NVE CORPORATION

Sensor and Isolator NEWS

July 2013 *Electrifying News From NVE*

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Document Updates

IsoLoop Isolator datasheets

Specification upgrades and maintenance updates (see story at right).

NSF Grant

NVE was recently awarded a prestigious **National Science Foundation** grant to develop innovative biosensors.

More >

Independence Day

NVE will be closed for the July 4 holiday.

Isolator Specifications Upgraded

Extensive product testing and process characterization has led to a comprehensive upgrade of several important specifications for award-winning IsoLoop® Isolators.

Key upgrades are:

- Best-in-class common-mode **transient immunity** specifications (30 kV/µs minimum; 50 kV/µs typical)
- Best-in-class **high voltage endurance** specifications (1000 V_{RMS}; 1500 V_{DC}).
- **VDE 0884** compliance data
- Increased **magnetic immunity** specifications
- Tighter package **tolerances**; True 8™ (8 mm creepage) versions

In addition to the recent upgrades, IsoLoop Isolators have the smallest packages, least jitter, best EM emissions, and longest barrier life of any devices in their class.

IsoLoop Isolators. The first. Still the best.

Datasheet Downloads

Related Documents:

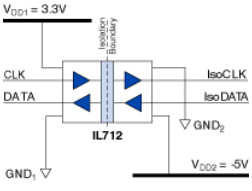
- AB-13: IsoLoop Isolators Have Low Emissions, Low EMI Susceptibility, and Excellent Magnetic Immunity (.pdf)
- AB-18: IsoLoop Isolators Have Best-in-Class Endurance Voltage (.pdf)
- AB-22: IsoLoop Isolators Have Best-in-Class Transient Immunity (.pdf)
- AB-23: NVE Isolators Feature TRUE Eight Millimeter Creepage (.pdf)

From the Applications Desk

Isolator Power Supply Offset and Level Shifting

A common question to our Isolator applications desk is whether IsoLoop isolators can work with positive and negative supplies of different voltages.

They can. The following circuit is a simple bidirectional interface between +3 volt and -5 volt systems:



Level-Shifting Isolator With Power Supply Offset

Voltage levels for IsoLoop isolators can be shifted up to 1500 volts (the maximum endurance voltage), between the two supplies. In this case, the supplies are shifted 5 volts. And because the two sides of the isolation barrier operate independently, the isolators can be used as level shifters.

“Endurance voltage” is the maximum voltage that can be applied between the input and output pins of an isolator indefinitely without damage is called endurance voltage. For IsoLoop Isolators, it is 1000 Vrms or 1500 Vdc indefinitely, and will easily withstand the 5 volts in the circuit above.

Email the Isolator Applications Desk >