

## Moore Industries Voted #1 in Signal Conditioners in Control Magazine Reader's Choice Awards

Moore Industries has been ranked first place in Signal Conditioners by Control Magazine Readers' Choice Awards 2010. The top technology category rankings represent end-user sentiment, as the 2010 Control Magazine Readers' Choice Awards were derived from the opinion of over 1,000 process automation professionals.



The Control Magazine article stated, "Our collective hats are off to all the solution providers that made this year's list. To be mentioned at all, each supplier has successfully demonstrated to a significant, loyal contingent of users that they provide the very best technology in their respective domains."

Moore Industries has consistently performed well in the Control Magazine Reader's Choice

Awards, and especially in the Signal Conditioners category, with signature products like the CPT PC-Programmable

Signal Isolator and Converter, and the rugged ECT-DIN Signal Conditioner. Recently, Moore Industries developed the award-winning miniMOORE family of multi-channel signal conditioners including the MIT and MIX with 2-channel, 4-channel and switch-selectable options.



To view the industry's number one line of signal conditioners according to Control Magazine readers, please visit the Moore Industries Signal Conditioner Selection Index at [http://www.miinet.com/products/sg\\_signal.shtml](http://www.miinet.com/products/sg_signal.shtml). In addition to the online product index, *Signal Isolators, Converters and Interfaces: The "Ins" and "Outs"*, a Moore Industries whitepaper, is available for download.

To view the complete 2010 Control Readers' Choice Awards article, go to their website and download the January 2010 issue in PDF or Flash at

<http://www.controlglobal.com/issues/2010/001.html>.

## Brazilian Project Manager Votes for Safety with the STA

A major producer of iron ore in Brazil was revamping existing furnaces and needed to add 122 alarm functions for burner temperature limit control. Local regulations don't require IEC 61508 compliance, so "safety" is considered an extra cost, and a risk assessment for the application was not made.

Some engineers on the project advocated using non-certified (and less expensive) alarm trips, or to use an "all inside the

PLC" solution by just adding some more I/O modules to the existing hardware and making some programming changes.

However, the project manager

The STA Safety Trip Alarms were ultimately selected, even though the initial cost was somewhat higher than the PLC solution. Special thanks to Paolo Capecchi of Westcon Instrumentacao Industrial.

Some items to consider when comparing the STA to a PLC:

1. The STA is a simpler solution; no requirement for software or software expertise.

2. Any change or correction made to the PLC program may require a test of the logic of all points prior to going back on line. Any code change to correct a problem in one area may create a problem elsewhere. The time for testing may cause loss of production time. Each STA is an individual logic solver, so a change on one does not impact the STAs on other loops.

3. The PLC is still a single point of failure. Consider the cost of a systemic problem that causes nuisance trips that are caused by common mode failures or systemic faults found in complex PLC firmware systems. A failure on any one STA will not impact other loops.

4. If a PLC I/O card must be added later it will cost more than adding a single STA.



insisted on specifying Moore Industries' STA Safety Trip Alarms for this project because he felt more confident using a TÜVRheinland-approved Alarm Trip.

## Congratulations to Sales Performance Awards Recipients

Congratulations to Moore Industries Sales Representatives and Rep Office Staff for their achievements in 2009! We recently awarded deserving Sales Representatives and their offices with our Sales Performance Awards.

The Outstanding Sales Performance Award went to Larry Sasfai of Process Solutions, Inc. in St. Louis, Missouri.

The Million Dollar Sales Club Award went to two outstanding sales offices:

1. Andon Specialties, Inc.
2. Gilson Engineering Sales, Inc.

The Quota Crusher Award was given to these top 10 offices:

1. Arctic Controls, Inc. (Anchorage, AK)
2. DanCo Systems, Inc. (Shawnee Mission, KS)
3. Gilson Engineering Sales, Inc. (Chagrin Falls, OH)
4. Gilson Engineering Sales, Inc. (Heathrow, FL)
5. Gilson Engineering Sales, Inc. (Pittsburgh, PA)
6. Jobe and Company, Inc. (Richmond, VA)
7. MacGuire and Crawford (Matthews, NC)
8. Process Solutions, Inc. (St. Louis, MO)
9. RKA Applied Solutions (Oshkosh, WI)
10. Slater Controls, Inc. (Midland, TX)



## STA Safety Trip Alarm Featured in TÜVRheinland Case Study

TÜVRheinland®, the leading provider of testing and certification services for global companies, has released, **Product Safety Case Study: Compliance Testing and Certification**. The **Product Safety Case Study** highlights Moore Industries-International, Inc., a world leader in industrial process control technologies, and their success with TÜVRheinland's third-party certification of their new STA Safety Trip Alarm to IEC 61508: Parts 1, 2 and 3 for single use in Safety Instrumented Systems up to SIL 2.

