

April 2010

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**Earth Day April 22**

With Earth Day coming up, we note that virtually all NVE parts are available in Pb-free, [RoHS-compliant packages](#).

Most parts are also available in Sn-Pb plated versions for customers who don't require RoHS and need tin-lead reliability or solderability.

**RoHS**  
COMPLIANT

**Good Friday**

NVE will be closed for business Friday, April 2.

**Supply Chain**

**In Stock. No Fooling.**

Some component suppliers played a nasty April Fool's prank by cutting capacity. Now their leadtimes are a joke.



We don't think being out of parts is funny, and we've expanded and added equipment. NVE and its distributors have virtually all part types in stock.

Our extraordinary track record of on-time shipments has earned us new customers.

They may come for the leadtime but they stay for the parts.

Smaller. Faster. More precise. In stock. No fooling.

Call (800) GMR-7141, [buy online](#), or find a [distributor](#).

**Exhibitions**

**PCIM Europe**



NVE distributor HY-LINE Power Components will have NVE isolators, including the new [IL41050 Isolated CAN Transceivers](#), at the **Power Conversion Intelligent Motion** exhibition. The show runs May 4 to May 6 in Nuremberg, Germany.

**Application Corner**

**Foolproof Sensor Circuits**

By [Jay "Nobody's Fool" Brown](#)  
*Vice President, Sensors*

Thwart the jokers who short outputs and connect power supplies backwards.

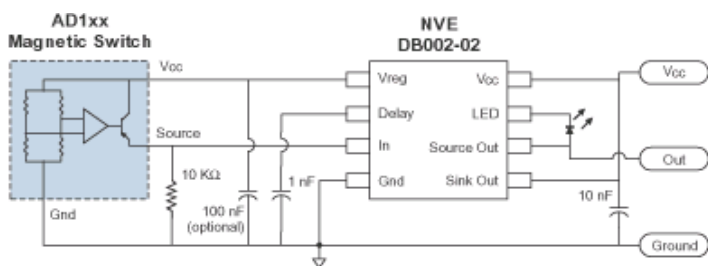


The unique NVE DB002-02 IC provides short-circuit protection, reverse battery protection, automatic thermal shutdown, and Integrated transient protection, as well as signal processing, for virtually foolproof sensor systems.

The DB002-02 is designed to work with NVE's AD1xx-Series GMR switch magnetic sensors or any current sourcing or CMOS/TTL output sensor element. Some customers even use the IC for inductive and photoelectric sensors.

Up to 300 mA sourcing and sinking outputs are provided. Integrated transient protection allows capacitive or inductive loads.

A typical circuit is illustrated below:



**Foolproof Sensor Circuit**

The LED is driven with 3 mA when the output is on. Short-circuit shutdown delay is set by the 1 nF capacitor. A 10 nF minimum bypass capacitor is recommended between Vcc and ground. Vreg is a regulated 5 V output to power the sensor or other components. A 100 nF bypass capacitor is recommended for Vreg in noisy environments.

[<DB002-02 Data Sheet \(.pdf\)>](#)

**Buy Online**  
\$9.95 shipping

**April 1 Product Introduction**



Extending its leadership in CAN isolation, NVE is introducing the new IsoString™ line of Tin CAN isolators, which provide audio coupling while maintaining electrical isolation.

A 20 Hz to 20 kHz frequency range means crystal clear signals, and bandwidth can be extended to the ultrasonic range by replacing the human ear with a suitable transducer.

Extremely rugged, the devices have 30-pound tensile strength, typical isolation voltage of 350,000 volts (a bit less if it's humid), and an operating temperature range of -55°C to 125°C for four-season operation in even the harshest climates.

IsoString Tin CAN isolators come in 500-foot spools and can be cut to length with most household cutting tools.