



Photoelectric Sensor

E series

ET-500□□□ EL-15□□□
 ED-100□□□ EL-08□□□
 EL-30□□□

INSTRUCTION MANUAL

- Thank you for purchasing the E series.
- Please read this manual before using the sensor, and retain it for future reference.
- Carefully read and understand the safety precautions before operation. The important information is provided to protect your health and property.

CAUTION

Indicates a possible hazard that may result in personal injury or property damage if the product is used without observing the stated instructions.

CAUTION

Mandatory Requirements

- This product is not an explosion-proof construction. Do not use the product under flammable explosive gas or liquid environment.
- Never fail to turn OFF the power supply when wiring or disconnecting.

Operating Precautions

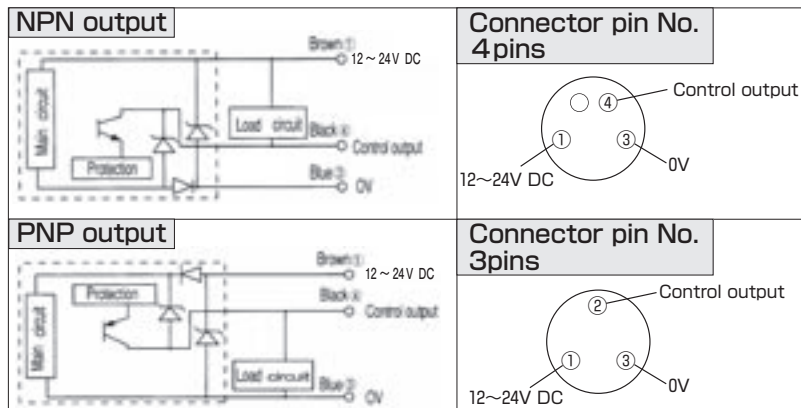
- The sensor performance may depend on the individual units.
- Wipe off dirt on the emitting/receiving parts to maintain correct detection. Also, avoid direct impact on the product.

! This product cannot be used as a safety device to protect human body.

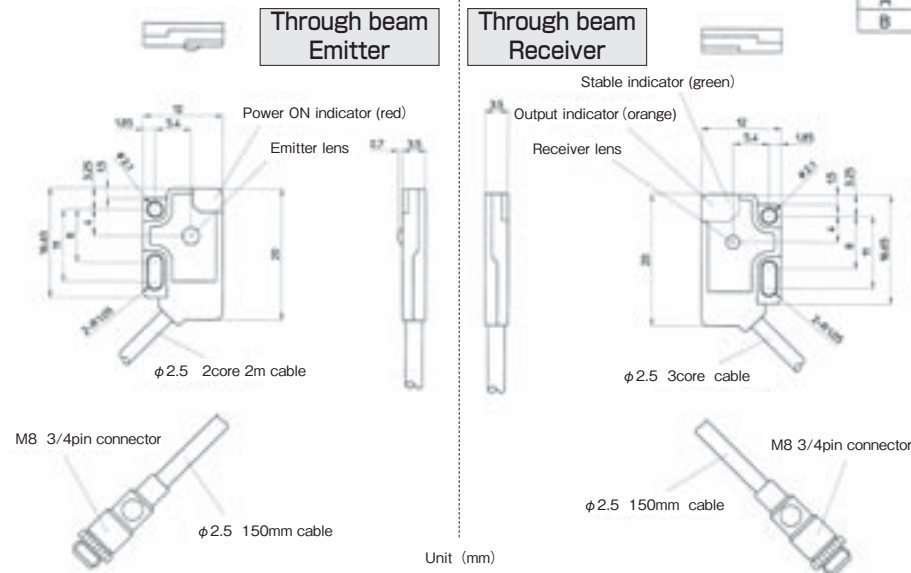
Specifications

| Model | Through beam type | Diffuse ref. type | Convergent type | | |
|----------------------------|--|-----------------------|----------------------|----------------------|----------------------|
| | | | Long | Middle | Short |
| Cable | ET-500NL/ND/PL/PD | ED-100NL/ND/PL/PD | EL-30NL/ND/PL/PD | EL-15NL/ND/PL/PD | EL-08NL/ND/PL/PD |
| M8 4pin connector | ET-500NL4/ND4/PL4/PD4 | ED-100NL4/ND4/PL4/PD4 | EL-30NL4/ND4/PL4/PD4 | EL-15NL4/ND4/PL4/PD4 | EL-08NL4/ND4/PL4/PD4 |
| M8 3pin connector | ET-500NL3/ND3/PL3/PD3 | ED-100NL3/ND3/PL3/PD3 | EL-30NL3/ND3/PL3/PD3 | EL-15NL3/ND3/PL3/PD3 | EL-08NL3/ND3/PL3/PD3 |
| Detecting distance | 500mm | 100mm | 5 ~ 30mm | 2 ~ 15mm | 3 ~ 8mm |
| Supply voltage | 12 ~ 24V DC (ripple 10% max.) | | | | |
| Current consumption | Emitter : 14mA max. Receiver : 16mA max. | 20mA max. | | | |
| Response time | 0.5ms max. | | | | |
| Hysteresis | White paper : 10% (EL-08 and EL-15), 15% (EL-30 and ED-100) | | | | |
| Control output | E□-□□□N□□ : NPN Open collector E□-□□□P□□ : PNP Open collector 50mA max. / 24V DC | | | | |
| Operation mode | E□-□□□□□□ : Light ON E□-□□□□□□ : Dark ON | | | | |
| Beam size | φ140mm/Distance 500mm | φ60mm/Distance 100mm | φ20mm/Distance 30mm | φ10mm/Distance 15mm | φ10mm/Distance 10mm |
| Indicator | Stable indicator : Green LED Output indicator : Orange LED | | | | |
| Operating temp. / humidity | -25 ~ +55°C / 35 ~ 85%RH (No condensation or freezing) | | | | |
| Storage temp. / humidity | -40 ~ +70°C / 35 ~ 95%RH (No condensation or freezing) | | | | |
| Ambient light | 3,000 lx (Incandescent light) 10,000 lx (Sunlight) | | | | |
| Protection category | IP67 | | | | |
| Material | PC | | | | |

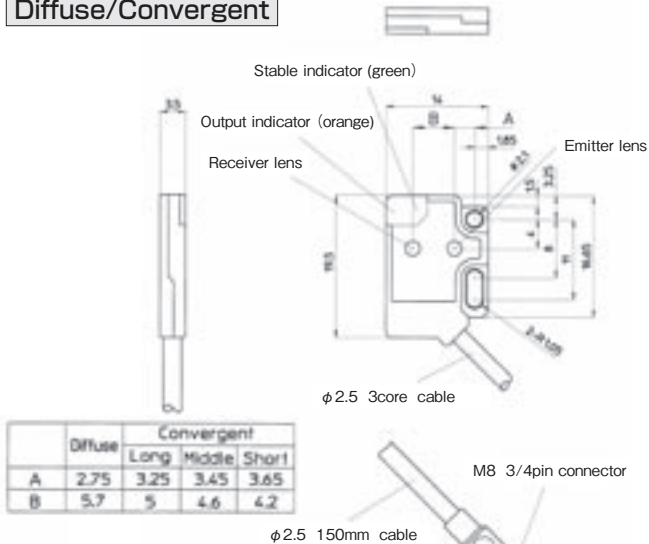
Input and output circuit diagrams



Dimensions



Diffuse/Convergent



- The product specification may change without notice for improvement.

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