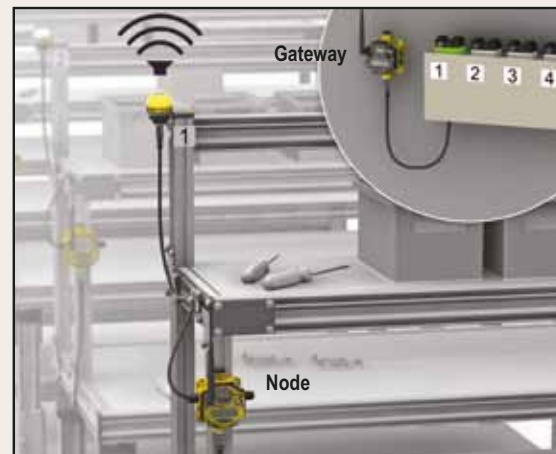




SureCross Wireless uses a proprietary protocol to provide the highest level of data security and integrity. Time Division Multiple Access (TDMA) and Frequency Hopping Spread Spectrum (FHSS) communication technologies work together to ensure the transfer of signals is reliable and deterministic. This allows SureCross to be used effectively in both data monitoring and control applications and can result in significant cost savings.

- Two-way communication between the Gateway and Node(s), including fully acknowledged data transmission
- FlexPower™ power input options allow for +10-30V dc, solar and battery power sources
- Gateways supporting wired-communication protocols easily interface with existing PLCs, HMIs and other network hosts
- 900 MHz and 2.4 GHz models accommodating worldwide communication standards
- Rugged IP67/NEMA 6 design enabling simple plug-and-play installation



**Application Profile: Call for Parts or Service**

With a SureCross™ Wireless Network call for parts are transformed into completely mobile installations. A single SureCross Node at each workstation equipped with push button and K50 audible indicator light allows an employee to call for anything without leaving their primary task. A SureCross Gateway is wired with a VTB latching touch button to acknowledge the call without leaving a central control station. This unique wireless solution can be moved and scaled as manufacturing requirements change.

Wireless



# Industrial Solutions

**Worldwide service and support.** Banner is a global leader in process and factory automation, helping customers increase efficiency, reduce costs, ensure quality, monitor and control processes, and safeguard employees.

## Introducing iVu Plus Image Sensors

The new iVu Image Sensor series includes both the integrated touch screen as well as the remote touch screen display models. The latest additions to Banner's iVu Image Sensor family delivers the same intuitive interface and functionality of the iVu as well as three new powerful features:

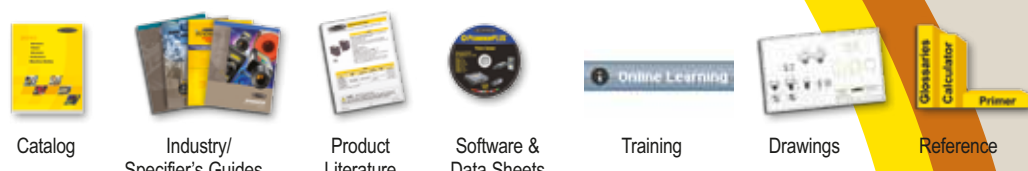
- Ethernet provides the capability to control and communicate with the sensor for better system visibility and enhanced control.
- Multiple inspections provide the capability of storing and controlling up to 30 inspections for fast product changeover.
- The Sort Sensor can recognize and sort up to ten different patterns within the same inspection.



**iVu Plus**  
Four advanced sensors in one compact and rugged package: Match, Area, Blemish and Sort



**iVu Plus with BCR**  
All the inspection capabilities of the iVu Plus and high-performance reading of industry standard bar codes



**Banner eNewsletter**  
To receive Banner's HTML email newsletter, register at [www.bannerengineering.co.in](http://www.bannerengineering.co.in)

**Coming Soon**  
**Banner's 2011 Catalog**



**more sensors, more solutions**

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for the latest products, information, innovations and solutions

## PresencePLUS® Vision Sensors

**Comprehensive Vision Capabilities in an Affordable, Easy-to-Use Sensor**

The general-purpose PresencePLUS® Pro and P4 OMNI can solve nearly any inspection challenge.

