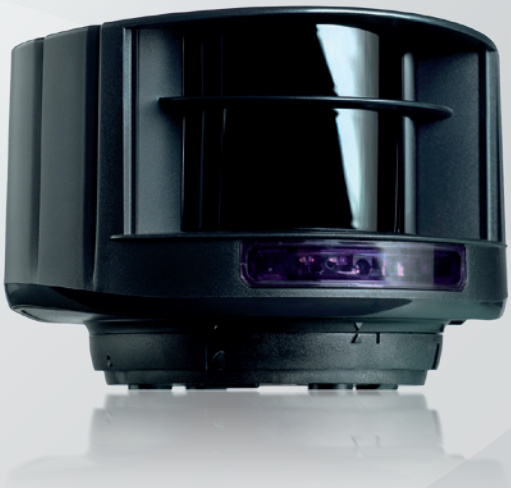
LZR®- RS300

SAFETY SENSOR
FOR EXTERNAL RAILWAY DOORS

Commercial sheet



EN

THE PREMIUM SAFETY SOLUTION

DESCRIPTION

The **LZR®-RS300** is a LASER-based safety solution fully covering the external railway door in 2 or 3 dimensions.

It is a perfect complement to contact edges and a convenient alternative to light grids and standard infrared sensors.

Very compact LASER safety sensor with easy plug, teach and go installation.

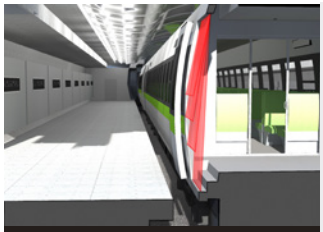
PERFORMANCE

- Detection range: up to 5 m × 5 m to cover applications with single or double leaf doors.
- Compliant to EN 62061 SIL2.
- Compliant with railway norms.
- Detection capacity guaranteed up to 2G.
- Convenient alternative to light grids and infrared solutions. In combination with contact edges, the **LZR®-RS300** offers the highest safety degree on every type of external doors.
- Capacity to detect objects in mm-range (white walking stick, dog leash, etc.).
- The **LZR®-RS300** produces one plane to cover flat doors. Up to 3 additional planes can be activated to offer a volumetric coverage on curved doors.
- Time of flight technology combined with a dedicated software guarantees an intrinsic immunity to environmental disturbances: sunlight, rain, snow, etc.
- Integrated heating system.

LZR®-RS300

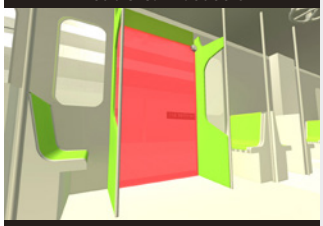
SENSORIO
sensors and more

APPLICATIONS

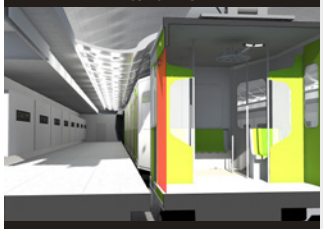


Curved doors

Double leaf-flat doors



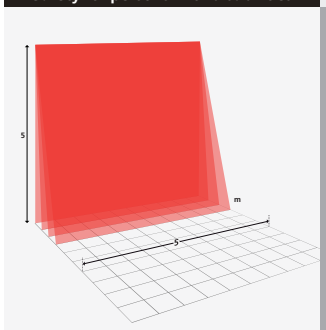
Interior view



Flat doors

Safety for persons with disabilities

DETECTION AREA



5 m @ 2 % remission factor

APPLICATIONS

Safety of external doors on railway vehicles:

- Single leaf or double leaf doors.
- Flat or curved doors.

EASE OF INSTALLATION

- For easy installation, 3 visible red LASER beams can be activated to align the detection planes and adjust the tilt and rotation angles.
- Teach-in function: self learning of the surrounding environment with automatic adjustment of detection surfaces.
- Remote control to easily set the adjustable parameters.

TECHNICAL SPECIFICATIONS

Technology	LASER scanner, time-of-flight measurement
Detection mode	Presence
Max. detection range @ 2% remission factor	5 m
Remission factor	> 2 %
Size of target	Capacity to detect objects in mm-range
Emission characteristics IR LASER	Wavelength 905 nm; max. output pulse power 75 W ; Class 1
Supply voltage (nominal)	24V DC acc. to EN 50155 (10-35 V DC @ sensor terminal)
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 Max. switching voltage Max. switching current	2 electronic relays (galvanic isolation - polarity free) 35 V DC / 24 V AC 80 mA (resistive)
Monitoring input Max. contact voltage Voltage threshold	1 optocoupler (galvanic isolated - polarity free) 30 V DC (over-voltage protected) Log. H: > 8 V DC ; Log. L: < 3 V DC
LED signals	1 blue LED : power-on status 1 orange LED : error status 2 bicoloured LEDs : detection/output status (green LED: no detection; red LED: detection)
Dimensions	125 mm (L) × 93 mm (D) × 70 mm (H) (mounting bracket + 14 mm)
Material	PC/ASA (colour: black)
Mounting angles on bracket	-45°, 0°, 45°
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 powered ; -10°C to +60°C unpowered
Humidity	0-95 % non-condensing
Vibrations	< 2 G
Pollution on front screens	max. 30 %; homogenous
Expected lifetime	designed for a lifetime of min. 8 years
Norm conformity	2006/95/EC: LVD; 2004/108/EC: EMC; 2002/95/EC: RoHS; EN 60825-1; EN 60950-1; EN 60529; IEC60825; EN 61000-6-2: EMC - Industrial level; EN 61000-6-3: EMC - Commercial Level ; EN 62061:2005 SIL2; EN 954-1 Cat. 2; EN ISO 13849-1 PL "C" - Cat. 2, EN 61496-3 type II; EN 50155

Specifications are subject to change without prior notice.

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A HALMA COMPANY

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