

LZR[®] - RS300

SAFETY SENSOR FOR EXTERNAL RAILWAY DOORS

Commercial sheet



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.

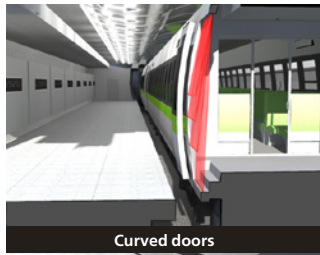


PERFORMANCE

- 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.



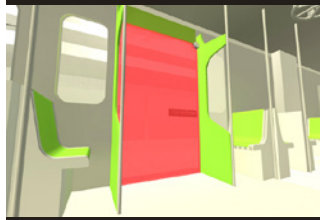
LZR[®]-RS300 ■



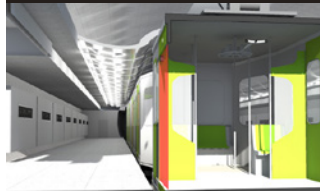
Curved doors



Double leaf-flat doors



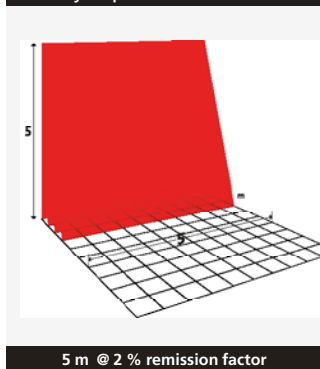
Interior view



Flat doors



Safety for persons with disabilities



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	EMC 2014/30/EU; LVD 2014/35/EU; MD 2006/42/EC; ROHS 2 2011/65/EU; EN 60825-1; EN 60950-1; EN 60529; IEC60825; EN 61000-6-2; EN 61000-6-3 ; EN 62061 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.

DISCLAIMER This document as well as all other enclosed documents (quotation / specification / other) are provided «as is» without warranties of any kind, either expressed or implied, including but not limited to the implied warranties of merchantability, fitness for a particular purpose, or non-infringement. / Information is supplied upon the condition that the persons receiving it will make their own determination as to its suitability for their purposes prior to use. In no event will BEA be responsible for damages of any nature whatsoever resulting from the use of or reliance upon information from this document or the products to which the information refers. / BEA has the right without liability to change descriptions and specifications at any time. / Prices, shipping and availability are subject to change without prior notice.

