

# LZR®-FLATSCAN

## SAFETY SENSOR FOR SWING DOORS

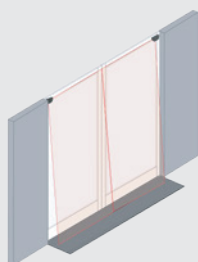
Commercial sheet



### ▶ LASER TECHNOLOGY FOR YOUR DOOR

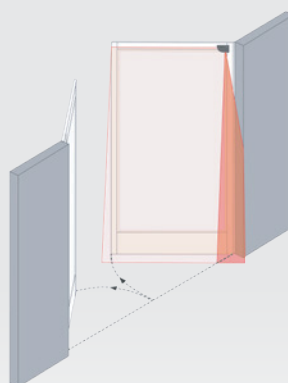
#### DESCRIPTION

The **LZR®-FLATSCAN** uses laser technology (time of flight measurement) for swing doors. It generates 70 or 170 measurement points (depending on the product version) to provide complete protection for the user, and is easy to install. Just one module per door side is enough to cover one complete door wing, regardless of its size.



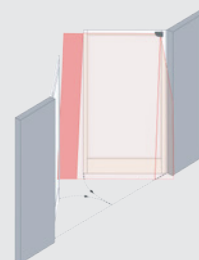
#### ▶ INDEPENDENT OF FLOORING AND SURROUNDINGS

Laser technology guarantees independence in terms of the type of flooring (wire mesh, absorbent carpet, reflective flooring, slippery surface, etc.) and the direct surroundings of the door (handrail, walls, radiators, dustbins, etc.).



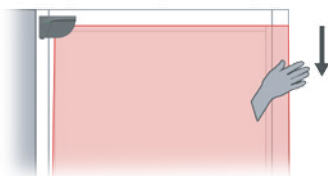
#### ▶ HINGE AREAS

The **LZR®-FLATSCAN 170** offers a protection of 100 additional points, exclusively dedicated to detecting small objects in the door hinges.



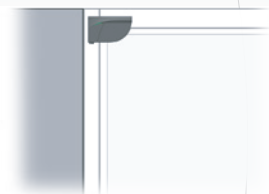
#### ▶ EDGES ARE SAFE

When the door is closing, the **LZR®-FLATSCAN 170** extends its coverage beyond the door edges, for increased comfort.



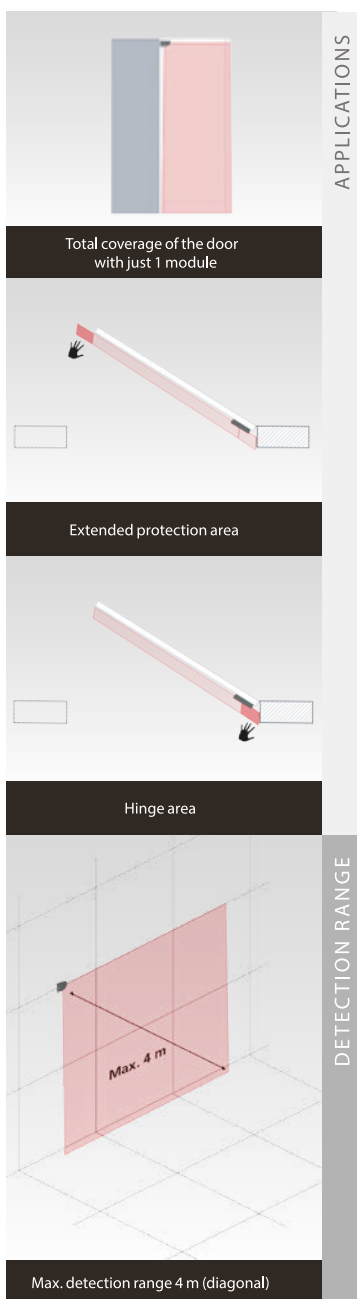
#### ▶ FAST, INTUITIVE INSTALLATION

The size of the sensor area is defined by hand movement. Profiles do not have to be cut anymore to fit the doorframe.



#### ▶ COMPACT IN SIZE

Thanks to its compact design, the **LZR®-FLATSCAN** (8 cm × 14,2 cm) can be used on all door types and facilitates the logistics.



## APPLICATIONS

- The sensor can be installed on the door wing in order to move with the door or fixed on the door frame. The sensor can be used for safety of swing doors, revolving doors, folding doors, pivoting doors...

## INSTALLATION

- Just one module is enough to cover the whole door, regardless of its size.
- Master-Slave operator compatible with 4SAFE.
- The mechanical angle can be adjusted from 2° to 10° and even further thanks to accessories.
- Specific adjustable settings thanks to 4 DIP-switches.
- Double automatic teach-in: direct surroundings of the door and the type of floor.
- 2 covers available for installation on the left or right.
- Different colours available (aluminium/black/white). The cover can be fully painted.

## VERSIONS

- LZR<sup>®</sup> -FLATSCAN 70** : Laser sensor for safety of swing doors and revolving doors.
- LZR<sup>®</sup> -FLATSCAN 170** : Laser sensor for safety of swing doors with a protection setting on the hinge and an extended area setting for securing the edge of the door.

## TECHNICAL SPECIFICATIONS

Technology	LASER scanner, time-of-flight measurement
Detection mode	Presence
Max. detection range	4 m (diagonal) with reflectivity of 5% (i.e. : at W = 1.5m -> max. H = 3,7 m)
Opening angle	Door wing protection : 90° / Hinge area* : 20°
Angular resolution	Door wing protection : 1,3°/ Hinge area* : 0,2°
Typ. min. object size	
Door wing protection	10 cm @ 4m (in proportion to object distance)
Hinge area*	2 cm @ 4m (in proportion to object distance)
Testbody	700 mm × 300 mm × 200 mm (testbody A according to EN 16005 & DIN 18650)
Emission characteristics	
IR LASER	Wavelength 905 nm; max. output pulse power 25 W; Class 1
Supply voltage	12-24V DC ± 15%
Power consumption	≤ 2 W
Response time	Door wing protection : max. 30 ms / Hinge area* : max. 60 ms
Output	2 electronic relays ( galvanic isolation - polarity free )
Max. switching voltage	42V AC/DC
Max. switching current	100 mA
LED-signals	1 bi-coloured LED : detection/output status
Dimensions	142 mm (L) × 85 mm (D) × 23 mm (H) ( mounting bracket + 7 mm )
Material - Colour	PC/ASA - Black - Aluminium - White
Tilt angles	+2° à +10° (without mounting bracket)
Protection degree	IP54
Temperature range	-30°C to +60°C if powered
Humidity	0-95 % non-condensing
Vibrations	< 2 G
Norm 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 PL "d"/ CAT2 ; 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 ; DIN 18650-1: 2010 Chapter 5.7.4 (testbody A) ; EN 16005:2012 Chapter 4.6.8 (testbody A)

Specifications are subject to change without prior notice.

\*Only LZR<sup>®</sup> -FLATSCAN 170

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