



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 and understand this manual prior to using the sensor, also retain it for future reference.
- Carefully read and understand the safety precautions prior to operation. 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 does not have explosion proof construction. Do not use the product in locations where there is flammable and / or explosive gases or liquids.
- Never fail to turn the power supply OFF when connecting or disconnecting the sensor.

Operating Precautions

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

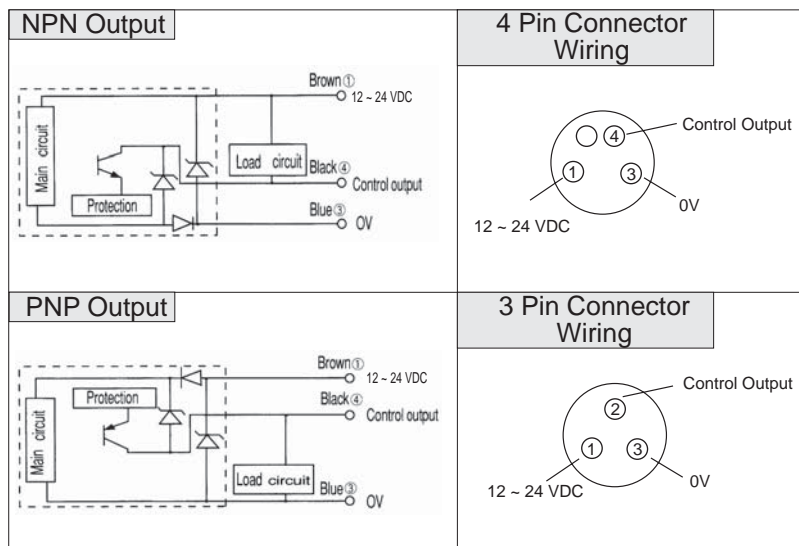
This product cannot be used as a safety device to protect the human body.

Specifications

Model	Cable	Thru-beam Type		Diffuse Reflective	
		NPN Output	PNP Output	NPN Output	PNP Output
	M8 4 pin connector	ET-500N(L/D)	ET-500P(L/D)	ED-100N(L/D)	ED-100P(L/D)
	M8 3 pin connector	ET-500N(L/D)4	ET-500P(L/D)4	ED-100N(L/D)4	ED-100P(L/D)4
	M8 3 pin connector	ET-500N(L/D)3	ET-500P(L/D)3	ED-100N(L/D)3	ED-100P(L/D)3
Detecting Distance		500 mm		100 mm	
Supply Voltage		12 ~ 24 VDC (ripple 10% max.)			
Current Consumption		Emitter: 14 mA max. Receiver: 16 mA max.		20 mA max.	
Response Time		0.5 msec. max.			
Hysteresis		White paper: 10% (EL-08 and EL-15), 15% (EL-30 and ED-100)			
Control Output		Open collector NPN or PNP, 50 mA max. / 24 VDC			
Operation Mode		Light On (L in the part number, e.g. ET-500NL) or Dark On (D in the part number, e.g. ET-500ND) operation			
Beam Size		Ø 140 mm @ 500 mm		Ø 60 mm @ 100 mm	
Indicator		Stability indicator: Green LED Output indicator: Orange LED			
Operating Temp. / Humidity		-25 ~ +55°C / 35 ~ 95% 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			

