



## LR-ZB250C3P

Rectangular w/ M8 connector Type, 250 mm



## SPECIFICATIONS

|                               |                       |                                                                                                                                                                        |
|-------------------------------|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Model                         |                       | LR-ZB250C3P <sup>*1</sup>                                                                                                                                              |
| Type                          |                       | Distance based laser sensor                                                                                                                                            |
| Appearance                    |                       | Rectangular                                                                                                                                                            |
| Output                        |                       | PNP                                                                                                                                                                    |
| Cable connection              |                       | M8 connector, 3-pin                                                                                                                                                    |
| Detectable distance           |                       | 35 to 250 mm 1.38" to 9.84" (215 to 0) <sup>*2</sup>                                                                                                                   |
| Standard detectable deviation |                       | 35 to 180 mm 1.38" to 7.09": 9 mm 0.35"<br>180 to 250 mm 7.09" to 9.84": 25 mm 0.98"                                                                                   |
| Display resolution            |                       | 1 to 3 (1 to 3 mm 0.04" to 0.12")                                                                                                                                      |
| Spot size                     |                       | Approx. 2.4 × 1.2 mm 0.09" × 0.05" at 250 mm 9.84"                                                                                                                     |
| 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 <sup>*3</sup> )                                                                                           |
| 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        | PNP 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, reverse output connection                                                               |
|                               | Output operation      | Light-ON / Dark-ON selectable                                                                                                                                          |
| Environmental resistance      | Enclosure rating      | IP68 (IEC60529), IP69K (DIN40050-9), NEMA 4X, 6P, 13 (NEMA250), ECOLAB <sup>*4</sup> , Diversy <sup>*4</sup>                                                           |
|                               | Insulation resistance | 20 MΩ or more (500 VDC)                                                                                                                                                |
|                               | Ambient light         | Incandescent lamp: 2,000 lux or less<br>Sunlight: 4,000 lux or less <sup>*5</sup>                                                                                      |
|                               | 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,<br>Packing/Connector ring: FKM                                                           |
| Accompanying items            |                       | Instruction Manual,<br>Certification/Identification label (FDA)                                                                                                        |
| Weight                        |                       | Approx. 55 g                                                                                                                                                           |

<sup>\*1</sup> M8 connector (3-pin) type does not include the external input function.<sup>\*2</sup> 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.<sup>\*3</sup> The laser classification for FDA (CDRH) is implemented based on IEC60825-1 in accordance with the requirements of Laser Notice No.50.<sup>\*4</sup> Have passed resistance tests with cleaning agents from multiple manufactures.<sup>\*5</sup> When the response time is 10 ms

## Dimensions

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

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