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**Isolator Design Contest**

Customers are always finding innovative ways to use NVE's unique IsoLoop Isolators. [Send us](#) your best novel application, and if we use it on our Website, we'll send you a **free NVE T-shirt**.

**Featured Distributor**



Newark has many NVE IsoLoop digital isolators and digital transceivers in stock for immediate delivery.

[<Isolators via Newark>](#)

**NVE In the News**

"Analysts say the advantage of these [NVE] components is that they are smaller, faster and less power-hungry than conventional components..."

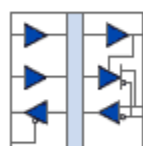
—Feature on NVE  
*Star Tribune*  
January 11, 2009

[<Links to this and other articles about NVE>](#)

**Product News**

**IL3000-Series Transceiver Price Cut**

Award-winning IsoLoop isolated transceivers have always been the best RS-485, RS-422, and PROFIBUS solution. Now they are even more cost-effective—as low as \$2.60 each in 1,000-piece quantities (IL3122 and IL3185). Parts are in stock now and available for immediate delivery.



IL3x85 isolated RS-485 transceivers.

Key IL3000 features include:

- Integrated Transceivers and Isolation
- 0.15" and 0.3"-Wide 16-pin SOIC
- 3 V or 5 V Power Supply
- Digital and Passive Input Versions
- PROFIBUS Version (IL3685)
- Up to 40 Mbps (IL35xx)



Unique 0.15" SOIC

[<IL3000 Selector Guide>](#)

**Buy Online**  
\$9.95 shipping

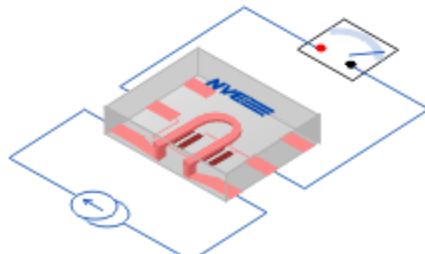
**24 Volt Current Sensor**



Maximum bridge input voltage for the new AAV003-10E GMR current sensor is now specified at 24 V rather than 12 V. The higher range is compatible with PLCs, and provides a remarkable typical sensitivity of 2 mV/mA with no amplification from -80 mA to +80 mA.

In addition to the higher bridge voltage specification, the parts now have an isolation voltage specification of 240 Vrms.

AAV003-10E current sensors are targeted at circuit board current sensing for process control and instrumentation. High sensitivity makes them ideal for 4-20 ma current loop detection.



AAV003-10E Current Sensor

The parts come in an ultraminiature 2.5 mm by 2.5 mm six-pin TDFN package.

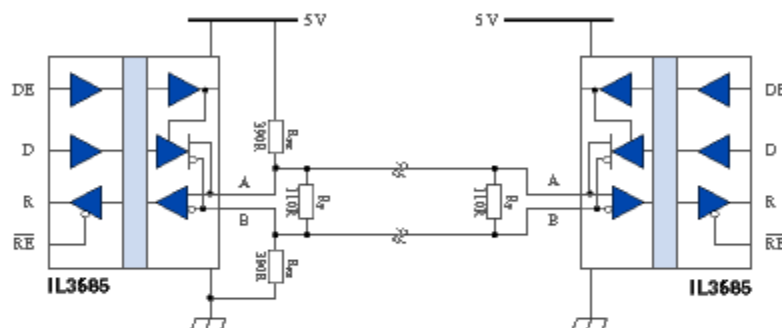
[<NEW AAV003-10E Data Sheet>](#)

**Buy Online**  
\$9.95 shipping

**Application Corner**

**Single-Chip RS-485 Isolated Transceivers**

By [Sandy Templeton](#)  
*Director, Isolator Product Development and Applications*



NVE's single-chip isolated RS-485 transceivers dramatically reduce chip count compared to conventional isolation methods. As the circuit above shows, termination resistors ( $R_t$ ) can be added to maximize speed and transmission length by reducing reflections. Fail-safe resistors ( $R_{fs}$ ) guarantee a known bus state when no transceivers are active.

For more information on how isolated transceivers can dramatically **reduce chip count**, see [Application Bulletin No. 5 \(.pdf\)](#).

For practical tips for **making RS-485 systems work**, see [Application Bulletin No. 6 \(.pdf\)](#).

The NVE Website has a number of other isolator [illustrative applications](#). New applications are always being added.

**Transceiver Part Numbering**

NVE has a broad line of isolated transceiver part types. The numbering system tells you the part type at a glance:

**IL3485-3E TR7**

<b>Base Part Number</b>	<b>Channel Config.</b>	<b>Variant</b>
4 = Legacy Transceiver	22 = RS-422	W = RS-485 Handshake
31 = Passive-In, 5 Mbps Xcvt	85 = RS-485	
32 = Passive-In, 1/8-Load Xcvt		
34 = Passive-In, 20 Mbps Xcvt		
35 = Digital-In, 40 Mbps Xcvt		
36 = PROFIBUS Transceiver		
<b>Package Size</b>	<b>Package Material</b>	<b>Bulk Packaging</b>
.3 = 0.15" SOIC	Blank = Lead (Pb)	Blank = Tubes
Blank = 0.30" SOIC	E = RoHS	TR7 = 7" Tape & Reel
		TR13 = 13" T & R