- Full-featured; economical one-piece or two piece design
- Complete suite of location, inspection, geometric and analysis tools for inspecting multiple features and solving complex applications
- Standard and high-resolution 1.3 megapixel gray scale, and color models for nearly any inspection challenge
- Sealed IP68-rated models for machine vision inspections in dirty or washdown environments
- Ethernet, serial and flexible discrete I/O in same full-featured sensor
- ActiveX utilities for exporting inspections, images and results
- Optional add-on premium tools: Bar Code Reader (BCR), Optical Character Reading and Verification (OCR/OCV) and Bead



Adhesive Bead Verification



Optical Character Reading and Verification



Data Matrix Bar Code Reading

[www.bannerengineering.co.in](http://www.bannerengineering.co.in)



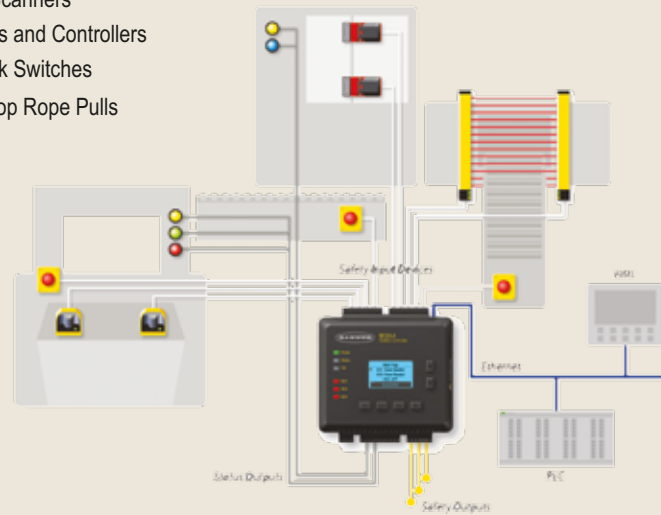
## The Banner Safety Solution— Industry's Most Advanced Safety Systems

Banner's extensive line of safeguarding equipment helps you protect your employees and machinery. Come to us to help you apply the best safeguarding solution.

- Safety Light Curtains
- Fiber Optic Safety Systems
- Two-Hand Control and Run Bars
- E-Stop Push Buttons
- Safety Laser Scanners
- Safety Modules and Controllers
- Safety Interlock Switches
- Emergency Stop Rope Pulls

### SC22-3 Safety Controller with Ethernet

The new, simple solution to safety control and interface. Easy to learn, easy to use. Replace your safety modules!



### PICO-GUARD™ Fiber Optic Safety System

Advanced solid-state controller works with fiber optic elements including Point, Grids, Interlock Switches and E-Stop buttons to guard perimeters, doors and entry/exits. Designed to ATEX, FM and CSA approval, these non-contact optical elements are certified for use in explosive environments.



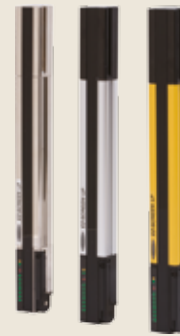
### SI-HG63 Adjustable Hinge-Style Switches

Load-bearing switches provide durable and dependable safeguarding of swinging guards, gates or doors.



### EZ-SCREEN® LP

- Economical, space-saving package
- Low-profile, 28 x 26 mm robust housing
- Easy setup and alignment
- Continual detection along entire light screen
- Innovative mounting solutions



## Sensors

### WORLD-BEAM®

The sensor family that gives you options

From miniature to midsize, our sensors are a perfect fit.

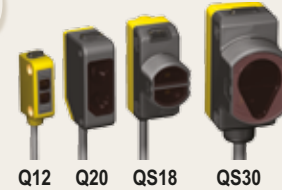
With a wide range of sizes and operating modes, we can solve most of your photoelectric sensing applications.

**Q12 Miniature:** Very small sensor with high performance

**Q20 Compact:** Rugged sensor in the global package, 1200 psi washdown rated

**QS18 Compact:** The most versatile with all sensing modes, including lasers and ultrasonic

**QS30 Midsize:** 30 mm sensors for long-range, high-power, clear object detection and low-contrast applications



### TM18 Rugged Metal Sensors

Metal sensors in popular T-style, right-angle housing with 18 mm threaded barrel mount are ideal for applications in tough industrial environments.



**QS30AF Adjustable-Field Sensors**  
Background and foreground sensing using sophisticated linear array technology. Four-turn potentiometer provides simple adjustment within a 100 to 500 mm range.



## Ultrasonic and Specialty Sensors

### EZ-ARRAY™

Measuring light screen solution for high-speed, high-accuracy sensing

A two-piece system with easy-to-use software and features that excel at precise process monitoring and inspection, profiling and web-guiding applications.



