

# Mtech Product Update



Product News

[www.bannerengineering.com](http://www.bannerengineering.com)

## Banner SureCross™ FlexPower™ Wireless Nodes Win Control Engineering's 2007 Engineers' Choice Award



Banner Engineering Corp. announces that their SureCross™ FlexPower™ Wireless Nodes have won Control Engineering's 2007 Engineers' Choice Award under the "Wireless Solutions" subcategory. Banner's SureCross Wireless Network was introduced last summer to provide a robust monitoring and control solution purpose-built for industry. FlexPower Wireless Nodes can operate using 10 to 30V dc line power, solar panels, or a FlexPower battery module for applications where DC power is not readily available. A single FlexPower battery module can power both a SureCross Node and connected sensors for up to five years. Long-lasting operation, reliable communications and easy installation made the FlexPower Wireless Nodes a popular choice with Control Engineering readers. Amidst the numerous new technologies covered by Control Engineering each year, SureCross FlexPower Nodes stood out in the crowd.

"Each year, Control Engineering receives hundreds of new product announcements detailing the latest technologies available to automation

professionals," said Marc Moschetto, Control Engineering's editorial director. "The Engineers' Choice Awards empower our readers to identify those solutions which will have the greatest positive impact on their business, and we congratulate Banner Engineering for this achievement."

The publication's annual competition began as the Editor's Choice Award, for which the editorial team determined the winning products among the many exceptional submissions received through the year. In 2007, Control Engineering left the decision-making up to their readers, who work with these products on a regular basis. Now dubbed the Engineers' Choice Award, the honor is granted to the product receiving the most votes in one of several categories—this year, selected from more than 150 product nominations divided into seven categories. Control Engineering received responses from over 870 individuals responsible for purchasing, implementing or operating the technologies in these respective industrial areas. The products chosen indicated the solutions determined to be the most noteworthy and to provide the greatest advantage in day-to-day production. FlexPower Wireless Nodes use efficient power management technology that enables the Node to briefly step up the switch power voltage to activate a sensor for a fraction of a second. After the input reads the sensing status, the switch power returns to its standby status, prolonging battery life. All SureCross devices are also conveniently sized and easily mounted for simple integration into existing manufacturing systems, all with the robust communications and rugged construction required for reliably monitoring and controlling rotating or remote equipment to solve the most challenging applications.

## SLM Series Slot Sensors—Self-contained opposed-mode sensor pairs

Banner has released a line of low-cost, durable slot sensors in an array of sizes for opposed-mode sensing that employs simple mounting and requires no fibers or alignment. Establish an alternative for existing fiber and slot sensors based on ease-of-use, housing integrity, and performance.

### FEATURES



- Rugged, sealed, die-cast metal housing is rated IEC IP67 (NEMA 6)
- Easy and economical to mount; molded-in beam guides simplify beam placement
- 8 slot widths from 10 mm to 220 mm for a wide variety of sensing applications
- 10 to 30V dc operation
- Current sourcing (PNP), current sinking (NPN), or Bipolar (one NPN and one PNP) output, depending on model
- Fast 500-microsecond response time
- Single-turn potentiometer Sensitivity adjustment
- Visible red beam
- Selectable Light Operate (L.O.) or Dark Operate (D.O.) with sealed switch

## Coming Soon 2008-2009 Sensors Catalogs - p/n 78+66

576 pages including: WORLD-BEAM® Q20 - 12 mm barrel sensors - R-GAGE™ radar sensors - EZ-ARRAY™ Measuring Light Screens - WORLD-BEAM Q12, QS18 and QS30 families — SureCross™ Wireless — EZ-LIGHT™ - Expanded Vision section

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The Undisputed Sensor Market Leader.

