# Sensors

# E3C-LS3R



# Adjustment Method (I)

When the reflectivity of the sensing object is equal to or higher than that of the background object

(1)Place the Sensor at the position of  $a = 30_0^{+3}$  mm.

- (2)Move the SENSITIVITY adjuster to the MAX position and make sure that the LIGHT and STABILITY indicators of the amplifier turn ON. If the LIGHT and STABILITY indicators do not turn ON, move the Sensor within a 2 to 3 mm range until the indicators turn ON.
- (3)Remove the sensing object, turn the SENSITIVITY adjuster gradually to the MIN position, and stop turning it when the LIGHT indicator turns OFF. Define this position as point B.
- (4)Place the sensing object in the given position.
- (5)Move the SENSITIVITY adjuster to MIN from the position in (4), turn it gradually to the MAX position, and stop turning it when the LIGHT indicator turns ON. Define this position as point A. The optimum adjustment is made by setting the SENSITIVITY adjuster in the middle of points A and B.

	LIGHT indicator (red)	STABILITY indicator (green)	
Sensing object	Lit	Lit	
Background objects	Not lit	Lit	

Make sure that the states in the above table are established.

# E3Z

### Slits for Through-beam Models (E39-S65A/B/C/D/E/F (Sold Separately))



## Adjustment Method (II)

When the reflectivity of the sensing object is lower than that of the background object

(1)Place the Sensor at the position of  $b = 30^{+3}_{-3}$  mm.

(2)Remove the sensing object.

- (3)Turn the SENSITIVITY adjuster gradually from the MIN position to the MAX position, and stop turning it when the LIGHT indicator turns OFF. Define this position as point B.
- (4)Place the sensing object in the given position.
- (5)Turn the SENSITIVITY adjuster gradually to the MAX position and stop turning it when the LIGHT indicator turns ON. Define this position as point A.

(6)Set the SENSITIVITY adjuster in the middle of points A and B.

	LIGHT indicator (red)	STABILITY indicator (green)
Sensing object	Not lit	Lit
Background objects	Lit	Lit

Make sure that the states in the above table are established.

Note: To turn ON the output relay with the sensing object (turn the no-contact output "H"), set the operation selector switch to the "DARK ON" position.

### Mounting method

- Hook the upper protruding portion of the Slit to the upper indented mounting portion of the Sensor and adjust the position of the Slit so that the Slit will be in parallel to the lens side of the Sensor.
- Press the lower protruding portion of the Slit onto the indented mounting portion of the Sensor until the Slit snaps in.

#### Mounting condition



### Removal method

- 1. Press the upper portion of the Slit.
- 2. Disconnect the lower protruding portion of the Slit from the Sensor and remove the Slit.

# E3Z

#### Sensitivity Sensing condition Indicators Procedure Item adjustor $ON \rightarrow OFF$ $\mathsf{OFF}\to\mathsf{ON}$ Photoe ectric Sensor Locate a sensing object at the sensing distance, and turn Sensing object ••0 the sensitivity adjustor clockwise to increase the sensitivity $\bigcirc$ (1) Position A until the operation indicator (orange) is ON. Position A is where the indicator has turned ON. STABILITY OPERATION (green) (orange) Remove the sensing object and turn the sensitivity adjustor clockwise until the E3S-C detects the background object $ON \rightarrow OFF$ $ON \rightarrow OFF$ Photoelectric Senso and the operation indicator (orange) is ON. Position B is (C) where the indicator has turned ON. Turn the sensitivity (2) Position 000 Background $\bigcirc$ $\bigcirc$ adjustor counterclockwise to decrease the sensitivity until (B) B and C the orange operation indicator is OFF. Position C is where STABILITY OPERATION the indicator has turned OFF. (orange) (green) If there is no background object, position C is where the sensitivity adjustor is set to maximum. Set the sensitivity indicator to the position between ON $ON \rightarrow OFF$ (C) Positions A and C (the optimum sensitivity setting). The Photoelectric Sensor will then work normally if the stability (3) Setting indicator (green) is lit with and without the sensing object. OPERATION If it is not lit, stable operation cannot be expected, in which STABII ITY (green) (orange) case a different sensing method must be applied.

### Sensitivity adjustment for diffuse-reflective models that turn ON with incident light

Note: When the reflectivity of background object is higher than that of sensing object, move the adjuster to the position A for background object, and move the adjuster to the position B and C for sensing object.

# E3ZM/E3ZM-C

### Sensitivity adjustment for diffuse-reflective models that turn ON with incident light

Item	Sensing condition	Sensitivity adjustor	Indicators		Procedure
(1) Position A	Photoelectric Sensor		ON → OFF O STABILITY (green)	OFF → ON OPERATION (yellow)	Locate a sensing object at the sensing distance, and turn the sensitivity adjustor clockwise to increase the sensitivity until the operation indicator (yellow) is ON. Position A is where the indicator has turned ON.
(2) Position B and C	Photoelectric Sensor	(C) (B)	ON → OFF O STABILITY (green)	ON → OFF OPERATION (yellow)	Remove the sensing object and turn the sensitivity adjustor clockwise until the E3S-C detects the background object and the operation indicator (yellow) is ON. Position B is where the indicator has turned ON. Turn the sensitivity adjustor counterclockwise to decrease the sensitivity until the yellow operation indicator is OFF. Position C is where the indicator has turned OFF. If there is no background object, position C is where the sensitivity adjustor is set to maximum.
(3) Setting		(A) (C)	ON STABILITY (green)	$ON \rightarrow OFF$ OPERATION (yellow)	Set the sensitivity indicator to the position between Positions A and C (the optimum sensitivity setting). The Photoelectric Sensor will then work normally if the stability indicator (green) is lit with and without the sensing object. If it is not lit, stable operation cannot be expected, in which case a different sensing method must be applied.

Note: When the reflectivity of background object is higher than that of sensing object, move the adjuster to the position A for background object, and move the adjuster to the position B and C for sensing object.