

**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**

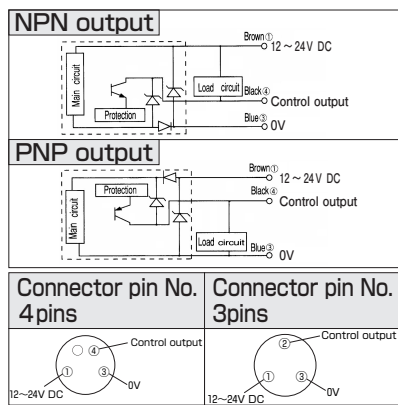
- The sensor performance may depend on the individual units.
- Wipe off dirt on the emitting/receiving parts to maintain correct detection. Also, avoid direct impact on the product.

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

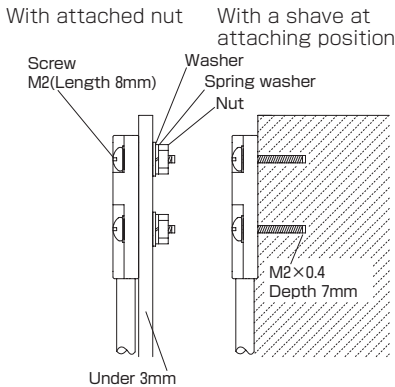
**Specifications**

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□-□□□L□ : Light ON E□-□□□D□ : 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				

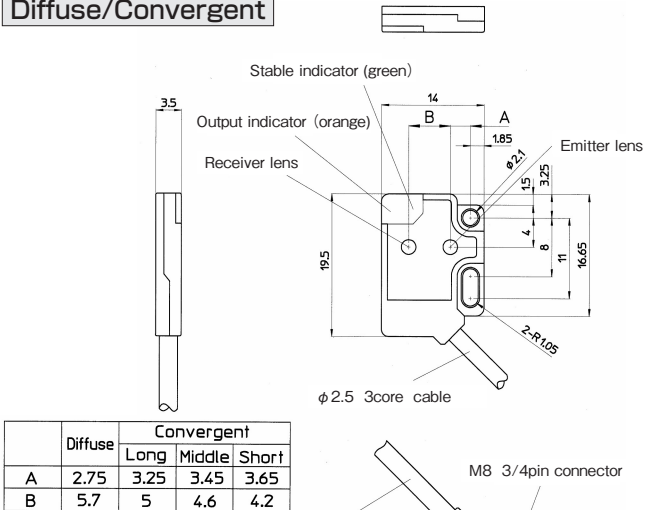
**Input and output circuit diagrams**



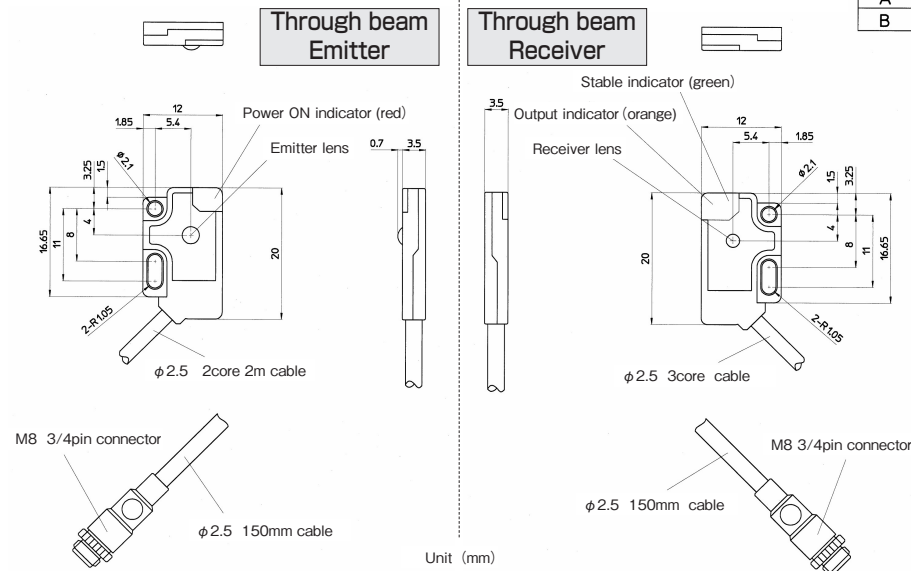
**Attachment**



**Diffuse/Convergent**



**Dimensions**



● The product specification may change without notice for improvement.

