

LZR®-H100

LASER SCANNER FOR GATE AND BARRIER APPLICATIONS



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TECHNOLOGY

CERTIFICATIONS









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DESCRIPTION

BEA's **LZR-H100** is a LASER-based Time-of-Flight sensor designed for gate and barrier applications.

This solution provides four LASER-based curtains, offering a three-dimensional detection zone for accurate object detection. Its detection curtains are highly configurable and can be set up for activation and presence detection in vehicle-sensing applications.

The **LZR-H100** is an effective alternative to induction loops and is housed in an IP65-rated enclosure, further ensuring its performance in outdoor environments.





Dual-Relay Activation

Two relays allow for activation via motion or presence

Effective Alternative To Loop Detectors

Ideal for applications where cutting ground for loops is prohibited, impossible, or expensive

Reliable And Constant Detection

Time-of-Flight, presence-based, opto-electronic sensor ensures accurate and immediate detection

Trajectory Detection

Ability to detect vehicle trajectory during approach and departure

Pedestrian-Traffic Rejection

Ability to detect or ignore pedestrian traffic

Large Detection Field

Maximum detection field of 32 ft \times 32 ft (9 $\frac{3}{4}$ m \times 9 $\frac{3}{4}$ m)

Ease Of Installation

Teach-in setup via walk path or remote control configuration

APPLICATIONS







Pedestrian Presence Detection



Gate & Barrier Activation

TECHNICAL CDECIEICATIONS

TECHNICAL SPECIFICATIONS	
Technology	LASER scanner, Time-of-Flight measurement
Detection Mode	Motion and presence
Max. Detection Range	32' × 32' (9 ¾ m)
Remission Factor	> 2%
Angular Resolution	0.3516°
Emission Characteristics	
IR LASER	Wavelength 905 nm; max. output pulse power 0.10 mW (CLASS 1)
Red Visible LASER	Wavelength 635 nm; max. output CW power 3 mW (CLASS 2R)
Supply Voltage	10 – 35 VDC @ sensor terminal
Peak Current at Power-On	1.8 A (max. 80 ms @ 35 V)
Power Consumption	< 5 W
Response Time	
Motion Detection	typ. 200 ms (adjustable)
Presence Detection	typ. 20 ms (max. 80 ms)

Output 2 electronic relays (galvanic isolated – polarity free)

Max. Switching Voltage 35 VDC / 24 VAC Max. Switching Current 80 mA (resistive) Switching Time $t_{ON} = 5 \text{ ms}$; $t_{OFF} = 5 \text{ ms}$ **Output Resistance** typ 30 Ω Voltage Drop on Output < 0.7 V @ 20 mA

LED Signal 1 blue LED: Power-on 1 orange LED: Error status

2 bi-colored LEDS: Detection / Output Status (green = no detection, red = detection)

Dimensions	$3.5\%"$ (W) $\times 2.3\%"$ (H) $\times 5"$ (D) sensor base: $+.1/2"$
Cable Length	33'
Material	PC / ASA
Color	Black
Rotation Angle on Bracket	±5° (lockable)
Tilt Angle on Bracket	±3°
Degree of Protection	NEMA 4 / IP65
Temperature Range Powered	-22 – 140 °F (-30 – 60 °C)

14 – 140 °F (-10 – 60 °C) Unpowered 0 – 95% non-condensing Humidity **Vibrations**

< 2 G **Pollution on Front Screens** Max. 30%; homogenous

> 2006 / 95 / EC: LVD; 2004 / 108 / EC: EMC; IEC 60825-1:2007; IEC 61000-6-2:2005; 2002 / 95 / EC: RoHS; IEC 60529:2001; IEC 60950-1:2005; IEC 61000-6-3:2006

PRODUCT SERIES



101 7RH100 LZR-H100 sensor



101 RA LZR mounting bracket



101 HR LZR housing bracket

ACCESSORIES



10REMOTE BEA universal remote control



10PSMDR2024 100 - 240 VAC 24 VDC power supply



10PSST242 242VDC 2A Plug-in Power supply



RELATED PRODUCTS



10GL1200R 1200 lb / Front mount for sliding gate



10GL1200SR 1200 lb / Side mount for swinging door / gate



10LZBRGATE1200 L & Z Mounting

bracket



10BR3X BR3-X logic module





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