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**New on YouTube**

- [The SM124-10E Smart GMR Magnetometer \(first look\)](#)
- [The ridiculously simple SM124 Smart Magnetometer PC interface](#)
- [Self-contained Smart Magnetometer programmer](#)
- [New GMR Current Sensor / Microcontroller Evaluation Board](#)
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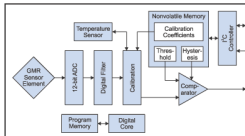
**No Holiday at NVE**

NVE is open on President's Day, Monday, February 18.

**Smart GMR Magnetometer**

The new SM124-10E **Smart Magnetometer** combines a Giant Magnetoresistance (GMR) sensor element with sophisticated digital signal processing.

An I<sup>2</sup>C interface provides data as well as an external programming interface. A digital output provides precise, programmable thresholds:



Unlike awkward, old-fashioned Hall-effect sensors, GMR is sensitive in-plane for optimal current sensing and easy mechanical interfaces.

Key SM124-10E **features** include:

- Factory calibrated
- Can detect magnets more than 50 mm away
- I<sup>2</sup>C and digital threshold outputs
- 7-bit output resolution
- In-plane sensitivity—more usable than Hall effect sensors
- Factory calibrated
- Internal temperature compensation
- Programmable offset and gain compensation
- Optional magnet temperature compensation
- 2.2 to 3.6V supply
- Ultraminiature 2.5 x 2.5 x 0.8 mm TDFN package

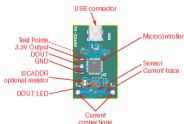
[Download the SM124 Datasheet >](#)

SM124-10Es are **in stock** for immediate delivery.

**Buy Online**  
\$9.95 shipping

**Evaluation Kit**

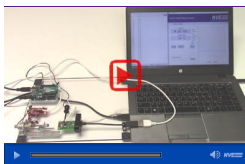
The AG952-07 Evaluation Kit has everything you need to calibrate, test, and evaluate the remarkable SM124-10E Smart Magnetometer:



The evaluation kit includes:

- An evaluation board with:
  - an SM124-10E sensor.
  - a microcontroller connected to the sensor via I<sup>2</sup>C.
  - a current-carrying trace under the sensor for evaluating as a current sensor.
- A powerful, intuitive graphical user interface.
- Simple software installation.
- Flexibility to power from USB or external power supply.
- Isolated USB interface for safety and low noise.
- USB cable to connect the Evaluation Board to a computer.
- A small ceramic magnet for evaluating as a proximity sensor.

Here's a live demonstration of the kit:



Kits are **in stock** for immediate delivery.

**Buy Online**  
\$9.95 shipping

**Self-Contained SM124 Programmer**

The new SM124 Smart GMR Magnetometer can be programmed for whatever magnetic threshold you want, and a ridiculously simple PC interface lets you program it from a microcontroller.



And we also offer a self-contained board that lets you set the threshold with thumbwheel switches. No computer needed.

There is a pushbutton for rezeroing, and miniature thumbwheel switches for programming threshold and hysteresis. The module is powered by a small wall-mounted power supply (included).

Jumpers allow the SM124-10E to be disconnected from the rest of the board so the board can also be used as an interface to the customer's electronics.

[Programming Demonstration Video](#)

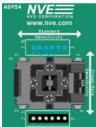
SM124 programmers are **in stock** for immediate delivery.

**Buy Online**  
\$9.95 shipping

**Smart Magnetometer Socket Board**

The AG954-07E provides a socket for easy programming and prototyping of TDFN6 devices without soldering and unsoldering.

The custom socket is compatible with NVE's 2.5 mm x 2.5 mm TDFN6 package parts (-10E suffixes), including the new SM124-10E Smart Magnetometer:



A 0.1"-spaced header provides for connections to the sensors, and a row of 0.1"-spaced through-holes allows for auxiliary parts such as a decoupling capacitor or an LED for the Digital Output pin.

The board is 1.5" x 2" (38 mm x 50 mm), and uses brass hardware to minimize magnetic interference with the socketed sensor.

TDFN Socket Boards are **in stock** for immediate delivery.

**Buy Online**  
\$9.95 shipping

**Upcoming Conferences**



Distributor Hy-Line Power will display NVE products at **Embedded World**, February 26 to 28, at Halle 1/Stand 170, Messe Nürnberg, Germany.

Featured new products will include [IL01x Low-Power Isolators](#).