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Fun Facts

Flyweights

 NVE medical sensors enable smaller medical devices. NVE AFL-Series Medical Device Sensor dice weigh about 1.5 milligrams— less than a typical mosquito tipping the scales at two milligrams and less than one-tenth the weight of a typical housefly.

[<More Fun Facts>](#)

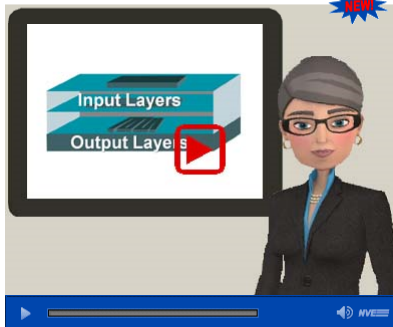
Background Music

 "Switch" by Will Smith is NVE's current telephone background music.

That's because we're featuring magnetic [switches](#) this month.

IsoLoop Reliability Video

NVE quality guru "Dee" makes her virtual debut in a new video explaining why IsoLoop isolators are the industry's most reliable. The video is the latest addition to NVE's highly-acclaimed series of [videos](#) cover technology in a fun format.



NVE's Quality Guru "Dee"

Featured Product

GMR Switch™ Precision Digital Sensors

NVE offers three series of GMR Switch Precision Digital Sensors:

- **AD-Series** TDFN/MSOP Digital Sensors; 4.5 V – 30 V supply voltage
- **ADL-Series** 1.1 mm x 1.1 mm Digital Sensors; 2.4 – 3.6 supply voltage
- **ADV001-Series** bipolar (south field ON, north field OFF) MSOP Digital Sensors

Popular applications include:

- Proximity detection
- Pneumatic cylinder position sensing
- Speed sensing

NVE's GMR Switches integrate GMR sensor elements with digital onboard signal processing electronics. GMR Switches have less field sensing errors than other magnetic sensors, and magnetic field operate points are stable over voltage and temperature extremes. This enables high precision, tight-tolerance magnetic sensing assemblies.

GMR Switches can operate over a wide range of magnetic fields. Parts are available in SOIC8, MSOP8, 2.5 mm x 2.5 mm TDFN6 packages, or 1.1 mm x 1.1 mm ULLGA packages.

[<Data Sheets>](#)

[<Video on GMR Switches>](#)

Buy Online
\$9.95 shipping

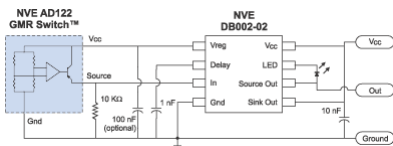
Application Corner

Magnetic Switch Circuitry

GMR Switch™ Precision Digital Sensors are available with several output configurations, including current source and current sink. GMR Switches provide up to ±20 mA output current, so in many cases no additional circuitry is required.

For higher drive output requirements, the DB002-02 Sensor Interface IC provides a sourcing or sinking output with up to 300 mA.

The following illustrative circuit uses a [DB002-02 Interface IC](#) with an [AD1-Series GMR Switch](#) to provide a high-current sourcing output:



Popular GMR Switches for this circuit include the AD122, which has a 40 gauss operate point and cross-axis magnetic sensitivity.

In addition to output drive, the DB002 IC also provides short-circuit protection, transient protection, thermal shutdown for temperature protection, reverse battery protection, a voltage regulator, and an on-chip LED driver.

[<E-mail the Sensor Applications Desk>](#)