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In the News

NVE was featured in *TheStreet* as one of three fast-growth semiconductor companies. *TheStreet* also lists NVE as one of five "best-in-breed" of the semiconductor industry.

[<Links to NVE in the News>](#)

Fun Fact

Shockingly Good Isolators

IsoLoop Isolators—even MSOPs—have demonstrated the ability to withstand a remarkable 800 Vac or 1,130 Vdc between the input and output pins indefinitely without damage ("the endurance voltage").

That's the equivalent of 753 D-cells, which would make a flashlight 150 feet long.

For more information, see ["From the Application Desk"](#) at right.

Voicemail Playlist

Currently playing on our phone system background is the theme music from "Speed," the 1994 movie.

The theme highlights the remarkable speed of NVE Isolators.

The background music is selected to complement the benefits of NVE products (see the [playlist](#)).

Recent Shows

PCIM Europe and Sensor + Test were both last month in Germany.



NVE distributors HY-LINE Power Components and HY-LINE Sensor-Tech showed NVE sensors and isolators. The new [IL41050 Isolated CAN Transceivers](#) and [AAT-Series Angle Sensors](#) were particular hits.



Featured Product

Wide-Body SOIC-16 Isolators

A full eight millimeter external creepage distance for the most demanding high-voltage performance. IsoLoop Isolators offer a full product line in wide-body SOIC packages, providing 2,500 Vrms isolation voltage, 300 Vrms working voltage, and 800 Vrms endurance voltage (see "From the Applications Desk" below).

Wide-body isolators are available in a variety of input, output, and channel configurations, as well as a full line of isolated RS-485/RS-422/PROFIBUS transceivers. Key features include:

- 0.3"-Wide SOIC-16
- 8 mm External Creepage Distance
- 3, 4, or 5 Channels, or RS-485/RS-422
- Passive or Digital Inputs
- CMOS or Open-drain Outputs
- Up to 125°C (T-Series)
- UL1577 / IEC 61010-2001

More than 25 wide-body SOIC isolators part types are currently [in stock](#) and available for immediate delivery with no minimum order:

Part Number	Mbps Data Rate	Tx/Rx Chan	Input	Key Features	Max. Temp.
IL514	2	2/1	Digital	DC correct; Output Enable	85°C
IL515	2	4/0	Digital	DC correct; Optional Ext. Clock	85°C
IL516	2	2/2	Digital	DC correct	85°C
IL613	100	3/0	Passive		85°C
IL614	100	2/1	Passive	Output Enable	85°C
IL715	110	4/0	Digital	Output Enable	100°C
IL716	110	2/2	Digital		100°C
IL717	110	3/1	Digital		100°C
IL715T	110	4/0	Digital	High Temperature	125°C
IL716T	110	2/2	Digital	High Temperature	125°C
IL717T	110	3/1	Digital	High Temperature	125°C
IL260	110	5/0	Digital	Five Channel	85°C
IL261	110	4/1	Digital	Five Channel	85°C
IL262	110	3/2	Digital	Five Channel	85°C
IL3122	5	RS-422	Passive	32 nodes; 15 kV Bus ESD	85°C
IL3185	5	RS-485	Passive	32 nodes; 15 kV Bus ESD	85°C
IL3222	5	RS-422	Passive	Fractional Load (256 nodes)	85°C
IL3285	5	RS-485	Passive	Fractional Load (256 nodes)	85°C
IL3422	20	RS-422	Passive	32 nodes; 15 kV Bus ESD	85°C
IL3485	20	RS-485	Passive	32 nodes; 15 kV Bus ESD	85°C
IL422	25	RS-422	Digital	Industry Standard	85°C
IL485	35	RS-485	Digital	Industry Standard	85°C
IL485W	35	RS-485	Digital	RS-485 + handshake	85°C
IL3522	40	RS-422	Digital	Very High Speed	85°C
IL3585	40	RS-485	Digital	Very High Speed	85°C
IL3685	40	RS-485	Digital	PROFIBUS	85°C

[Buy Online](#)
\$9.95 shipping

From the Application Desk

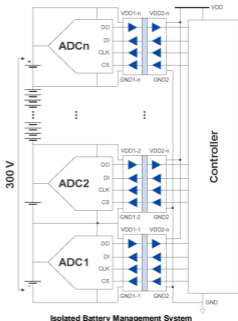
Real-world questions from the NVE Application Desk

By **Sandy "Volt" Templeton**
Director, Isolator Product Development and Applications

Q. I know the isolation voltage for most IsoLoops is 2,500 Vrms for one minute, but what can they withstand continuously?

A. The maximum voltage that can be applied between the input and output pins of an isolator indefinitely without damage is called "endurance voltage." Endurance voltage is typically not specified in data sheets and may be the least well-known high-voltage specification. Nevertheless, it is useful in applications where the isolators are not subject to line voltage transients. The endurance voltage for IsoLoop Isolators has been determined to be 800 Vrms based on qualification testing.

This battery management system for measuring the voltage of each battery cell of a DC to AC inverter illustrates an application where endurance voltage is important:



The last isolation stage is a full 300 V above the controller ground, so the isolator is subject to 300 V between inputs and outputs.

Because the isolators have an endurance voltage of 800 Vrms, or 1,130 Vpeak, the isolators can be expected to withstand up to 1,130 Vdc indefinitely, and will easily withstand the voltages in the circuit above.

[<More Info \(.pdf, Application Bulletin No. 18\)>](#)