### 1 Installation

#### 1-1 Dimensions

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>Unit</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Width</td>
<td>115.0mm</td>
<td>Width of the product case</td>
</tr>
<tr>
<td>Height</td>
<td>46.5mm</td>
<td>Height of the product case</td>
</tr>
<tr>
<td>Depth</td>
<td>75.2mm</td>
<td>Depth of the product case</td>
</tr>
</tbody>
</table>

#### 1-2 Mounting the Amplifier Unit

- **Mounting on DIN Track**
  1. Push the unit in the direction of arrow 1.
  2. Lift the unit in the direction of arrow 2 while pressing the End Plate.

- **Joining Amplifier Units**
  1. Mount the Amplifier Units at a time onto the DIN track.
  2. Slide the Amplifier Unit until the communication connector is matched (Arrow 1).
  3. Use End Plates (PPFA separately sold) at both ends of the group Amplifier Units to prevent them from separating due to vibration or other causes (Arrow 2).

- **Up to 35 Amplifier Units can be connected to E3NW Communication Unit.**

#### 3 Mounting the sensor head

1. Open the protection cover.
2. Insert the sensor head, with the lock lever on its connection area facing upward, all the way into the connector port.
3. Place the connector cover for E3NC-LH (orange) over the connector.
4. Close the protection cover.

### 2 Settings

#### 2-1 Setting and Display Overview

- **2-2 Switching Control Output**
- **2-3 Sensor Head Display**

#### 2-4 Smart Tuning [Easy Sensitivity Setting]

**Basic Setting**

- 2-point Tuning
- Full Auto Tuning

**Enhancing Durability of the Head against Dust and Stain**

**Maximum Sensitivity Setting**

- Maximum sensitivity tuning: Adjust for maximum sensitivity. Works only when the detector is covered.

**Setting for a Moving Workpiece**

- **Position Tuning**
- Full Auto Tuning
- **Position Tuning**

**Detecting a Transparent or Microscopic Object**

- **Percentage Tuning**
- Percentage tuning setting: 0 to 100%

**Setting to Detect by Workpiece Position**

- **2-point Tuning**

**Initializing Light Intensity Changed Due to Dust or Dirt**

- **Power Tuning**

**Output switching**

- **2-3 Output Selection Indicator switches to the settings.**

- **L/D switching can be performed on Output 2 as well.**

### 3 Smart Tuning Error

- **Increased error when tuning is set to 50% or 60% mistake in tuning.**

### 4 Minute Adjustment of Threshold Level

- **Hold the key for high-reverse level adjustment.**

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**E3NC-LA0**

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**INSTRUCTION SHEET**

**E3NC-LA0**

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**Smart Laser Amplifier**

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**PRECAUTIONS ON SAFETY**

- **Means of Signal Words**
  - Warning: Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury or in property damage.
  - Warning: Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury or in property damage.

- **Warning Indications**
  - If you notice an abnormal condition such as a strange odor, extreme heating of the unit, or smoke,
  - Do not attempt to disassemble, repair, or modify the product in any way.
  - Burn injury may occur. The product surface temperature rises depending on application conditions, such as the ambient temperature and the power supply voltage. Use caution when operating or cleaning the devices and power devices.

- **Warning**
  - Never use the product with an AC power supply. Otherwise, explosion may result.
  - Do not use the product with voltage in excess of the rated voltage. Excess voltage may result in malfunction or fire.
  - Do not use the product in any atmosphere or environment that exceeds the ratings.
  - Do not use the product in environments subject to flammable or explosive gases.
  - Do not install the product in the following locations.
  - Locations subject to direct sunlight
  - Locations subject to exposure to water, oil, chemicals
  - Locations subject to corrosive gas
  - Locations subjected to strong magnetic field or electric field
  - Burn injury may occur. The product surface temperature rises depending on application conditions, such as the ambient temperature and the power supply voltage. Use caution when operating or cleaning the devices and power devices.

- **Protection Cap**
  - The color of the connector cover for E3NC-LH is blue.
  - E3NC-LH’s connector area facing upward, all the way with a single amplifier unit.

- **Compatible Communication Unit (Sold Separately)**
  - E3NW Series Communication Unit, Distribution unit E3NW-DS

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**CHECKING THE PACKAGING CONTENT**

- **Amplifier Unit 1**
- **Instruction Sheet (this sheet)**
- **Japanese, English and Chinese**

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**OMRON**

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**Thank you for purchasing an OMRON product. The user manual should be thoroughly understood in installing and operating the product.**

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**Notice:**

- A specialist who has the knowledge of electricity must treat the product.
- Do not attempt to disassemble, repair, or modify the product in any way.
- Do not use the product in any atmosphere or environment that exceeds the ratings.
- Do not use the product in environments subject to flammable or explosive gases.
- Do not install the product in the following locations.
  - Locations subject to direct sunlight
  - Locations subject to exposure to water, oil, chemicals
  - Locations subject to corrosive gas
  - Locations subjected to strong magnetic field or electric field
- Burn injury may occur. The product surface temperature rises depending on application conditions, such as the ambient temperature and the power supply voltage. Use caution when operating or cleaning the devices and power devices.
4. Maintenance

M. Opening Maintenance

1. Disassemble the body to change the Transmission Window (parts that are adhered to the lens).

2. Clean the Transmission Window (parts adhered to the lens) with an air gun or cloth.

3. Assemble the Transmission Window after replacing it.

5. Detailed Settings

5.1 Convenient Setting Features

- Function Selection: [ ]

- Reset (The same procedure)

- When DPC function/smart tuning is executed.

5.2 Ratings and Specifications

- Off-delay Timer

- On-delay Timer

- For Output When Received Light Intensity is Within the Area

- Time to pass the workpiece.

- Inverted Display

- Displays Incident Light Level

- When error is not corrected.

- Set the hysteresis width by initial value. Hysteresis width is provided for

- The indicators (green digital and white digital) turn OFF.

- Solution Viewer

- LOW: Received light intensity in 3. - Received light intensity in 3. × Absolute value of percent tuning level

- HIGH: Received light intensity in 3. + Received light intensity in 3. × Absolute value of percent tuning level

- Let the workpiece pass.

- Let the workpiece pass.

- University of OMRON

- And that the OMRON product(s) is properly rated and

- Buyer shall take application responsibility in all cases.

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