

An aerial, isometric view of a toll road facility. The scene shows a multi-lane highway with several cars and a large white truck. To the right of the highway is a fenced-in industrial area containing a large warehouse with a dark roof and skylights. In the foreground, there are stacks of pipes, a forklift, and another truck. In the background, there are more stacks of pipes and a large piece of machinery. The entire scene is rendered in a light, monochromatic style with a blue tint.

 **WHERE TO FIND OUR SOLUTIONS**
TOLL ROAD



TECHNOLOGIES



LASER

Laser technology works according to the principle of Time-of-Flight. The sensor sends an intense light impulse in a defined direction and measures the time until the signal returns. As the speed of light is a constant value (approximately 300,000 km/s), this time is directly proportional to the distance between the sensor and the first object encountered by the light impulse.

As a result, and by sending multiple beams in multiple directions (2D or 3D), the sensor is capable of knowing the exact position of any object in its detection area at any given time.



ACTIVE INFRARED WITH BACKGROUND ANALYSIS

Active infrared with background analysis technology works with a background (e.g. a sensor shines infrared light on the floor). In this case, the sensor lights up one or more areas and analyzes the energy that returns. Detection is triggered if there is any significant difference when compared to the original picture.



ACTIVE INFRARED WITH BACKGROUND SUPPRESSION

Active infrared with background suppression technology works on the principle of "triangulation" in which the sensor calculates the distance between the emitter and receiver. The emission angle is already known and the reflection angle becomes the key element as the distance to the object can be calculated according to the position of the reflected spot on the receiver side (a triangle can be drawn when you know one distance and two angles).



PASSIVE INFRARED

Passive infrared technology measures the infrared light radiating from objects in its field of view. Motion or presence is detected when an infrared source with one temperature, such as a human being, passes in front of an infrared source with another temperature, such as the normal environment.



RADAR

Radar technology, also known as microwave technology, is based on the Doppler Effect: the radar sensor continuously emits microwaves with a certain frequency in a defined area. These microwaves are reflected back to the sensor by all of the objects present in its environment.



PIEZO

Piezo technology, also known as piezoelectric, is the process of converting mechanical pressure (pushing a button) into electrical energy. A piezo switch is paired with a field effect transistor (FET) that, when pushed, allows current to flow through the FET.



CAPACITIVE

Capacitive technology detects close-range electrically charged objects. A small voltage is applied to a conductive surface, resulting in a uniform electrostatic detection field. When a conductor, such as the human hand, enters this field, detection occurs.



RADIO CONTROL FREQUENCY

Radio control frequency wireless technology uses transmitters and receivers operating on specific radio frequencies. The transmitter applies a radio frequency alternating current to an antenna, which then radiates radio waves. The receiver receives the transmitted frequency and converts the information into a usable form.



VIDEO

Video technology uses optics and light to create pictures and videos. Enhanced definition cameras capture door environment and traffic usage in full color and high quality. Cameras are used within sensors to increase security and decrease liability.

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SPARROW 2

9 MATRIX FAMILY

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8 LZR®-H100

7 LZR®-I30

CHALLENGES TO MEET



Safety Hazards



Energy Conservation



Streamline Traffic

MICROWAVE SENSORS



FALCON FAMILY

MOTION SENSORS WITH CROSS-TRAFFIC AND PEDESTRIAN REJECTION

- Adjustable detection zones
- Mounting heights from 6 ½ to 23 feet (based on model)
- Six modes of detection filtering for pedestrian and parallel traffic rejection
- IP65 rated enclosure for harsh environments
- Available with 11lb, UL listed explosion-proof housing



SPARROW

VARIABLE MOUNT INDUSTRIAL MOTION SENSOR

- Adjustable detection zones
- Mounting heights from 6 ½ to 20 feet
- Ten sensor sensitivity settings can be applied to optimize detection
- Immunity settings can be adjusted to reduce unwanted detections caused by rain, snow and head vibrations
- IP65 rated enclosure for harsh environments



COLIBRI

UNIDIRECTIONAL MOTION SENSOR FOR OFF-DOOR APPLICATIONS

- Pairs well with LED Signal Lights for warning indication applications
- Mounting heights from 6 to 10 feet
- Variable sensitivity adjustment provide different detection areas
- Lateral angle adjustment for ceiling, wall and low level mount versatility
- Compact size provides flexibility in mounting

ACCESSORIES



MS09

MICROWAVE TOUCHLESS ACTUATOR

- IP65 rated enclosure ideal for harsh environments
- Detection zone from 4 to 24 inches



MS41

STAINLESS STEEL, TOUCHLESS ACTUATOR

- IP55 rated enclosure ideal for harsh environments
- Detection zone from 2 to 24 inches



MS31

MICROWAVE TOUCHLESS ACTUATOR

- Touchless design reduces the spread of germs and bacteria
- Detection zone from 4 to 24 inches

LASER-BASED SENSORS



LZR®-U920 / U921

COMPACT RAW DATA LASER SCANNER

- Maximum detection range of 213 feet
- Background or substrate has limited effect on measurements
- Standard RS485 bus communication (bi-directional)
- No external illumination of target object necessary as compared to camera systems



LZR®-WIDESCAN

MOTION, PRESENCE & SAFETY SENSOR FOR INDUSTRIAL DOORS

- Utilize mobile app to easily configure sensor settings (available on the Apple App Store & Google Play Store)
- Virtual pull-cord function can differentiate between pedestrian and vehicle traffic and can provide pulse-on-stop activation
- Two visible LASER alignment spots ensure accurate pattern placement



