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New Catalog Downloads

Our popular [Sensor Catalog](#) and [Isolator Catalog](#) have been updated with new products including Smart Sensors and Low-power Isolators.

- [Download Sensor Catalog »](#)
- [Download Isolator Catalog »](#)

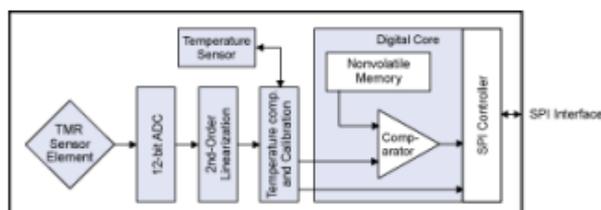
Trending on YouTube

- [Low Supply Current with the World's Only TMR Isolators](#)
- [Detecting Tiny Gear Teeth](#)
- [Mechatronic Xylophone using ASR002 Angle Sensors](#)

Smart TMR Magnetometer



The new SM225-10E **Smart Magnetometer** provides a unique combination of speed and precision. The smart sensor combines a Tunneling Magnetoresistance (TMR) sensor element with sophisticated digital signal processing. A fast, reliable SPI interface provides data as well as an external programming interface:



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

Key SM225-10E **features** and **specifications** include:

- Wide 0 to 150 Oe / 0 to 15 mT linear range
- Can detect magnets more than 50 mm away
- Fast SPI interface
- 2% FS accuracy for 0 to 125°C
- Fast 15 kSps update rate
- Factory calibrated
- Programmable offset and gain compensation
- -40°C to 125°C operating range
- Ultraminiature 2.5 x 2.5 mm TDFN package

A Family of Smart Magnetometers

The SM225 is the third member of NVE's groundbreaking smart magnetometer line, joining the general-purpose [SM124](#) and the ultra-accurate [SM324](#).

[Download the SM225 Datasheet >](#)

The SM225-10E is [in stock](#) for immediate delivery.

Buy Online
\$9.95 shipping

Evaluation Kit

The AG953-07 Evaluation Kit has everything you need to calibrate, test, and evaluate the remarkable SM225-10E Smart Magnetometer:



The evaluation kit includes:

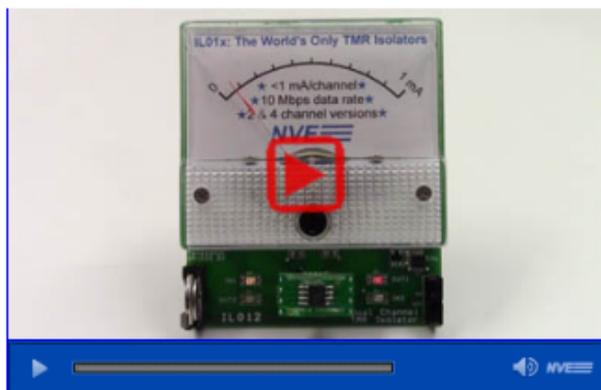
- An evaluation board with:
 - an SM225-10E sensor.
 - a microcontroller connected to the sensor via SPI.
 - a current-carrying trace under the sensor for evaluating as a current sensor.
 - a PWM output for tracking the field with a voltmeter.
- A powerful, intuitive graphical user interface.
- Simple software installation.
- USB cable to connect the Evaluation Board to a computer.
- A small ceramic magnet for evaluating as a proximity sensor.

Evaluation kits are [in stock](#) for immediate delivery.

Buy Online
\$9.95 shipping

Low Supply Current with the World's Only TMR Isolators

A new demonstration of the world's only Tunneling Magnetoresistance isolators shows how little current they use. We power an IL012 isolator with a single lithium button cell, and show that the quiescent current is less than 0.1 mA per channel:



IL01x Isolators are ideal for battery-powered instruments or 4-20 milliamp current loops.

Various two- and four-channel configurations are [available](#).

Key specifications include:

- 0.3 mA/channel typ. quiescent current
- 10 Mbps guaranteed data rate
- No carriers or clocks for low EMI
- 44000 year barrier life

[Download IL01x Datasheet »](#)

Buy Online
\$9.95 shipping

Recent Exhibitions

Power Conversion and Intelligent Motion (PCIM), in Germany in cooperation with distributor Hy-Line Power Components.

PCB Design & Manufacturing Live in England in cooperation with distributor Rhopoint Components.

Upcoming Exhibitions

sensors expo & conference 2019 Sensors Expo and Conference June 25 to 27, San Jose, Calif., Booth 1344 in the *IoT and Wireless Pavilion*.

In addition to having a booth at the show, our Dr. Joe Davies will present a [paper on medical sensors](#). [Contact us](#) for a free exhibition pass!



Sensor+Test 2019, June 25 to 27, Nürnberg, Germany

NVE sensors will be on display in cooperation with distributor Pawatron/IS-Line (stand 1-333).