

LC-100



Digital laser sensor

Features

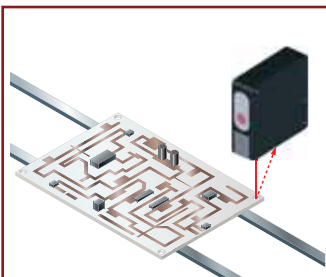
Multifunction optoelectronic sensors

The LC100 series with a standard 50×50×15mm compact housing, offers all the most advanced optic functions including safety class 1 laser emission. This series offers versions with cable or M12 connection that can be rotated for either straight or right-angle positions. All versions have NPN or PNP output and standard configuration conforming to the EN 60947-5-2 standard. 16 types of LC100 are available.

Typical Applications

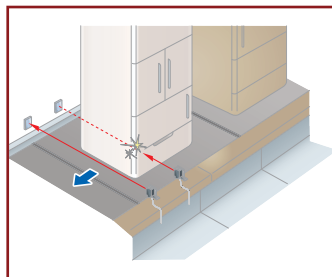
Positioning of printed circuit boards

Electronic industry



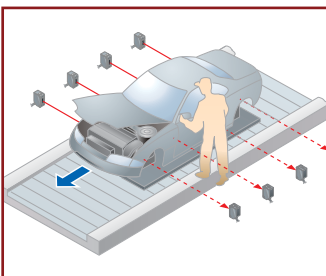
Detection of refrigerators

Packaging industry



Detection of automobiles on conveyers

Automotive industry



Available in 4 versions

Laser through-beam

- Visible class 1 laser red light emission (typ. 650nm)
- Operating distance up to 60m with highest excess gain
- Resolution better than 6mm at 0.5m and 10mm over 2m
- Very high switching frequency up to 1.5kHz
- Double NO-NC output with NPN or PNP version
- Text input
- Plastic housing with compact dimensions 50×50×15mm

Laser polarized retroreflective

- Visible class 1 laser red light emission (typ. 650nm)
- Operating distance up to 20m
- Resolution better than 10mm
- Trimmer setting for fine sensitivity adjustment
- Very high switching frequency up to 2kHz
- Double NO-NC output with NPN or PNP version
- Plastic housing with compact dimensions 50×50×15mm

Diffuse reflective

- Visible class 1 laser red light emission (typ. 650nm)
- Operating distance 0 to 60cm
- Resolution approx. 0.2mm at 15cm
- Trimmer setting for fine sensitivity adjustment
- Very high switching frequency up to 2kHz
- Double NO-NC output with NPN or PNP version
- Plastic housing with compact dimensions 50×50×15mm

Background suppression

- Visible class 1 laser red light emission (typ. 650nm)
- Operating distance 5 to 10cm
- Resolution approx. 0.5mm at 6cm
- Teach-in setting
- Double NO-NC output with NPN or PNP version
- External teach-in
- Plastic housing with compact dimensions 50×50×15mm

LC-100 Technical Specifications





| NPN-Output | LC-100-TL6000-A-P-[J] | LC-100-PL2000-A-P-[J] | LC-100-DL0060-A-P-[J] | LC-100-BL0010-A-P-[J] |
|----------------------------------|--|--------------------------|--------------------------|-----------------------------|
| PNP-Output | LC-100-TL6000-A-P-PN-[J] | LC-100-PL2000-A-P-PN-[J] | LC-100-DL0060-A-P-PN-[J] | LC-100-BL0010-A-P-PN-[J] |
| Sensor type | Thru-beam | Retroreflective | Diffuse reflective | Diffuse reflective with BGS |
| Maximum operation distance | 60m | 20m | 600mm | 100mm |
| Sensing range | 0 to 60m | 0.1 to 20m | 0 to 600mm | 50 to 100mm |
| Sensing object | Metal, black | | Paper, white | |
| | Ø 6mm | | 200 x 200mm | 100 x 100mm |
| Detectable target | Opaque | Opaque, translucent | Opaque, transparent | |
| Hysteresis | - | - | <1% | |
| Response time | Approx. 333µs | Approx. 250µs | | 500µs |
| Output | Max. 100mA | | | |
| Emitting element | Red semiconductor laser, 650nm (Class 1) | | | |
| Current consumption without load | Emitter: max. 35mA Receiver: max. 35mA | Max. 35mA | | Max. 60mA |
| Material | Enclosure: Plastic | | | |
| Protection | IP67 | | | |
| Dimensions (H×W×D) | Cable type: approx. 50×50×15mm Connector type: approx. 50×66×15mm | | | |
| Connection | Cable 2m or M12 connector | | | |
| Supply voltage | 10 to 30V DC | | | |
| Ambient temperature | Operation: -10 to +50°C, storage: -25 to +70°C | | | |
| Weight | Cable type: approx. 90g Connector type: approx. 40g | | | |

[PN] = PNP • [J] = M12 connector

*Reflector not included

Options

Cables

| UZZ81220 | UZZ81221 | UZZ81250 | UZZ81251 |
|---|---|---|---|
| 2m straight | 2m elbow | 5m straight | 5m elbow |
|  |  |  |  |

Mounting brackets

| LC1-ST60 | LC1-ST26 | LC10-ST62 |
|---|---|---|
|  |  |  |

Reflector

