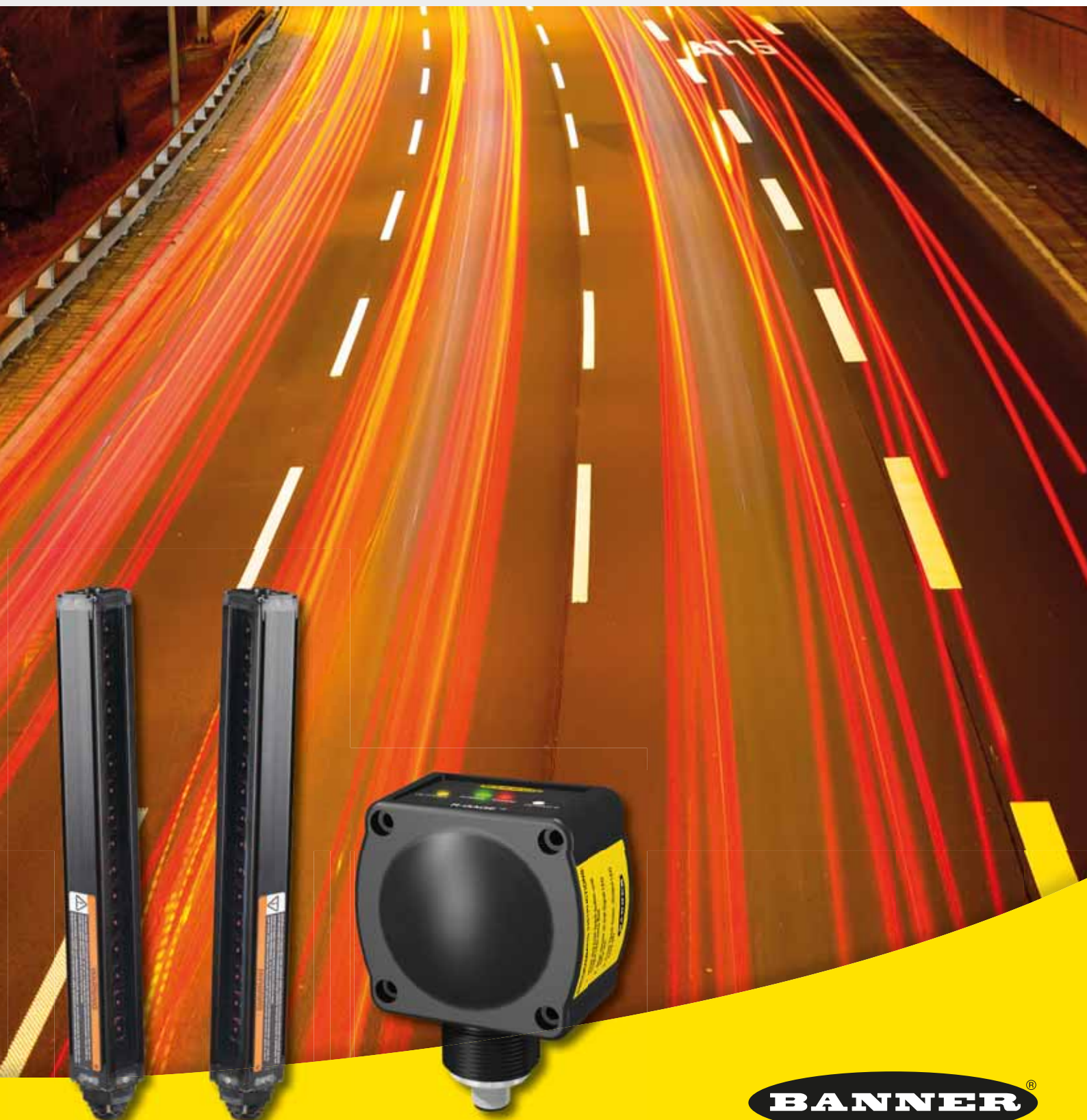


Traffic & Parking Sensing Solutions



BANNER[®]

more sensors, more solutions

Toll Booth

Measuring Light Curtain and High Powered Sensor

Toll booth applications become more and more automated, to eliminate human error and to increase the throughput time for vehicles (like free flow detection). It is important to get reliable information when a vehicle is entering the toll station to define the correct category which is directly linked to the toll charge. The main challenge is that a wide variety of vehicles can come through the station: motorcycles, cars with or without trailers, trucks...

MINI-ARRAY & EZ-ARRAY

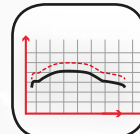
MINI-ARRAY and EZ-ARRAY measuring light curtains, composed of an array with multiple synchronised emitter/receiver pairs at defined distances, can sense the profile of the vehicle. It is also used to detect vehicle separation and sense even the smallest parts like the tow bars.

QS30

Banner's QS30 sensor is built to withstand the most extreme outdoor conditions, with wide temperature fluctuations and high humidity conditions (sealed up to IP69K). Its optical power has been specially tuned to look through mist or fog, and to be sunlight immune, but not miss any cars or trucks. It is the perfect solution for over height detection.



Mini-Array



Fast Profiling

Mini-Array



Robust Housing

QS30



Sunlight Immune

QS30



IP69K

Entry/Exit



Radar Sensor and Traffic Light

Parking access control systems need to know when vehicles are approaching or leaving the parking lot. Established technologies like photoelectric sensors and inductive loops can be influenced by dust or rain, or they are complicated to install (separate cabling for opposed mode sensors or intrusive installation for loops).