The **Product Safety Case Study** provides a solution testimonial of this SIL certification process with TÜVRheinland, and documents the complete experience of developing a Functional Safety product.

with TÜVRheinland's certification. With TÜVRheinland's third-party certification to IEC 61508, the Moore Industries STA alarm follows best practices in the safety industry, and appeals to the best interest of end users.

As the IEC 61508 standard has become more widely recognized and adopted by worldwide customers, end users are looking for products that have been designed to IEC 61508 from their initial concept. Customers are demanding not only compliance to the standards but verification from an independent third-party agency such as TÜVRheinland.

"The **Product Safety Case Study** published by TÜVRheinland is an excellent resource, and truly validates the expertise of TÜVRheinland throughout the certification process. The case study demonstrates the importance and advantage of obtaining independent third-party approvals for safety products," Lockhart said.

To download a copy of the **Product Safety Case Study: Compliance Testing and Certification**, please visit [http://www.miinet.com/whatsnew/in\\_the\\_news.shtml](http://www.miinet.com/whatsnew/in_the_news.shtml).



Moore Industries strategically chose TÜVRheinland to provide a third-party safety assessment and IEC 61508 certification for the STA. "It was integral to the product's success that a highly reputable and internationally-renowned third-party agency document the safety and quality of the STA Safety Trip Alarm. TÜVRheinland was the best choice, considering the scope of the approvals process for the STA," said Moore Industries Director of Engineering, Tina Lockhart.

The **Product Safety Case Study** details the rigorous steps required to pass a TÜVRheinland safety assessment, and discusses the great benefits and value added to a product

### About TÜVRheinland®

TÜVRheinland® delivers premier independent testing, assessment, and certification services to help companies gain access into global markets. Boasting an international network across six continents, the company's in-country experts ease the path to compliance with cost-effective pricing and quick turnaround times. The \$1.5 billion corporation is comprised of an international network of more than 13,300 employees in 61 countries and serves most industry sectors and markets worldwide. For more information about TÜVRheinland, visit [www.us.TUV.com](http://www.us.TUV.com).

## Customers Get Answers **FAST** at **E-HELP EXPRESS**



### Three Solutions for Manual Application

**Q:** I have an application where I need a 4-20mA Manual loader station to be placed next to a valve. The user would manually set the output from 4-20mA.

**A:** We can offer several solutions for this application.

The 535 1/4 DIN process controller can be locked in Manual mode so that you can use it to manually adjust the 4-20mA output using the up and down arrow keys on the front panel. The output signal can be displayed on the second line of the front panel display. If there is a power cycle the output will go back to 4mA.

**Model number:** 535-200000D000

The 532 manual backup station can also be locked in Manual mode. The output signal can be shown on the top line of the front panel display.

**Model number:** 532-02110BD000

Many of our user configurable temperature transmitters can accept a potentiometer input, so using an external potentiometer you can adjust the output signal. For example: the model TDY output loop powered transmitter with integral display. It is a "hockey-puck" style transmitter that can be mounted on a DIN-rail.

**Model number:** TDY/PRG/4-20MA/10-42DC [DN]

### Once Again, the NCS Takes the Cake

**Q:** We need a product that could replace the Schweitzer Engineering Laboratories SEL-2505 Remote I/O Module into electric power substations. We have several projects where we need a similar device at a better price. Do you have a product that can meet these expectations?

**A:** Our NCS NET Concentrator System® (NCS) can be used for similar applications as those of the SEL-2505.



The NCS consists of separate communications and input/output (I/O) modules which can be plugged together in order to obtain the desired number and type of I/O.

It can be provided with MODBUS RTU communications over RS-485 cable, or MODBUS TCP over Ethernet.

A separate converter is required in order to use fiber-optic communications.

The NCS can be configured to interface with a host device, or to read the digital inputs/outputs at one site and repeat them at another site.

Please describe your application in detail, the number of inputs and outputs at each site, the number of sites, type of cable, type of protocol, etc.

### Convert Analog Signal with FCT or SIX

**Q:** It is our wish to convert a 24Vdc 4-20mA analog control signal from a Digital Control System into a 10-50mA analog control signal to handle a resistive load of 140 ohms. We were looking at the SCX Signal Current Isolator but it looks as though it can only handle a load of 100 Ohms.

