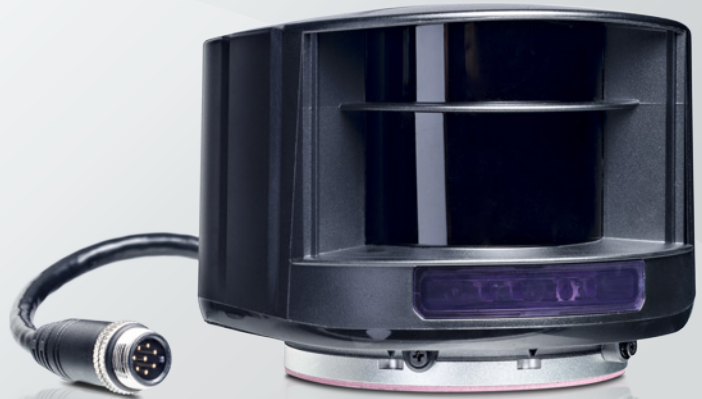


LZR[®] - U9xx

FAMILY OF LASER MEASUREMENT DEVICE

Commercial sheet



VERY COMPACT RAW DATA LASER SCANNER

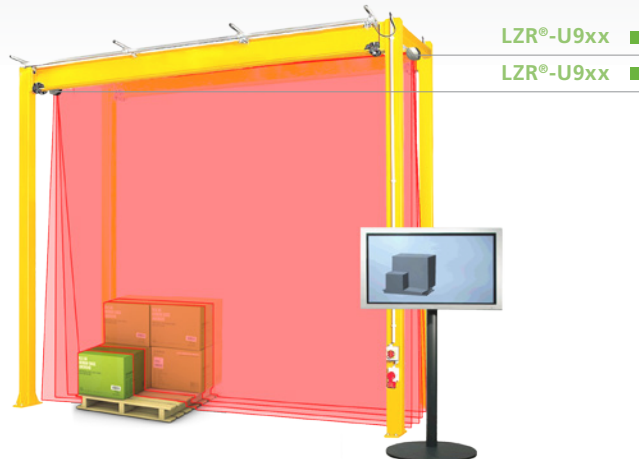
DESCRIPTION

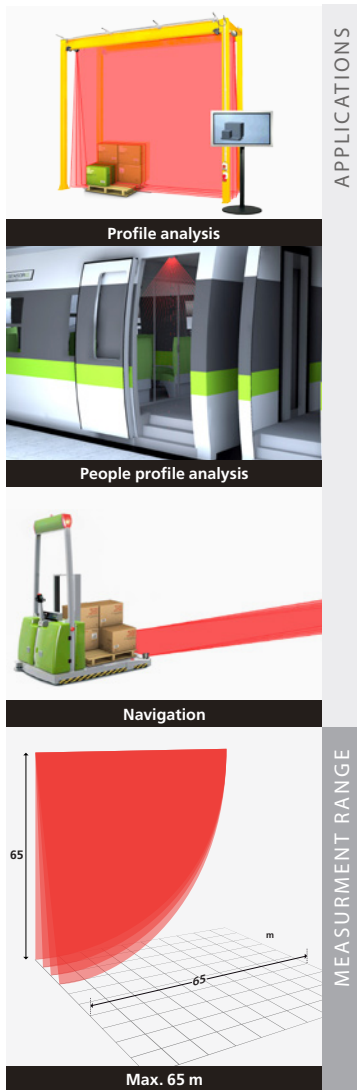
The **LZR[®]-U9xx** are LASER-based measurement devices measuring distances on up to 4 planes. The **LZR[®]-U9xx** can be installed to scan in any direction. This family is designed to provide the user with the highest degree of flexibility. It communicates the raw measurement data for further calculation or control tasks. Very compact and competitive LASER scanner.



PERFORMANCE

- Non-contact optical measurement.
- Background or substrate has almost no effect on measurements.
- Measurement range : up to 65 m.
- Field of view: up to 96°.
- Standard RS485 bus communication (unidirectional or bidirectional).
- Low power consumption (< 5 W), thus adapted to autonomous systems.
- No external illumination of target object necessary compared to camera systems.
- Integrated heating system.





APPLICATIONS

MEASUREMENT RANGE

APPLICATIONS

- Profile detection / Profile analysis / Traffic control
- Navigation of Automated Guided Vehicles
- Navigation monitoring
- Object measurement
- Position measurement

EASE OF INSTALLATION

- Connector M12, 8 Poles
- Standard RS485 bus communication

VERSIONS

- LZR®-U910: sensor with unidirectional bus communication, 15 Hz system
- LZR®-U920: sensor with bidirectional bus communication, 15 Hz system
- LZR®-U921: sensor with bidirectional bus communication, 60 Hz system

TECHNICAL SPECIFICATIONS

	LZR®-U910	LZR®-U920	LZR®-U921
Number of planes	4	4	1
Scanning frequency	15 Hz	15 Hz	60 Hz
Serial communication protocol	Unidirectional communication 460,8 kbit/sec	Bidirectional communication Configurable (Max. 921,6 kbit/sec)	Bidirectional communication Configurable (Max. 921,6 kbit/sec)
Technology	Laser scanner, time of flight measurement		
Measurement range	Max. 65 m / 10 m @ 2% remission factor / 30 m @ 10% remission factor		
Number of points/plane	Max. 274		
Angular resolution	Max. 0.3516°		
Angular coverage	Max. 96°		
Rotating speed	900 turns/min		
Remission factor	> 2 %		
Emission characteristics	IR LASER Wavelength 905 nm; max. output pulse power 75 W (CLASS 1)		
Power supply	10 - 35 V DC @ sensor side		
Serial communication	see application note LZR®-U910/U920/U921 Protocol (available for download on our website)		
Type	Asynchronous		
Interface	RS 485		
Communication mode	Simplex (U910) or half-duplex (U920,U921)		
Transmission speed	460,8 kbit/sec (U910), configurable (U920,U921)		
Topology	Point to point		
Symbol coding	1 start bit, 1 stop bit, no parity bit		
File type	8 bits		
LED-signal	1 blue LED: power-on status; 1 orange LED: error status; 2 bi-coloured LEDs: function status		
Dimensions	125 mm (D) × 93 mm (W) × 76 mm (H)		
Material	PC/ASA ; colour: black		
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	Designed for a lifetime of min. 20 years		
Norm conformity	2006/95/EC: LVD; 2011/65/EU: RoHS 2; 2004/108/EC: EMC; EN 60529:2001; IEC 60825-1:2007 Laser Class 1&3R; EN 60950-1:2005; EN 61000-6-2:2005 EMC - Industrial level; EN 61000-6-3:2006 EMC - Commercial Level		

Specifications are subject to change without prior notice

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