[http://www.optex-fa.com/rohs\\_cn/](http://www.optex-fa.com/rohs_cn/)

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Website <http://www.optex-fa.com>

**E series**

ET-S500□□□

ED-S30□□□

EL-S15□□□

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**Operating Precautions**

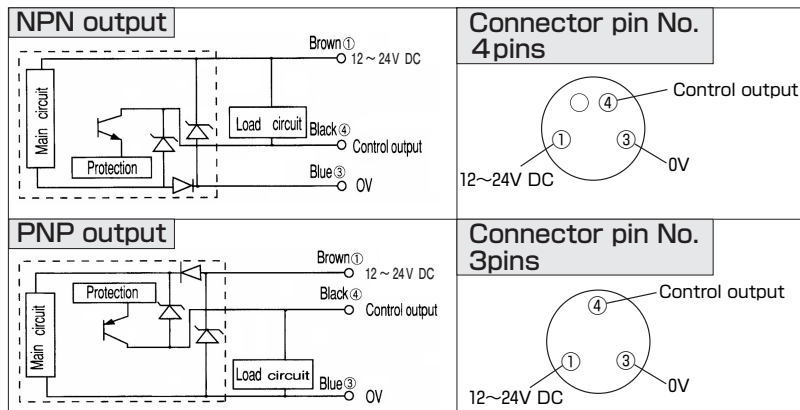
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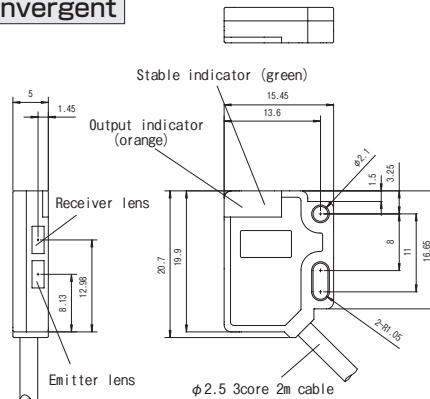
**Specifications**

Model	Through Beam type		Diffuse ref. type	Convergent type
	Cable	ET - S 500NL/ND/PL/PD	ED - S 30NL/ND/PL/PD	EL - S 15NL/ND/PL/PD
	M 8 4 pin connector	ET - S 500NL4/ND4/PL4/PD4	ED - S 30NL4/ND4/PL4/PD4	EL - S 15NL4/ND4/PL4/PD4
	M 8 3 pin connector	ET - S 500NL3/ND3/PL3/PD3	ED - S 30NL3/ND3/PL3/PD3	EL - S 15NL3/ND3/PL3/PD3
Detecting distance	500mm		30mm	2 ~ 15mm
Supply voltage	DC12 ~ 24V DC (ripple 10% max.)			
Current consumption	Emitter : 14mA max. Receiver : 16mA max.		20mA max.	
Response time	0.25ms max.		0.5ms max.	
Hysteresis	-		White paper : 10%	
Control output	E□ - S□□□□N□□ : NPN Open collector		E□ - S□□□□P□□ : PNP Open collector	50mA max. / 24VDC
Operation mode	E□ - S□□□□L□ : Light ON    E□ - S□□□□D□ : Dark ON			
Beam size	φ 60mm / Distance 500mm		φ 3mm / Distance 30mm	φ 2mm / Distance 15mm
Indicator	Stable indicator : Green LED		Output indicator : Orange LED	Power indicator (Emitter) : Red 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	3,000lx (Incandescent light)		10,000lx (Sunlight)	
Protection category			IP67	
Material			PC	

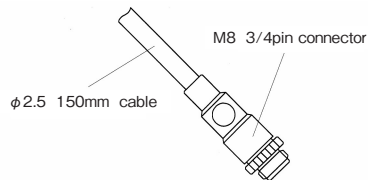
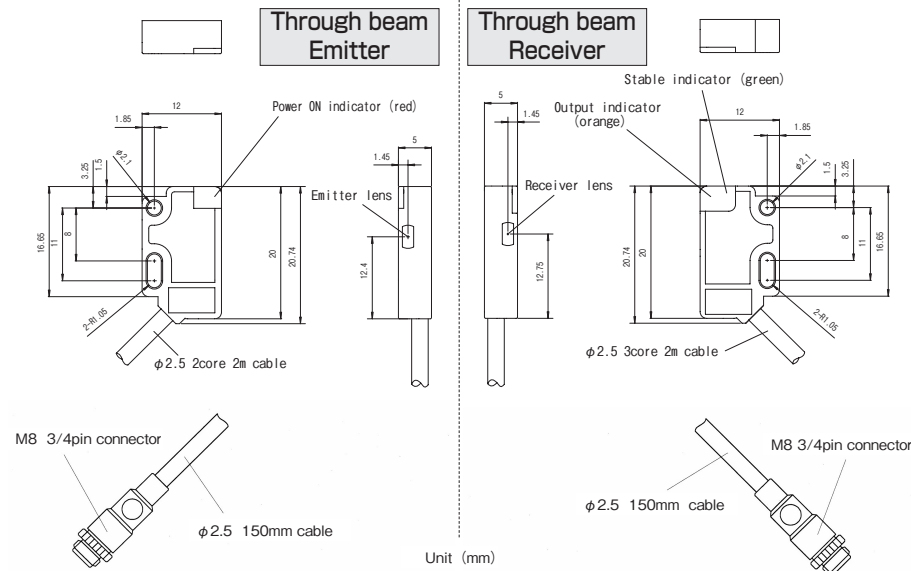
**Input and output circuit diagrams**



**Diffuse/Convergent**



**Dimensions**



Unit (mm)

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**!** **10** → [http://www.optex-fa.com/rohs\\_cn/](http://www.optex-fa.com/rohs_cn/)

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