Is there a solution Moore Industries would recommend? If possible, we would like the signal isolator to be either loop-powered or powered by 120Vac.

**A:** The FCT Field-Configurable Signal Isolator and Converter (4-Wire) is available with a 10-50mA output which can drive up to 480 ohms. It is DIN-rail mounted and is line-powered by a wide range of either AC or DC voltage.

The SIX is an output loop powered 2-wire unit which is available with a 10-50mA output. It is also DIN-rail mounted. With a 24Vdc power supply connected in series with its output you can drive up to 240 ohms.

### What is the FMEDA Option?

**Q:** What does the FMEDA option mean for the CPT modules? Is the product different? Do we receive additional paperwork?

**A:** The FMEDA option (this code is added to the model number, e.g., CPT/TPRG/0-20MA/117AC/-FMEDA [DIN]) provides 72 hour burn-in, special labeling, and extra documentation including a copy of the FMEDA report. There is an extra charge for this option.

A PDF copy of the FMEDA report is available on request at no charge. The contained data applies to all CPT units, whether or not the FMEDA option is specified in the model number.

## CPT PC-Programmable Isolator Edges Out Competition for Nuclear Power Plant Application

A nuclear Power Plant in California selected Moore Industries' CPT PC-Programmable Temperature Transmitter and Signal Isolator/Converter to monitor safety circuits throughout the plant. The plant provides low-cost, carbon-free electricity for nearly three million northern and central California homes.

The need for the CPT arose because the Power Plant needed an isolator that could take voltage, current or thermocouple inputs, and output 0-20mA to their data acquisition and control system units. The Power Plant also wanted off-the-shelf programmability. The versatility of the CPT family, with the ability to be used as a temperature transmitter and as an isolator, was highly desirable—it would cut down on the number of probable models stocked for these applications.

Paramount to these needs, was the need for the product to meet nuclear safety standards including having the necessary seismic qualifications, RFI/EMI and frequency ratings.

The CPT isolator needed to be certified by a third-party agency. Although Moore Industries had certified the ECT-DIN, FCT and SPT, the CPT had not yet been tested. Once again, the Power Plant loved the CPT unit's versatility and PC-programmable capabilities, preferring it to the other isolators.

Fortunately, the Power Plant was in the process of sending out other instruments to a third-party testing facility and opted to send the CPT to be tested as well. The timing happened to be fantastic and the customer's cost was minimized.

Altogether, the customer ordered 117 CPT units, 94 for the application and 23 spare units. Valued at almost \$70,000 dollars, the order was comprised of temperature input units (CPT/TPRG/0-20mA/24DC/FMEDA-RF [DIN]) and high level input units (CPT/HLPRG/0-20mA/24DC/FMEDA-RF [DIN]).



The CPT was the absolute best-fit for the application. In addition to the versatility and programmability, the customer selected the CPT based on the following features:

- **Universal Plant Standard.** There is no need to stock dozens of different fixed range transmitters.
- **20-bit input resolution.** Delivers industry-best digital accuracy for both sensor (RTD and thermocouple) and analog (current/voltage) inputs.
- **Long term stability.** Provides up to 5 years between scheduled calibrations.
- **Isolated and RFI/EMI protection.** Delivers superior protection against the effects of ground loops and plant noise, and radio frequency and electromagnetic interference.

Special thanks to Sales Representative Andy Shogren of Process Instruments & Controls in Bakersfield, California. Additionally, Moore Industries' Regional Sales Manager Charlie Fetty and Director of Sales Support Matt Moren were instrumental in the sale.

### Sales Reminder:

Don't forget to accessorize!! Moore Industries has a complete line of complementary products and accessories! We encourage you to view the entire line at [http://miinet.com/products/ca\\_complementary.shtml](http://miinet.com/products/ca_complementary.shtml).

Remember, we have:  
Instrument Power Supplies  
[http://miinet.com/products/data\\_sheets/power.pdf](http://miinet.com/products/data_sheets/power.pdf)

Enclosures, Racks, and Rails  
[http://miinet.com/products/sg\\_enclosuresys.shtml](http://miinet.com/products/sg_enclosuresys.shtml)

Superior Surge Suppressor Solutions  
[http://miinet.com/products/data\\_sheets/surge.pdf](http://miinet.com/products/data_sheets/surge.pdf)

Frequency and Pulse Converters, our most popular being the FDY.  
[http://miinet.com/products/data\\_sheets/fdy.pdf](http://miinet.com/products/data_sheets/fdy.pdf)

We also carry Integrators and Totalizers, as well as Linearizers and Characterizers!

