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**Intrinsically-Safe Isolators**

In May a number of NVE isolators were certified under stringent ATEX and IECEx requirements for use as isolating components between intrinsically safe circuits (IS-to-IS) in explosive atmospheres.



**Non-Ignition**

Certification ensures that when used within recommended entity parameters, these isolators will not become an ignition point when short circuited or if connected circuitry fails.

**Worldwide Certification**

ATEX Equipment Directive is a European certification, while IECEx is accepted in many other countries, including the U.S., China, and Japan.

NVE has both ATEX and IECEx certifications, so the isolators can meet intrinsic safety requirements almost anywhere in the world.

**Widest Operating Range**

Intrinsically Safe "Zones" are defined as where dust or gas can create hazardous conditions. Components in an IS zone cannot provide a source of ignition. Energy to components in IS zones must be limited, and IS-zone power supplies must be in the Safety Extra Low Voltage (SELV) range of 24 to 60 volts.

Unlike other isolation components, NVE isolators can operated over the full SELV range.

**Three Intrinsically Safe Families**

Three isolator lines have Intrinsically Safe versions:

[IL7xxVE-Series](#) isolated datacouplers are rated at best-in-class 6 kVrms Reinforced Isolation and 1.2 kVrms Working Voltage under the stringent VDE V 0884-11 standard, providing the ultimate in rugged safety.

The [IL3685VE](#) isolated RS-485 transceiver is fully compliant with PROFIBUS and RS-485 standards and designed for harsh environments. In addition to being Intrinsically Safe they have 15 kV bus ESD rating, thermal shutdown protection and are hot-plug capable. They are also rated at best-in-class 6 kVrms Reinforced Isolation and 1.2 kVrms Working Voltage.

[IL0xx-Series](#) isolators are low power and Intrinsically Safe, reducing energy usage in hazardous areas or allowing more channels for a given power budget.

The IL7xxVE-Series and IL0xx-Series isolators are available in various channel configurations. Here is a summary of the Intrinsically-Safe parts:

Intrinsically-Safe Isolators			
Part Type (click for more info)	Channel Configuration	Package	Features
<a href="#">IL711VE</a>	2/0	Wide-body SOIC-16	6 kVrms Reinforced Isolation; 1.2 kVrms Working Voltage
<a href="#">IL721VE</a>	1/1		
<a href="#">IL715VE</a>	4/0		
<a href="#">IL716VE</a>	2/2		
<a href="#">IL717VE</a>	3/1	SOIC-8	Low power
<a href="#">IL011-3E</a>	2/0		
<a href="#">IL012-3E</a>	1/1	Wide-body SOIC-16	6 kVrms Reinforced Isolation; 15 kV bus ESD
<a href="#">IL015E</a>	4/0		
<a href="#">IL016E</a>	2/2		
<a href="#">IL017E</a>	3/1		
<a href="#">IL3685VE</a>	RS-485 / PROFIBUS	Wide-body SOIC-16	

**Smoking the Competition**

Here's a demonstration of the Intrinsic Safety of NVE Isolators:



[Download the Intrinsically Safe Application Bulletin »](#)

**Buy Online**  
\$9.95 shipping

**Upcoming Tradeshows**



NVE will be at **Sensors Converge** June 27 to 29 in San Jose, Calif. See us in booth 1028.

NVE will also be at **Embedded World** June 21 to 23 in Nuremberg, Germany. See us in Hall 1, Booth 578 in cooperation with our distributor Hy-Line Power.