Letter of Conformance have been renewed.

The IATF Letter certifies that NVE has established and applies a Quality Management System for components for the automotive industry.

NVE makes a number of products for automotive applications, including [CAN](#) and [CAN FD](#) isolated transceivers, as well as a wide range of magnetic sensors.

Conferences and Exhibitions



NVE researchers will present paper titled, "Noise Optimization in Magnetic Tunnel Junctions," at the **Magnetism and Magnetic Materials Conference** November 8 in Las Vegas.

NVE distributor K.K. Rocky will be exhibiting sensors, isolators, and the popular smart-sensor based xylophone at **Embedded Technology & IoT Technology**, November 20 to 22, booth C-46, Yokohama, Japan.