### Banner Engineering offers the following Industrial Automation Solutions:

- Sensors—Photo Electric, Laser, Fiber Optic, Ultrasonic, EZ Lights
- Measurement and Inspection Products
- Wireless I/O
- Certified Safety Rated Products
- Vision Sensors and Lighting



## Banner Vision Sensor Application Note— PresencePLUS® P4 GEO—Cap Orientation

### Application

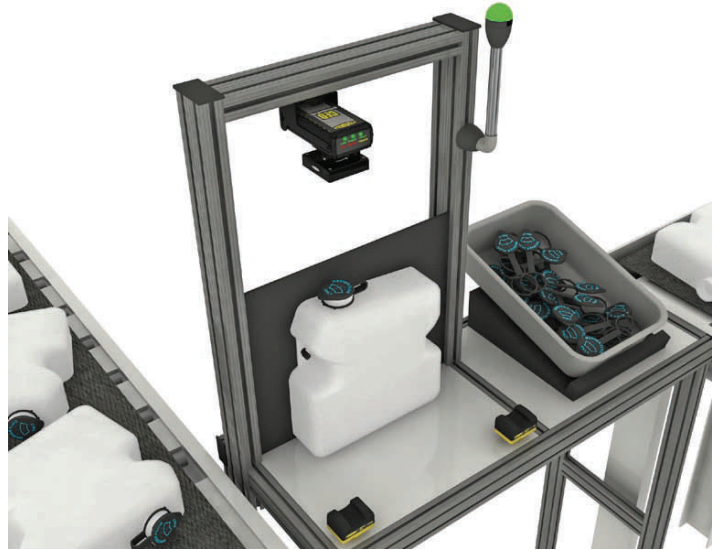
A manufacturer of windshield washer reservoirs is required to error-proof cap presence and orientation prior to shipment to the assembly plant. The solution requires a sensing methodology that not only detects the cap, but also assures that its orientation is within an acceptable range.

### Solution

Banner's PresencePLUS P4 GEO is a simple one-piece, low-cost vision solution which utilizes a GEO Count tool to recognize patterns which rotate 360°. Parameters are set in the inspection tool to limit the acceptable amount of rotation a pattern (cap) can have and generate a fail output, should the rotation threshold be exceeded.



PresencePLUS P4 GEO In-Line and Right-Angle Cameras



Banner's PresencePLUS P4 GEO ensures the reservoir cap is present and properly oriented.

## minifast® Field Wireables with Up to 12 Pins

TURCK's 7/8 16UN minifast field wireable line has been expanded to accommodate up to 12-pins. "These field wireables are excellent for efficiently converting hard wiring to quick disconnect, and they provide IP 67 protection," says Janelle Gregerson, marketing manager for TURCK's connectivity division.

In addition to the 3, 4 and 5-pin field wireables currently available, TURCK now offers 6, 7 and 8-pin in a 1 inch thread connector, as well as a 9, 10 and 12-pin in a 1 1/8 inch thread connector.

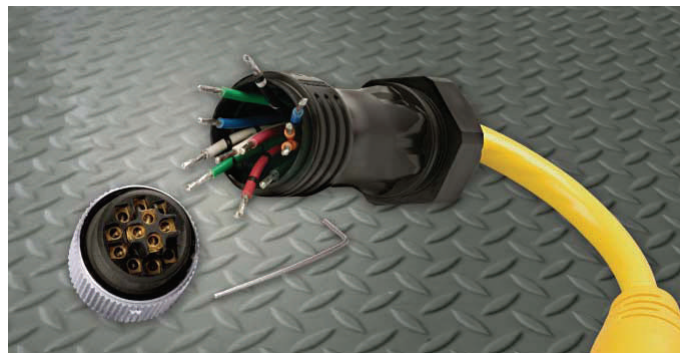
TURCK's 6 through 10 and 12-pin field wireables are designed to handle up to 18 mm cable diameters, 14AWG conductors and are rated for up to 8 Amps at 600 VAC/VDC. The field wireables are available in male or female configurations for use with custom wiring, junction boxes and sensors.

### Target Markets:

Food and beverage—Material handling—Industrial applications where field wireable connectors are needed

### Selling Strengths:

TURCK is the only manufacturer of 6 through 10 and 12-pin minifast field wireables.



