



LZR®-U920 / U921

COMPACT RAW DATA LASER SCANNER



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click or scan

TECHNOLOGY



CERTIFICATIONS



DESCRIPTION

BEA's **LZR®-U920 / U921** are LASER-based measurement devices measuring distances on up to four planes. The **LZR®-U920 / U921** can be installed to scan in any direction.

This family of sensors is designed to provide the user with the highest degree of flexibility. It communicates the raw measurement data for further calculation or control tasks.

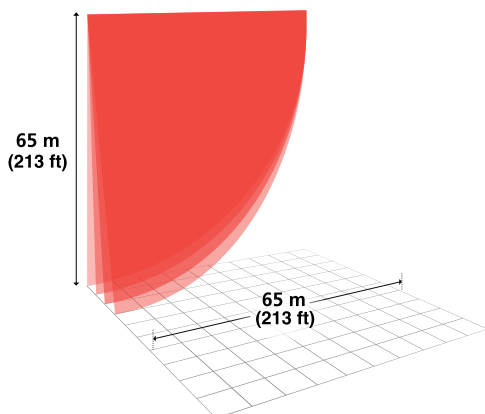


Background Independent

Background or substrate has limited effect on measurements

LASER-Based measurements

Measurement range: up to 65 m (213 ft)



Uni-Directional Or Bi-Directional

Standard RS485 bus communication (bi-directional)

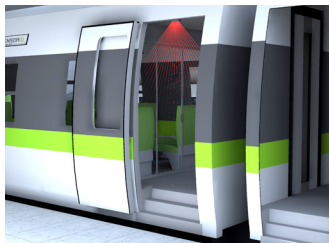
Superior Object Recognition

No external illumination of target object necessary as compared to camera systems

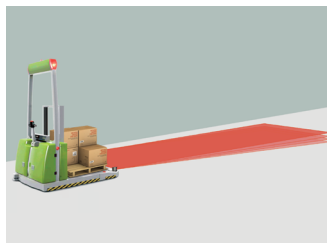
APPLICATIONS



Object Profile Analysis



Human Profile Analysis



Navigation



Mass Transit

TECHNICAL SPECIFICATIONS

Technology	LASER scanner, Time-of-Flight measurement
Measurement Range	Max. 65 m (213') / 10 m (30') @ 2% remission factor / 30 m (98') @ 10% remission factor
Number of Points / Plane	Max. 274
Number of Planes	
LZR®-U920	4
LZR®-U921	1
Angular Resolution	Max. 0.3516°
Angular Coverage	Max. 96°
Rotating Speed	900 turns / min
Scanning Frequency	
LZR®-U920	15 Hz
LZR®-U921	60 Hz
Serial Communication	
Type	Asynchronous
Interface	RS 485
Communication Mode	Half-duplex (U920,U921)
Data Transmission Speed	460800 bit / sec (max. 921600 bit / sec)
Topology	Point-to-point
Symbol Coding	1 start bit, 1 stop bit, no parity bit
File Type	8 bits
Remission Factor	> 2%
Emission Characteristics	
IR LASER	Wavelength 905 nm; output power 0.10 mW (CLASS 1)
Visible LASER	Wavelength 635 nm; output power 0.95 mW (CLASS 2)
Peak Current at Power-on	1.8 A (max. 80 ms @ 35 V)
Supply Voltage	10 – 35 VDC @ sensor side
Power Consumption	< 5 W
Cable Length	10'
LED-Signal	1 Blue LED: Power-on Status 1 Orange LED: Error Status 2 Bi-colored LEDs: Function Status
Dimensions	5" (W) x 2 3/4" (H) x 3 2/3" (D)
Material	PC / ASA
Color	Black
Degree of Protection	IP65
Temperature Range	-22 – 40 °F (-30 – 60 °C) if powered; 14 – 140 °F (-10 – 60 °C) if powered;
Humidity	0 – 95% non-condensing
Vibrations	< 2 G
Expected Lifetime	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

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PRODUCT SERIES



10LZR-U920

Bidirectional 4 curtain sensor



10LZR-U921

Bidirectional 1 curtain sensor