



LR-ZB100N  
Rectangular w/ cable Type, 100 mm



\*Please note that accessories depicted in the image are for illustrative purposes only and may not be included with the product.

Specifications

|                               |                       |                                                                                                                                                                                     |
|-------------------------------|-----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Model                         |                       | LR-ZB100N                                                                                                                                                                           |
| Type                          |                       | Distance based laser sensor                                                                                                                                                         |
| Appearance                    |                       | Rectangular                                                                                                                                                                         |
| Output                        |                       | NPN                                                                                                                                                                                 |
| Cable connection              |                       | 2 m cable                                                                                                                                                                           |
| Detectable distance           |                       | 35 to 100 mm 1.38" to 3.94" (650 to 0)*1                                                                                                                                            |
| Standard detectable deviation |                       | 35 to 50 mm 1.38" to 1.97": 1.5 mm 0.06"<br>50 to 100 mm 1.97" to 3.94": 3 mm 0.12"                                                                                                 |
| Display resolution            |                       | 2 (0.2 mm 0.008")                                                                                                                                                                   |
| Spot size                     |                       | Approx. 2 × 1 mm 0.08" × 0.04" at 100 mm 3.94"                                                                                                                                      |
| Response time                 |                       | 1.5 ms / 10 ms / 50 ms selectable                                                                                                                                                   |
| Light source                  | Type                  | Red laser (660 nm)                                                                                                                                                                  |
|                               | Laser class           | Class 1 laser product<br>(IEC60825-1, FDA (CDRH) Part1040.10*2)                                                                                                                     |
| Function                      | Indicator             | 3-digit 7-segment display (red),<br>output indicator (yellow),<br>DATUM indicator (orange),<br>1 spot indicator (green)                                                             |
|                               | Timer                 | OFF/ON delay/OFF delay/One-shot                                                                                                                                                     |
| Specifications                | Power voltage         | 10 to 30 VDC, including 10% ripple (P-P), Class 2 or LPS                                                                                                                            |
|                               | Power consumption     | 450 mW or less (18 mA or less at 24 V, 34 mA or less at 12 V)                                                                                                                       |
|                               | Control output        | NPN Open collector,<br>Applied voltage 30 VDC or less, Control current 100 mA or less,<br>Residual voltage 1.2 V or less at 10 mA or less, 2 V or less at 10 to 100 mA              |
|                               | Protection circuit    | Protection against reverse power connection, output overcurrent, output surge,<br>reverse output connection                                                                         |
|                               | Output operation      | Light-ON / Dark-ON selectable                                                                                                                                                       |
|                               | External input        | Input time calibration: 35 ms or more ON, 35 ms or more OFF<br>Laser emission stop: 2 ms or more ON, 20 ms or more OFF<br>Short-circuit current NPN: 1 mA or less/PNP: 2 mA or less |
| Environmental resistance      | Enclosure rating      | IP68 (IEC60529), IP69K (DIN40050-9), NEMA 4X, 6P, 13 (NEMA250),<br>ECOLAB*3, Diversey*3                                                                                             |
|                               | Insulation resistance | 20 MΩ or more (500 VDC)                                                                                                                                                             |
|                               | Ambient light         | Incandescent lamp: 4,000 lux or less<br>Sunlight: 8,000 lux or less*4                                                                                                               |
|                               | Ambient temperature   | -10 to +50 °C 14 to 122 °F (No freezing)                                                                                                                                            |
|                               | Storage temperature   | -25 to +75 °C -13 to 167 °F (No freezing)                                                                                                                                           |
|                               | Relative humidity     | 35 to 85 % RH (No condensation)                                                                                                                                                     |
|                               | Withstand voltage     | 1,000 VAC, 50/60 Hz, 1 min                                                                                                                                                          |

|                    |                      |                                                                                                           |
|--------------------|----------------------|-----------------------------------------------------------------------------------------------------------|
|                    | Vibration resistance | 10 to 55 Hz, Double amplitude 1.5 mm 0.06", 2 hours in each of the X, Y, and Z directions                 |
|                    | Shock resistance     | 1,000 m/s <sup>2</sup> , 6 times in each of the X, Y, and Z directions                                    |
| Material           |                      | Case: SUS316L, Display: PES, Lens cover: PMMA with scratch-resistant coating, Packing/Connector ring: FKM |
| Accompanying items |                      | Instruction Manual, Certification/Identification label (FDA)                                              |
| Weight             |                      | Approx. 110 g (Including cable)                                                                           |

\*1 Display readings can be used as a guide for the detecting distance. When the setting value is tuned, the readout shifts. When the value exceeds "-99", "-FF" is displayed.

\*2 The laser classification for FDA (CDRH) is implemented based on IEC60825-1 in accordance with the requirements of Laser Notice.

\*3 Have passed resistance tests with cleaning agents from multiple manufactures.

\*4 When the response time is 10 ms

Dimensions

\* Download CAD file or product manual for larger image/text and more detail.

LR-ZB100N/ZB100P/ZB250N/ZB250P

