

# LZR®-FLATSCAN SW

STAND-ALONE, DOOR MOUNTED SAFETY SENSOR FOR SWING DOORS



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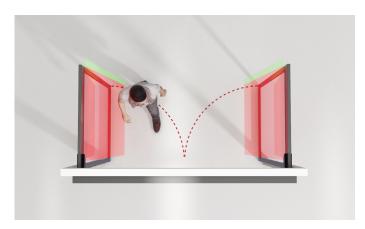
# **DESCRIPTION**

BEA's LZR®-FLATSCAN SW is a LASER-based Time-of-Flight presence sensor for use as a stand-alone safety sensor on automatic pedestrian swing doors. This solution can also be used as a reactivation sensor on the approach side of low energy doors.

This superior technology generates 170 detection points across a single curtain, which allows **LZR®-FLATSCAN SW** to cover the entire face of a single door leaf including the hinge area.

Finger Detection Technology™ utilizes 100 detection points within the hinge area of the door, protecting hands and fingers while the door is in motion.

The **LZR®-FLATSCAN SW** is capable of exceeding the 156.10 section 8.2.2.3 standard for detection area and meets section 8.1.4 for monitoring.





# **Leading Edge Safety**

Leading edge safety extends the detection area beyond the leading edge of the door for enhanced safety

# Hand Gesture Setup™

Easy door width programming using Hand Gesture Setup  $^{\text{TM}}$  reduces configuration time

### **UL10B/C Listed**

Fire rated for up to one hour

# **Reduced Components**

Hub-less system offers fewer components for easier setup and installation

# **Reduced Uncovered Zone**

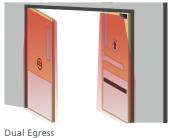
LASER technology provides a reduced uncovered zone of down to 3/4 inch

# **Background Independence**

LASER technology ensures independence of all types of flooring (pedi-mats, carpet, reflective flooring, wet surfaces, etc.) and the surrounding environment of the door (guiderails, walls, weather)

Low Energy







Single Swing

# **TECHNICAL SPECIFICATIONS**

Technology	LASER scanner, Time-of-Flight measurement
Detection Mode	Presence
Max. Detection Range	13' (diagonal) with reflectivity of 2%
	(e.g. at (W) $\times$ 5' > max. (H) $\times$ 12'),
	see Page 15 of Users Guide
Detection Area	
Door Leaf Safety	90°
Pinch Zone Safety	16°
Angular Resolution	
Door Leaf Safety	1.3°
Pinch Zone Safety	0.2°
Typ. Min. Object Size	
Door Leaf Safety	4" @ 13' (in proportion to object distance, DIP 2 = ON)
Pinch Zone Safety	3/4" @ 13' (in proportion to object distance, DIP 2 = ON
Emission Characteristics	Wavelength 905 nm;
IR LASER	max. output pulse power 25 W; Class 1
Supply Voltage	12 – 24 VDC ±15% *
Power Consumption	≤ 2 W
Response Time	
Door Leaf Safety	max. 50 ms
Pinch Zone Safety	max. 90 ms
Test Input	30 VDC (max. switching voltage) low < 1 V high > 10 V (voltage threshold)
Output	2 electronic relays (galvanic isolation - polarity free
Max. Switching Voltage	42 VAC / VDC
Max. Switching Current	100 mA
LED Signals	
Red	Swing side detection
Green	Approach side detection
Yellow	Error
Dimensions	5 ½" (W) × 3 ⅓" (H) x 1" (D)
	(mounting bracket adds ¼")
Material / Color	PC / ASA / black (white), or silver
Tilt Angles	2 – 10° (without mounting bracket)
Degree of Protection	IP54 (EN 60529)
Temperature Range	-22 – 140 °F (if powered)
Humidity	0 – 95% non-condensing
Vibrations	< 2 G
Min. Door Leaf Speed	2°/s
Compliance	ISO 13849-1 PI "d"/ CAT2; IEC 60825-1; IEC 60950-1 IEC 61000-6-2; IEC 61000-6-3; IEC 62061 SIL 2; UL 10B/C Fire-Rated 1 hour (file #R39071) - black material only

<sup>\*</sup> This sensor is powered by DC voltage only. If only VAC power is available, a 12V transformer paired with a rectifier must be used. Do not use a 24V transformer and rectifier as this will cause damage to the product.

# **PRODUCT SERIES**









NOTE: Kits and replacement sensors are available in black, white, or silver.

10LZRFLATSCAN-LB	Left sensor (black)
10LZRFLATSCAN-LELB	Low energy safety system for left door mount (black)
10LZRFLATSCAN-LELS	Low energy safety system for left door mount (silver)
10LZRFLATSCAN-LELW	Low energy safety system for left door mount (white)
10LZRFLATSCAN-LERB	Low energy safety system for right door mount (black)
10LZRFLATSCAN-LERS	Low energy safety system for right door mount (silver)
10LZRFLATSCAN-LERW	Low energy safety system for right door mount (white)
10LZRFLATSCAN-LS	Left sensor (silver)
10LZRFLATSCAN-LW	Left sensor (white)
10LZRFLATSCAN-RB	Right sensor (black)
10LZRFLATSCAN-RS	Right sensor (silver)
10LZRFLATSCAN-RW	Right sensor (white)
10LZRFLATSCAN-SWB	Full energy swing door safety system (black)
10LZRFLATSCAN-SWBU	Full energy swing door safety system + power supply (black)
10LZRFLATSCAN-SWS	Full energy swing door safety system (silver)
10LZRFLATSCAN-SWW	Full energy swing door safety system (white)
10LZRFLATSCANGDA	Glass door accessory
20.5433	Control harness
35.0213	Replacement cover (black, left)
35.0214	Replacement cover (black, right)
35.0220	Replacement cover (white, left)
35.0221	Replacement cover (white, right)
35.0242	Replacement cover (silver, left)
35.0243	Replacement cover (silver, right)
35.1329	Primary / secondary harness
70.5745	Sentrex retrofit accessory
70.5751	Spacer (white)
70.5752	Spacer (silver)
70.5753	Spacer (black)

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