R-GAGE Radar Sensor

The R-GAGE QT50R is a FMCW Radar Sensor that can detect both moving and stationary objects, regardless of shape or colour. With its very compact and robust, dirt-resilient IP67 housing and weather immunity algorithms, the sensor is able to withstand harsh winds and other extreme environmental elements. The QT50R is available as a retro version (with background teach) or as a diffuse detection with adjustable cut-off point (each with a maximum range of 15 m).

TL250 Traffic Light

Banner Traffic Lights are preassembled, easy to install indicators for signalling and traffic management control, available with one, two or three indicators. Their high intensity light output levels are ideal for outdoor applications, with excellent visibility even in direct sunlight conditions.



R-GAGE



Snow, Fog, Rain, Wind & Humidity

R-GAGE



Easy Configuration

Traffic Light



High Brightness

Traffic Light



Long Lifetime

Traffic

Wireless I/O and Beacon Light

Traffic management systems need real time information on events for optimum performance. Dynamic information panels for drivers can indicate dangerous situations like approaching a toll plaza too fast, cross walk indication, traffic jam presence behind road curves, wrong way indication... Typically such panels are activated by sensors that are several hundred or thousand meters away. Cabled solutions are expensive and complicated, sometimes impossible to implement.

DX80 Wireless I/O Node and Gateway

Wireless I/O systems can transmit a variety of signals (digital, analogue and RS485) with a response time less than 100 ms up to 3 km distance (line of sight). The radio transmission is license-free, yet it is reliable and secure because of frequency hopping and the use of a proprietary protocol. Units can be powered with industry standard 10 to 30 Vdc, solar panels (ideal for repeater units) or lithium battery with up to 5 years of estimated lifetime.

K50 Beacon Light

The K50 Beacon light is based on ultra-bright LED that offers extremely long lifetimes. They are available in different colours, and the lights can be steady ON or flashed ON/OFF. They are made for outdoor applications with excellent visibility even in direct sunlight. A special designed integrated mirror makes the light visible from the side as well.



<p>Wireless I/O</p> <p>Built-in Signal Strength</p>	<p>Wireless I/O</p> <p>Proprietary Protocol</p>	<p>Wireless I/O</p> <p>Link Loss Output</p>	<p>Beacon Light</p> <p>Long Lifetime</p>
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Parking



Magneto-resistive and Ultrasonic sensors with embedded Wireless communication

Parking occupancy information is important to optimise traffic flow and to avoid congestion when specific parking lanes are full. Simple counting of entry and exit movements is not reliable and cannot provide free space information to the driver. For outdoor parking, sensors can be buried or placed above ground, while for indoor parking ceiling mounted solutions with sensors 'looking down' are still preferred. The wireless communication will relay the information of each individual sensor back to the control room (even with several thousand nodes installed in one location).

M-GAGE Wireless

The M-GAGE Wireless node uses magneto-resistive technology for sensing large ferromagnetic objects. The form factor is a small epoxied 70 mm diameter disk that is only 25 mm thick. It can be buried in the ground or mounted on top of the asphalt inside a specially designed low-profile dome. The sensor has an embedded radio module and batteries with a lifetime of up to 5 years.

U-GAGE Wireless

This newly introduced device is combining an ultrasonic sensor, a light guide indicator and a wireless radio as a complete integrated battery based solution. It is ideally suited for covered parking spaces, where the sensor can be easily mounted to the ceiling. As no cabling or special wiring (like fieldbus cables) is needed, they are easy and quick to install, keeping the installation cost and operational cost very low. Separate ultrasonic-only or light guide indicator-only solutions are also available.

M-GAGE Node for Wireless I/O

<p>Long Battery Lifetime</p>	<p>Loop Replacement</p>	<p>Cable Replacement</p>	<p>MultiHop Network</p>
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Sensors

- Presence/Absence Detection
- Foreground & Background Suppression
- GO/NO GO Inspection
- Gating and Triggering
- Parts Counting
- Level and Distance Measurement
- Positioning
- Contrast and Colour Sensing



Vision

- Vision Sensors with Onboard User Interface
- Pattern Recognition
- Traceability (Barcode, Datamatrix and Text Reading)
- OCR/OCV
- Complex Part Inspection
- Part Orientation
- Assembly Verification
- Colour Inspections



Wireless I/O

- Slip Ring Replacement
- Tank Farm Monitoring
- Livestock Environmental Monitoring
- Water and Wastewater Treatment
- HVAC Remote Monitoring
- Traffic Monitoring & Control
- Remote Sensing in Process Automation
- Cable Replacement
- ATEX Approved Solutions



Lighting & Indicators

- Bin & Part Picking
- Error/Mistake Proofing
- Pick-to-Light & Put-to-Light
- Operator Guidance
- Call for Parts
- Incorrect Pick Signal
- Remote Start/Stop Indication
- Work lights and cabinet lighting



Machine Safety

- Safety Light Screens
- Optical Non-Contact Safety Systems
- Ergonomic Two-hand Control Devices
- Safety Modules
- Emergency Stop Devices
- Safety Interlocking
- Laser Scanners for Safety Applications

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SENSORS



VISION



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SAFETY



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