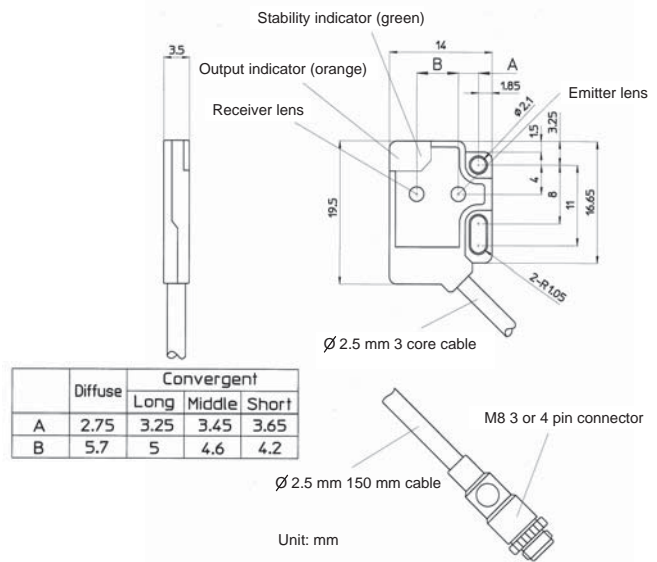
Model	Cable	Convergent Beam Type					
		Long		Middle		Short	
		NPN Output	PNP Output	NPN Output	PNP Output	NPN Output	PNP Output
	M8 4 pin connector	EL-30N(L/D)	EL-30P(L/D)	EL-15N(L/D)	EL-15P(L/D)	EL-08N(L/D)	EL-08P(L/D)
	M8 3 pin connector	EL-30N(L/D)4	EL-30P(L/D)4	EL-15N(L/D)4	EL-15P(L/D)4	EL-08N(L/D)4	EL-08P(L/D)4
	M8 3 pin connector	EL-30N(L/D)3	EL-30P(L/D)3	EL-15N(L/D)3	EL-15P(L/D)3	EL-08N(L/D)3	EL-08P(L/D)3
Detecting Distance		5 ~ 30 mm		2 ~ 15 mm		3 ~ 8 mm	
Supply Voltage		12 ~ 24 VDC (ripple 10% max.)					
Current Consumption		20 mA max.					
Response Time		0.5 msec. max.					
Hysteresis		White paper: 10% (EL-08 and EL-15), 15% (EL-30 and ED-100)					
Control Output		Open collector NPN or PNP, 50 mA max. / 24 VDC					
Operation Mode		Light On (L in the part number, e.g. ET-500NL) or Dark On (D in the part number, e.g. ET-500ND) operation					
Beam Size		Ø 20 mm @ 30 mm		Ø 10 mm @ 15 mm		Ø 10 mm @ 10 mm	
Indicator		Stability indicator: Green LED Output indicator: Orange LED					
Operating Temp. / Humidity		-25 ~ +55°C / 35 ~ 95% 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)					
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Input and Output Circuit Diagrams



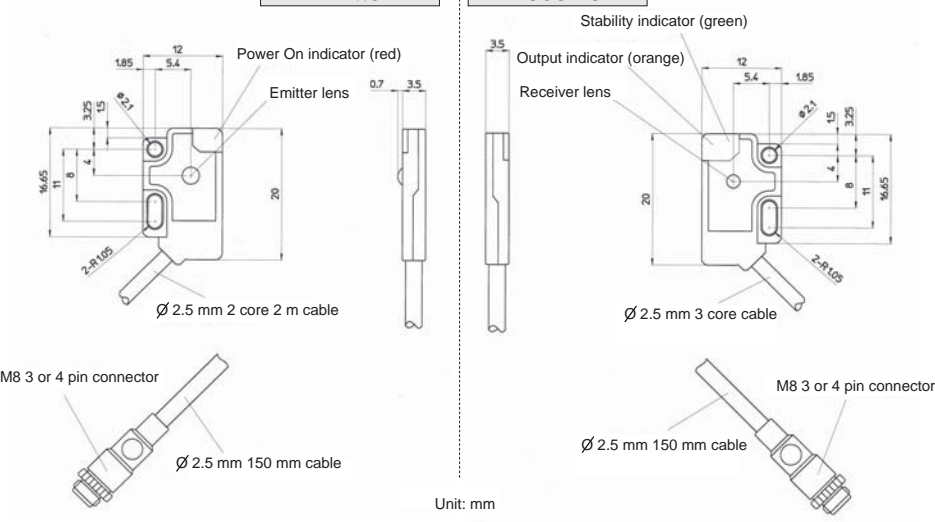
Dimensions

Diffuse / Convergent



Thru-beam Emitter

Thru-beam Receiver



• The product specifications may change without notice for improvement.

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