

# E3Z-LT/LR/LL

CSM\_E3Z-LT\_LR\_LL\_DS\_E\_6\_8

## Compact and Reliable Laser Photoelectric Sensor



- Safety and reliability with laser class 1 (JIS and IEC).
- Product lineup includes models with distance setting without influence of color.
- Maximum ambient operating temperature of 55°C and water-proof construction in E3Z class.

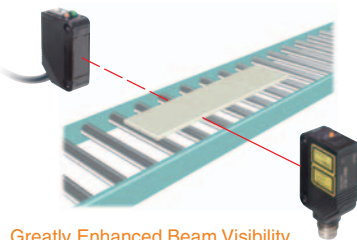


Be sure to read *Safety Precautions* on page 9.

For the most recent information on models that have been certified for safety standards, refer to your OMRON website.

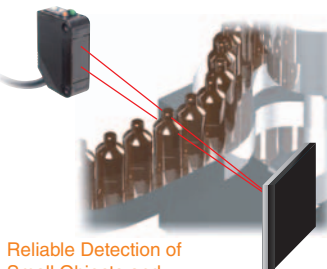
## Applications

Detect the sides of large tiles.



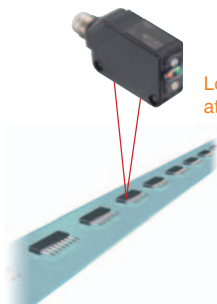
Greatly Enhanced Beam Visibility  
for Easier Optical Axis Adjustment of Sensors

Count bottles.



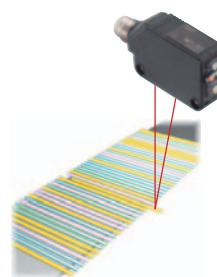
Reliable Detection of  
Small Objects and  
Narrow Gaps with the Small Spot

Detect chip components on tape.



Long-distance Sensing  
at 300 mm (White Paper)

Detect protruding straws.

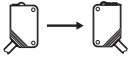
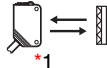
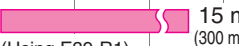
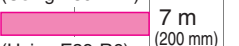
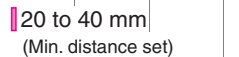
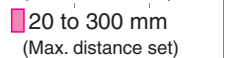
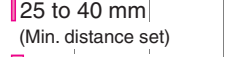
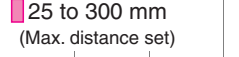


A Low Black/White Error for  
Applications with Mixed Colors

## Ordering Information

### Sensors (Refer to Dimensions on page 11.)

 Red light

| Sensing method                        | Appearance                                                                              | Connection method         | Response time | Sensing distance                                                                                                      | Model                                                                 |                                                                       |
|---------------------------------------|-----------------------------------------------------------------------------------------|---------------------------|---------------|-----------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------|-----------------------------------------------------------------------|
|                                       |                                                                                         |                           |               |                                                                                                                       | NPN output                                                            | PNP output                                                            |
| Through-beam<br>(Emitter + Receiver)  |        | Pre-wired<br>(2 m)        | 1 ms          |  60 m                                | <b>E3Z-LT61 2M</b><br>Emitter E3Z-LT61-L 2M<br>Receiver E3Z-LT61-D 2M | <b>E3Z-LT81 2M</b><br>Emitter E3Z-LT81-L 2M<br>Receiver E3Z-LT81-D 2M |
|                                       |                                                                                         | Connector<br>(M8, 4 pins) |               |                                                                                                                       | <b>E3Z-LT66</b><br>Emitter E3Z-LT66-L<br>Receiver E3Z-LT66-D          | <b>E3Z-LT86</b><br>Emitter E3Z-LT86-L<br>Receiver E3Z-LT86-D          |
| Retro-reflective with<br>MSR function | <br>*1 | Pre-wired<br>(2 m)        |               |  15 m<br>(300 mm)<br>(Using E39-R1)  | <b>E3Z-LR61 2M</b>                                                    | <b>E3Z-LR81 2M</b>                                                    |
|                                       |                                                                                         | Connector<br>(M8, 4 pins) |               |  7 m<br>(200 mm)<br>(Using E39-R12)  |                                                                       |                                                                       |
|                                       |                                                                                         |                           |               |  7 m<br>(200 mm)<br>(Using E39-R6)   | <b>E3Z-LR66</b>                                                       | <b>E3Z-LR86</b>                                                       |
| Distance-settable<br>(BGS Models)     |        | Pre-wired<br>(2 m)        | 0.5 ms        |  20 to 40 mm<br>(Min. distance set)  | <b>E3Z-LL61 2M</b>                                                    | <b>E3Z-LL81 2M</b>                                                    |
|                                       |                                                                                         | Connector<br>(M8, 4 pins) |               |  20 to 300 mm<br>(Max. distance set) | <b>E3Z-LL66</b>                                                       | <b>E3Z-LL86</b>                                                       |
|                                       |                                                                                         | Pre-wired<br>(2 m)        |               |  25 to 40 mm<br>(Min. distance set)  | <b>E3Z-LL63 2M</b>                                                    | <b>E3Z-LL83 2M</b>                                                    |
|                                       |                                                                                         | Connector<br>(M8, 4 pins) |               |  25 to 300 mm<br>(Max. distance set) | <b>E3Z-LL68</b>                                                       | <b>E3Z-LL88</b>                                                       |

\*1. The Reflector is sold separately. Select the Reflector model most suited to the application.

\*2. Values in parentheses indicate the minimum required distance between the Sensor and Reflector.

### Accessories

**Slits** (A Slit is not provided with a Through-beam Sensor. Order a Slit separately if required.) (Refer to Dimensions on page 14.)

| Slit width  | Sensing distance | Minimum detectable object<br>(reference value) | Model           | Contents                                                         |
|-------------|------------------|------------------------------------------------|-----------------|------------------------------------------------------------------|
| 0.5 mm dia. | 3 m              | 0.1 mm dia.                                    | <b>E39-S65A</b> | One set<br>(contains Slits for both the<br>Emitter and Receiver) |

**Reflectors** (A Reflector is required for each Retro-reflective Sensor. A Reflector is not provided with the Sensor. Be sure to order a Reflector.)  
(Refer to Dimensions on page 14.)

| Name      | Sensing distance |                 | Model          | Remarks                                                                                                                                                                                                                                         |
|-----------|------------------|-----------------|----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|           | Rated value      | Reference value |                |                                                                                                                                                                                                                                                 |
| Reflector | ---              | 15 m (300 mm)   | <b>E39-R1</b>  | <ul style="list-style-type: none"> <li>Retro-reflective models are not provided with Reflectors.</li> <li>Separate the Sensor and the Reflector by at least the distance given in parentheses.</li> <li>The MSR function is enabled.</li> </ul> |
|           | 7 m (200 mm)     | ---             | <b>E39-R12</b> |                                                                                                                                                                                                                                                 |
|           | ---              | 7 m (200 mm)    | <b>E39-R6</b>  |                                                                                                                                                                                                                                                 |

Note: If you use the Reflector at any distance other than the rated distance, make sure that the stability indicator lights properly when you install the Sensor.