LZR®-S600

LASER SCANNER FOR BUILDING AUTOMATION AND SECURITY

- Maximum detection range of 82 x 82 feet
- High immunity to environmental interferences
- External entrapment protection device capable of monitoring with interfaces building management systems
- Ability to ignore dynamic ground conditions and extreme weather



LZR®-I30

LASER SCANNER FOR INDUSTRIAL AUTOMATION

- Four curtains of detection capable of 30 x 30 feet
- Detects objects as small as 2 inches at 30 feet away, depending on application
- Ability to ignore dynamic ground conditions and extreme weather



LZR®-H100

LASER SCANNER FOR GATE & BARRIER APPLICATIONS

- Two relays allow for activation via motion or presence
- Time-of-Flight presence-based opto-electronic sensor ensures accurate and immediate detection
- Ability to detect vehicle trajectory during approach and departure

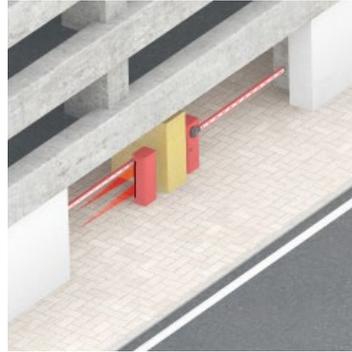
INFRARED SENSORS



IS40P

PRESENCE SENSOR IDEAL WITH VIRTUAL LOOP FUNCTIONALITY

- Nine unique infrared patterns capable of highly flexible presence detection in any industrial environment
- Six modes of detection filtering are available for microwave immunity, as well as pedestrian and parallel traffic rejection
- Adjustable infrared immunity modes mitigate environmental disturbances such as subtle door vibrations, light, sun, rain and snow

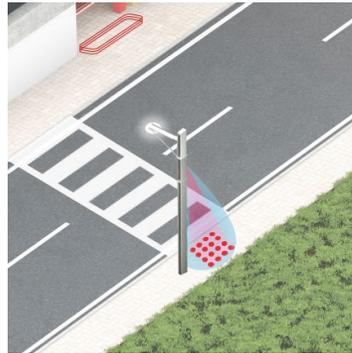
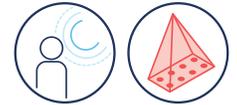


SUPERSCAN-T INDUSTRIAL

ACTIVE INFRARED PRESENCE SENSOR

- Housing available up to 96 inches; can be field-cut to desired door width
- Detection zone of 24 to 96 inches
- Can be set to background analysis mode to reduce the change of false detection from faulty environmental situations
- Capable of external monitoring

DUAL TECHNOLOGY SENSORS



IS40 / XL

MOTION & PRESENCE SENSOR FAMILY FOR INDUSTRIAL DOORS

- Bidirectional, unidirectional approach and unidirectional depart microwave detection options
- Six modes of detection filtering are available for microwave immunity, as well as pedestrian and parallel traffic rejection
- Adjustable infrared immunity modes mitigate environmental disturbances such as subtle door vibrations, light, sun, rain and snow

ACCESSORIES



GATELOCKS

- Weather-resistant, stainless steel housing
- Available in front or side mount with a 1200 lb holding force
- Built-in remote lock status sensor with an output relay



ACCESS CONTROL

- Universal IP66 Rated Keypad
- KEYSWITCHES



INSTALLATION ACCESSORIES

- UL Listed Power Supplies
- L & Z Brackets
- Industrial Extension Brackets
- BEA Universal Remote Control

RADIO CONTROLS



900 MHZ SERIES

WIRELESS TRANSMITTERS AND RECEIVER

- Connects up to 500 feet (open-air transmission)
- DIP switch function settings and push button learn modes
- 1, 2, 3 and 4 button hand-held transmitters, plus an in-wall transmitter
- IP65 rated handheld transmitters available
- BEA also offers 433 MHz & 300 MHz frequencies

MODULES



MATRIX LOOP DETECTORS

UL LISTED LOOP DETECTORS

- Available in operating powers of 110 to 120 VAC and 12 to 24 VAC / VDC
- Automatic sensitivity boost
- Settings are adjusted via two easy-to-use potentiometers
- Pulse-on-entry and pulse-on-exit presence detection



BR3-X

PROGRAMMABLE 3-RELAY LOGIC MODULES

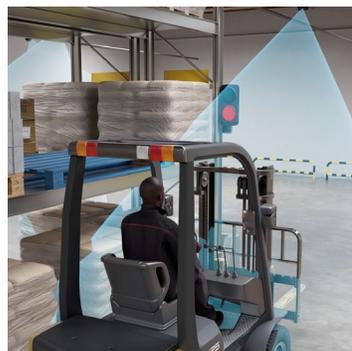
- 13 Function universal modules for a variety of application needs, such as time delay, 3-relay sequencing and more

BR2-900

2-RELAY LOGIC MODULE + 900 MHZ

- 2-relay logic module with built-in 900 MHz wireless technology and day / night mode functionality

WARNING INDICATORS



LED SIGNAL LIGHTS

RUGGED, COST-EFFECTIVE SIGNALS FOR WARNING INDICATION SYSTEMS

- Single light model rated IP67; double light model rated IP65
- Intense levels of light output for outdoor applications
- Controlled field of view for signage and narrow lane use
- One and two indicator models available



KEEP IN TOUCH

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