Turck offers the following Industrial Automation Solutions:

Proximity Sensors—Capacitance Sensors—Temperature, Pressure, and Flow Sensors  
Cordsets and Connectivity Products—Rotary & Linear Encoders—Network I/O—RFID

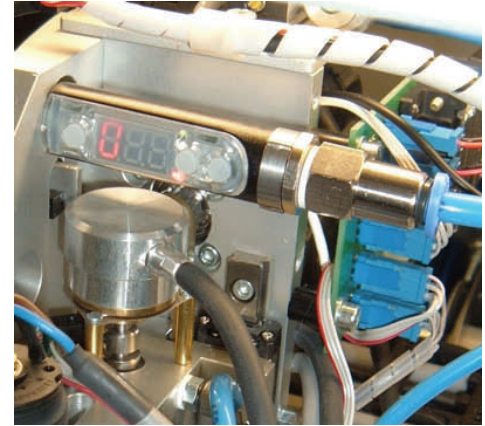


## Economical Pressure Sensors for Switch Point Detection

TURCK announces the addition of PK pressure sensors to its growing line of pressure instruments. PK pressure sensors were designed to provide an economical sensor for switch point detection in air and inert gas applications. The compact sensors are IP 65 rated, and ideal for use in pneumatic and robotic applications.

PK sensors are available in two body styles, the pico and the nano, to support a broad range of mounting options. The sensor is programmed through easy-to-use push buttons, and the display menu may be inverted for additional programming flexibility.

PK sensors provide the two pressure ranges most commonly found in pneumatic applications: -29.5 to 0 inches of Mercury (-1 to 0 bar) and 0 to 145 psi, with 3 percent accuracy. Two PNP switch points and an integrated M8 pico connector further the sensors' applicability in many industries.



PICO—PK010R-PI4



NANO—PK010R-NI4

**\$145**

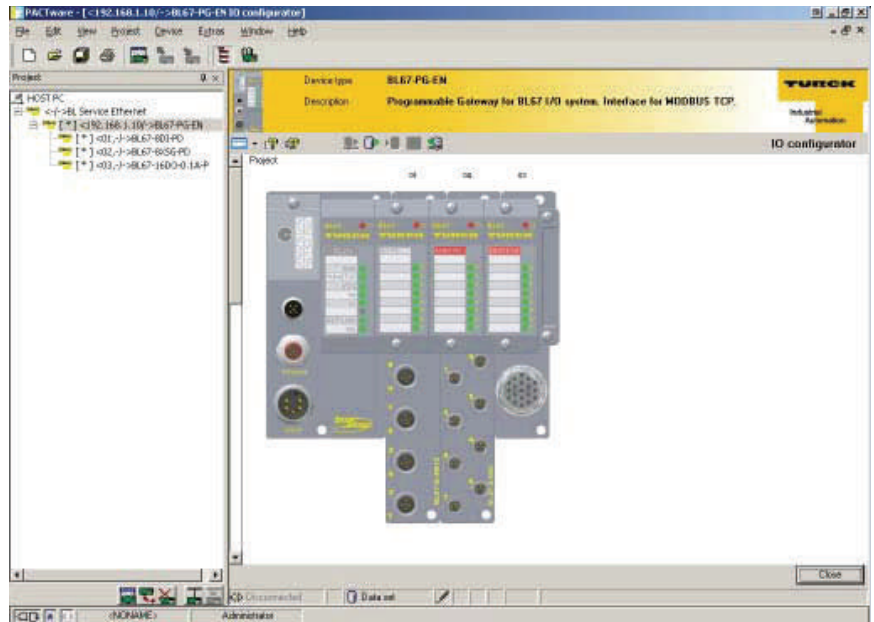
## Free I/O Configuration Software from TURCK

TURCK's network and interface division, has launched the latest version of its popular I/O assistant software, V3.0. The new I/O assistant V3.0 package is now available for download completely free of charge at [www.turck-usa.com](http://www.turck-usa.com).

I/O assistant is used as a configuration tool when designing TURCK's BL20 in the panel, and BL67 on the machine I/O nodes. It can verify I/O arrangements and make suggestions based on power consumption and part compatibility – all while allowing the user to create a documentation set that includes photos of the station, a list of settable parameters, dimensions of the station for mounting considerations and a complete bill of materials. It will even generate the fieldbus I/O map for reference.