### U-GAGE® T30U Ultrasonic Sensor

T-style right-angle sensor with the popular 30 mm threaded mount withstands hostile environments and solves tough application challenges.



### VSM Heavy-Duty Miniature Sensors

The extended sensing range and tiny stainless steel housing makes the VSM an ideal replacement for range-limited proximity sensors and for areas previously only accessible to remote sensors and fiber optic cable.



### LH Series Laser Sensor

High-precision Laser Displacement sensors provide reliable and accurate measurement results on machined metal, wood, ceramics, paper and painted targets.



## Safety

## Actuators, Indicators & Illuminators



### Smarter, More Versatile Industrial Actuators, Indicator Lights and Illuminators

Banner Lights the Way for Lean Manufacturing!



### EZ-LIGHT™ Indicators

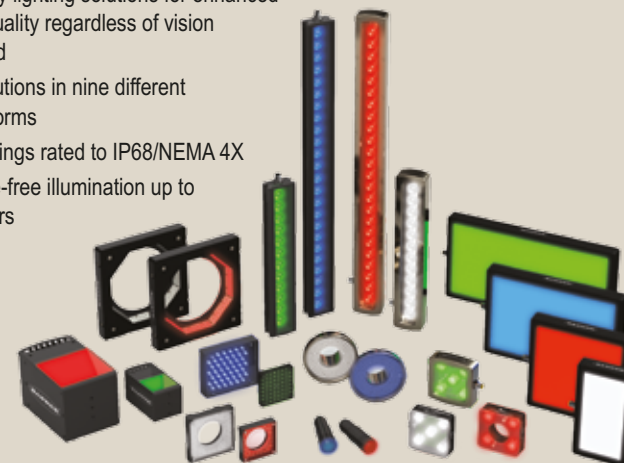
Many styles and packages from 8 to 80 mm with innovative mounting options:

- General Purpose Segmented Column Light
- Multi-Function Daylight Visible Call Lights
- Sensor Emulator Tower Light Audible Combinations

## Vision and Task Lighting for Industrial Applications

### Vision Lighting

- High-intensity lighting solutions for enhanced inspection quality regardless of vision system brand
- Superior solutions in nine different lighting platforms
- Robust housings rated to IP68/NEMA 4X
- Maintenance-free illumination up to 50,000+ hours



### WL50 Work Lights

EZ-LIGHT WL50 Work Lights provide bright, even illumination in areas where space is limited, including control cabinets and panels.



- 50 mm white light for flat or 30 mm base mounting
- Low-profile design with several mounting options
- IP69K polycarbonate sealed housing for washdown and other industrial areas
- Cabled and quick-disconnect models available

### Bin-Picking Error Proofing



### Process Alarm and Indication



### Pick-to-Light Sensors and Actuators

Several housing styles available for operator guidance operations:

**PVD/PVA Arrays:** Easy rack or bin mounting with long-range sensing

**VTB:** Smart, verification touch buttons for many applications

**K50/K80:** Dome style with sensors or push-button actuators

## New! Lighting Products

### EZ-LIGHT™ TL50 Tower Lights

Preassembled and preconfigured multi-segment indicators in robust IP67-rated housing offer higher optical contrast compared to stack lights. Now available in gray housings and high brightness models.



### EZ-LIGHT™ TL30F Tower Lights

Self-contained multi-segment LED indicators in rugged metal housings for flat mounting on horizontal or vertical surfaces.



### LC80 EZ-LIGHT™ Controller

Manually operated controllers for Andon, call-for-parts and machine status indication.



### EZ-LIGHT™ K80 Call Light

Battery-powered light provides operational status indication for personnel and is ideal in locations where access to power is limited or unavailable.

### WLS28 Strip Lights

Rugged, general-purpose led strip lights illuminate a large area with an even pattern.



### Area Scanning



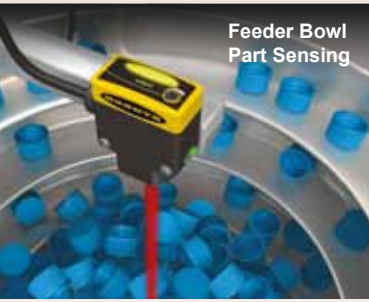
### Complete Safety System



### Swing Gate Monitoring



### Feeder Bowl Part Sensing



### Part Presence



### Part Sensing



### Package Dimensioning



### Task and Enclosure Lighting



### Large Area Illumination

