E3G-L/ML

Adjustment Steps

| Procedure | Operation |
|-----------|--|
| 1 | Install, wire, and turn ON the Sensor. |
| 2 | Perform sensitivity adjustments (teaching). →Refer to Distance Setting (Teaching) below. |
| 3 | Check that the mode selector switch is set to RUN. |

Distance Setting (Teaching)

Select the most appropriate teaching method in reference to the following descriptions.

| Application | Teaching without sensing objects (i.e., teaching the background). | Setting a threshold in the middle between the background and sensing object for operation. | Detection of glossy objects in front of the background. | Setting the maximum sensing distance of the Sensor. | |
|-----------------|--|--|--|--|--|
| | • | | | | |
| Teaching | Normal one-point teaching | Normal two-point teaching | Zone teaching | Maximum distance setting (in normal mode) | |
| Setting method | Press the TEACH button with the background object. | Press the TEACH button with the background object and with the sensing object. | Press the TEACH button with the background object (conveyor, etc.). | Press the TEACH button for longer than three seconds. | |
| Set threshold | Threshold (a) is set to a distance in front of the background of 20% of the background distance. | Threshold (a) is set approximately in the middle between the background and sensing object. | Thresholds (a and b) are set in the sensing distance on condition that the difference between these thresholds are approximately 10% of the whole sensing distance. | The threshold is set so that the stability indicator will turn ON at approximately 2 m if the sensing object is white paper. | |
| Output ON range | The output is ON between the Sensor and La. | The output is ON between the Sensor and La. | The output is ON between La and Lb. (For D–ON) (This utilizes the fact that glossy objects are recognized as being farther away than the background.) | The output is ON whenever the sensing object is located between the Sensor and at a distance of 2.2 m. | |

La: Distance equivalent to threshold (a)

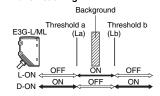
Lb: Distance equivalent to threshold (b)

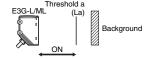
Normal Mode

1. Normal One-point Teaching

2. Normal Two-point Teaching

Zone Mode Zone Teaching





Normal One-point Teaching

| roce- dure | Operation |
|---------------|--|
| 1 | Set the mode selector switch to TEACH. |
| 2 | Set the NORMAL/ZONE mode selector switch to NORMAL. |
| 3 | Press the TEACH button with no sensing object • The teaching indicator (red) will turn ON. |
| 4 | Set the mode selector switch to RUN. (Set to L-ON or D-ON mode.) |

Note: Perform normal one-point teaching with the background.

Normal Two-point Teaching

| Proce- dure | Operation |
|----------------|--|
| 1 | Set the mode selector switch to TEACH. |
| 2 | Set the NORMAL/ZONE mode selector switch to NORMAL. |
| 3 | Press the TEACH button with a sensing object located at the sensing position. • The teaching indicator (red) will turn ON. |
| 4 | Move the sensing object and press the TEACH button with the background. If the teaching is successful, the teaching indicator (green) will turn ON. If the teaching is not successful, the teaching indicator (red) will start to flash. |
| 5 | If the teaching is successful, set the mode selector switch to RUN to complete the teaching operation. Set the E3G to light- or dark-ON mode with the mode selector switch according to the application. If the teaching is not successful, change the set distance and object sensing position and repeat two-point teaching from step 3. |

Zone Teaching

| Proce- dure | Operation |
|----------------|---|
| 1 | Set the mode selector switch to TEACH. |
| 2 | Set the NORMAL/ZONE mode selector switch to ZONE. |
| 3 | Press the TEACH button with the background. • The teaching indicator (red) will turn ON first. Then the teaching indicator (green) will turn ON. |
| 4 | Set the mode selector switch to RUN. (Set to L-ON or D-ON mode.) |

Note: Perform zone teaching with the background.

Maximum Distance Setting (in Normal Mode)

Use the following procedure to set the maximum distance setting.

| Proce- dure | Operation |
|----------------|---|
| 1 | Set the mode selector switch to TEACH. |
| 2 | Set the NORMAL/ZONE mode selector switch to NORMAL. |
| 3 | Press the TEACH button for 3 s or more. • The teaching indicator (red) will turn ON. • The teaching indicator (green) will turn ON in 3 s. |
| 4 | When the teaching indicator (green) will turns ON, it means that teaching was successful. Set the mode selector switch to RUN. (Set to L-ON or D-ON mode.) |