# LZR®-P110

# SAFETY SENSOR FOR AUTOMATIC DOORS

Commercial sheet



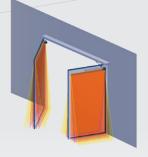
## THE PREMIUM SAFETY SOLUTION

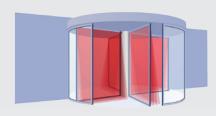
## **DESCRIPTION**

The Laser Scanner LZR®-P110 is a safety solution for sliding doors and revolving doors designed in conformity with the DIN 18650 and EN 16005 standards.

COMPLIANT WITH EN 16005/DIN 18650







Sliding doors

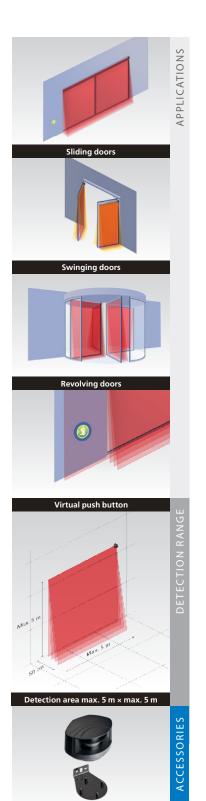
Swinging doors

Revolving doors

## FEATURES

- Maximum dimensions: 5 m x 5 m
- Background reflectivity independent thanks to time-of-flight measurement.
- Free positioning of two push-buttons to activate the door opening.
- Three-dimensional safety on the door threshold and close to the closing area with 4 high-resolution laser curtains (274 measurements per 66 ms at angles of 0°, 2°, 4°, 6°).
- Best outdoor operation thanks to the integrated heating system and the rain and snow filter.
- Bi-functional usability thanks to flexible and easy-to-use signal outputs (e.g. slow-mode and stop-mode for revolving doors, virtual push-buttons, and safety sensors for sliding doors)





#### **APPLICATIONS**

- Safety of the main closing edge of sliding doors
- Virtual push-buttons for sliding doors
- Secure slow-mode and stop-mode for sliding and revolving doors to prevent dangerous situations such as 'doors closing on a person'

#### EASE OF INSTALLATION

- 3 visible laser points to align the sensor
- Pre-programmed detection field
- Universal BEA remote control to set parameters

#### TECHNICAL SPECIFICATIONS

Technology	Laser scanner, time-of-flight measurement
Detection mode	Presence
Max. detection range	5.0 m × 5.0 m
Uncovered zone	5 - 25 cm (adjustable)
Remission factor	> 2 %
Angular resolution	0,3516 °
Min. detected object size (typ.)	2.1 cm @ 3 m ; 3.5 cm @ 5 m (in proportion to object distance)
Testbody	$700 \text{ mm} \times 300 \text{ mm} \times 200 \text{ mm}$ (Testbody CA according to EN16005/DIN18650)
<b>Emission characteristics</b> IR Laser Red visible Laser	Wavelenght 905nm; max. output pulse power 75W (Class 1) Wavelenght 650nm; max. output CW power 3mW (Class 3R)
Supply voltage	10-35 V DC @ sensor side
Power consumption	< 5 W
Peak current at power-on	1.8 A (max. 80 ms @ 35 V)
Response time	typ 20 ms; max. 80 ms (+ output activation delay)
Output Max. switching voltage Max. switching current	2 electronic relays (galvanic isolated - polarity free) 35 V DC / 24 V AC 80 mA (resistiv)
Input Max. contact voltage Voltage threshold	2 optocouplers (galvanic isolated - polarity free) 30 V DC (over-voltage protected) Log. H: >8 V DC; Log. L: <3 V DC
Dimensions	125 mm (D) × 93 mm (W) × 70 mm (H) (Montagesockel + 14 mm)
Material	PC/ASA
Colour	Black or white
Rotation angles on bracket	-5 ° to +5 ° (lockable)
Tilt angles on bracket	-3 ° to +3 °
Protection degree	IP65
Temperature range	-30°C to $+60$ °C if powered; -10°C to $+60$ °C unpowered
Humidity	0-95% non-condensing
Vibrations	< 2 G
Expected lifetime	20 years
Nom conformity	2006/95/EC: LVD; 2002/95/EC: RoHS; 2004/108/EC: EMC; 2006/42/EC: MD; EN 12978:2009; EN ISO 13849-1:2008 CAT2, PI "d"; EN 60529:2001; IEC 60825-1:2007; EN 60950-1:2005; EN 61000-6-2:2005; EN 61000-6-3:2006; IEC 61496-1:2009; EN 61496-3:2008 ESPE Type 2; EN 62061:2005 SIL 2; EN 16005:2012 Chapter 4.6.8; DIN 18650-1:2010 Chapter 5.7.4; BS 7036-1:1996 Chapter 8.1

Specifications are subject to change without prior notice.

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Mounting accessory: LBA

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