I/O assistant has been an integral part of TURCK's complete I/O solution for many years, and it has undergone a major change. The V3.0 software package incorporates the use of FDT/DTM technology. Turck has chosen to use PACTware as their suggested FDT, however any FDT should work. Users may download the BL20 and BL67 DTM's, or the full bundle complete with PACTware, the DTM's and an instructional video to get started. All downloads are completely free of charge and can be used with or without TURCK hardware.

I/O assistant may also be used when commissioning and troubleshooting hardware. Users can automatically import the hardware node, or add each module separately. All TURCK BL gateways come equipped with a maintenance port that connects to a computer via RS232, or may be connected using Ethernet (when equipped). When connected, the system can read inputs, write outputs, read diagnostics, and read/change parameters.



For More information go to <http://www.turck-usa.com/Support/Downloads ~ Software/IO Assistant Software.htm>



## Products for Factory and Process Automation

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[www.mtechmn.com](http://www.mtechmn.com)

Mtech Represents  
the following fine products



## OUR OBJECTIVE

Mtech is a manufacturer's representative dedicated to providing customers with solutions to their factory and process automation applications. This objective is accomplished through the skills and efforts of our experienced and talented team.

## REGIONS SERVED

### TURCK, BANNER, & AMC

Minnesota, Western Wisconsin, North Dakota, & South Dakota

### EXLAR

Minnesota, Western WI, North Dakota, South Dakota, Iowa, & Nebraska



EXLAR – Application Note

[www.exlar.com](http://www.exlar.com)

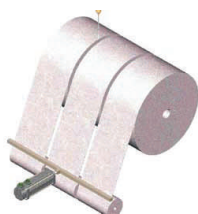
## Smooth and Accurate Rotary and Linear Motion Control - Servo Actuators For Medical

### The Benefits of Electric Actuators

Electric actuators provide clean, easy-to-use rotary and linear motion for all types of motion control applications in the medical device industry. Electric actuation utilizing servo controls also provides a low maintenance, environmentally friendly, and high efficiency solution.

### Ideal Replacement for Fluid Power Actuators

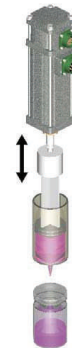
Exlar's all electric actuators are excellent replacements for hydraulic and pneumatic actuators. Exlar's patented GS Series actuators offer power density similar to hydraulic actuators without the inconvenience, mess and maintenance required of oil powered hydraulic systems. Providing twice the efficiency of hydraulic systems, an Exlar solution can save significant energy costs. Using commercially available servo amplifiers, the set-up time of an Exlar electric system is far less than a fluid power system.



Perfect solutions for high response web controls, Exlar actuators provide high force, speed and precision, all from a very compact, completely sealed package.



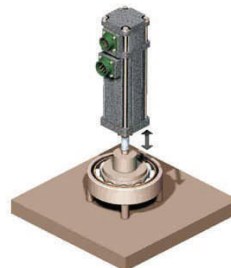
Fastening and joining applications can be made more precise with increased throughput using Exlar's all electric actuators. High cycle rate capability and high shock load capacity make Exlar's actuators a reliable motion solution.



20 years of experience as the leading supplier of volumetric filling, fluid dispensing and pumping actuators makes Exlar an excellent actuator source for your fluid dispensing systems. Other applications include:

- Fluid Dispensing
- Volumetric Filling
- Web Guiding and Control
- Ultrasonic Welder Positioning
- Water Jet Control
- Laser Positioning
- Presses
- Fastening and Joining
- Table Positioning
- Patient Lifts
- Wheel Drives

Controlling ultrasonic welding equipment, laser cutters or water jet cutting heads are all perfect applications for the precise high force motion available from Exlar actuators. High force and precision from Exlar's actuators makes them ideal for assembly presses. Precision position control at high forces and high stiffness make Exlar actuators perfect for applications requiring force sensing as well as positioning.



Patented Roller Screw technology provides an electromechanical replacement for your hydraulic or pneumatic cylinders. These digitally controlled products eliminate the heavy maintenance requirements of fluid power actuators.

Compared with other electro-mechanical actuators, Exlar's roller screw technology offers many times the life of ball screws. Please visit [www.exlar.com](http://www.exlar.com) to see our products, technology and applications . . . you'll see that Exlar solutions extend beyond conventional motion control.

[www.mtechmn.com](http://www.mtechmn.com)