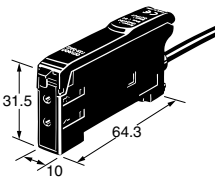
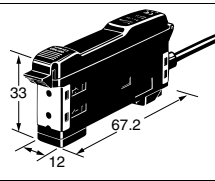
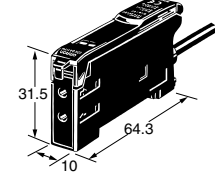


Selection Guide

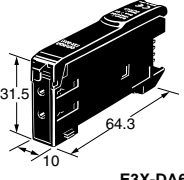
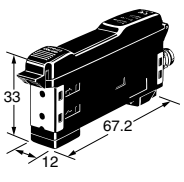
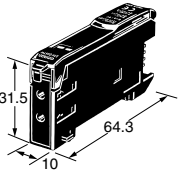
■ Photoelectric Sensors

Classified According to Product Model

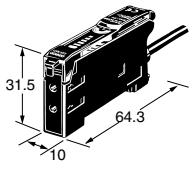
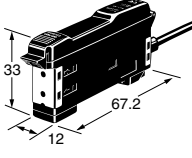
Digital Fiber Amplifiers with Cables

Appearance	Classification	Control output	Model		
			Output configuration		
			NPN output	PNP output	
 E3X-DA11-N	General purpose	• ON/OFF output	E3X-DA11-N	E3X-DA41-N	
	Monitor output	• ON/OFF output • Monitor output	E3X-DA21-N	E3X-DA51-N	
	Mark de- tection	Blue LED	• ON/OFF output	E3X-DAB11-N	E3X-DAB41-N
		Red LED		E3X-DAG11-N	E3X-DAG41-N
	Infrared diode	E3X-DAH11-N		E3X-DAH41-N	
Differential output	E3X-DA11D <i>NEW</i>	---			
	Water resistant	• ON/OFF output		E3X-DA11V	E3X-DA41V
	Twin output		E3X-DA11TW	E3X-DA41TV	

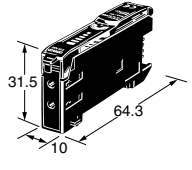
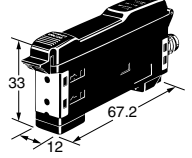
Digital Fiber Amplifiers with Connectors

Appearance	Classification	Applicable Connector (order separately)		Control output	Model		
					Output configuration		
					NPN output	PNP output	
 E3X-DA6	General purpose	Master	E3X-CN11	• ON/OFF output	E3X-DA6	E3X-DA8	
		Slave	E3X-CN12				
	Monitor output	Master	E3X-CN21	• ON/OFF output • Monitor output	E3X-DA7	E3X-DA9	
		Slave	E3X-CN22				
	Mark de- tection	Blue LED	Master	E3X-CN11	• ON/OFF output	E3X-DAB6	E3X-DAB8
			Slave	E3X-CN12			
		Red LED	Master	E3X-CN11			
			Slave	E3X-CN12			
Infrared diode	Master	E3X-CN11	E3X-DAH6	E3X-DAH8			
Differential output	Master	E3X-CN11	E3X-DA6D <i>NEW</i>	---			
	Slave	E3X-CN12					
	Water resistant (M8 connector)	XS3F-M421-40□-A XS3F-M422-40□-A		• ON/OFF output	E3X-DA14V	E3X-DA44V	
	Twin output	Master	E3X-CN21	• ON/OFF output	E3X-DA6TW	E3X-DA8TW	
		Slave	E3X-CN22				




■ Photoelectric Sensors
 Classified According to Product Model
 Fiber Amplifiers with Adjustors and Cables

Appearance	Classification	Control output	Model	
			Output configuration	
			NPN output	PNP output
	General purpose	• ON/OFF output	E3X-NA11	E3X-NA41
	High-speed detection		E3X-NA11F <i>NEW</i>	E3X-NA41F <i>NEW</i>
	Mark detection		E3X-NAG11	E3X-NAG41
	Water resistant		E3X-NA11V <i>NEW</i>	E3X-NA41V <i>NEW</i>

Fiber Amplifiers with Adjustors and Connectors

Appearance	Classification	Applicable Connector (order separately)		Control output	Model	
		Output configuration				
		NPN output	PNP output			
	General purpose	Master	E3X-CN11	• ON/OFF output	E3X-NA6	E3X-NA8
		Slave	E3X-CN12			
	Water resistant (M8 connector)	XS3F-M421-40□-A XS3F-M422-40□-A			E3X-NA14V <i>NEW</i>	E3X-NA44V <i>NEW</i>

Fiber Amplifier Sensor Communication Units

Appearance	Communications method	Features	Connectable Fiber Amplifiers	Model
 <i>NEW</i>	DeviceNet			E3X-DRT21
 <i>NEW</i>	CompoBus/S	<ul style="list-style-type: none"> Equipped with connector for wiring and space reductions. Connection possible for up to 16 Units (14 Units with CompoBus/S model). 	E3X-DA□6 E3X-DA□8 E3X-DA6□ E3X-DA8TW E39-TM1	E3X-SRT21
 <i>NEW</i>	RS-422			E3X-CIF11

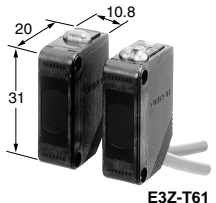
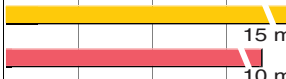
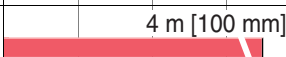
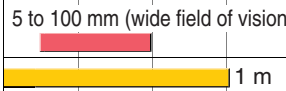
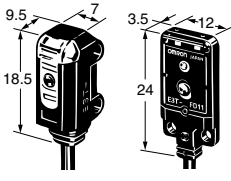
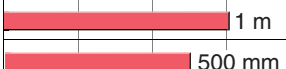
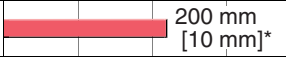
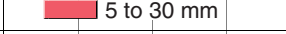
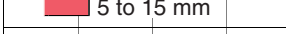
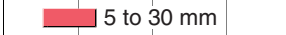
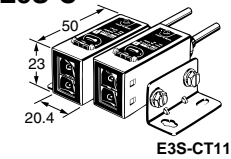




Selection Guide

■ Photoelectric Sensors

Classified According to Product Model

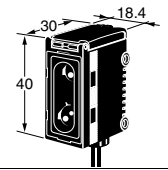

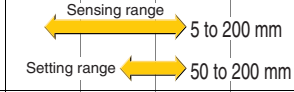

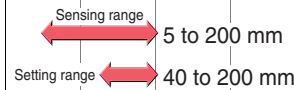
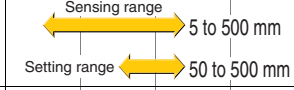
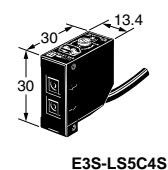

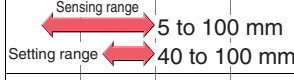


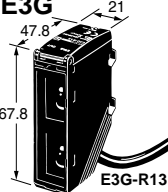

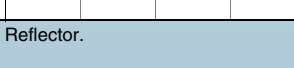
Models with Built-in Amplifier (General Purpose)

■ Red light ■ Infrared light

Appearance (typical examples)	Features	Sensing method	Sensing distance	Model
E3Z  <p>E3Z-T61</p>	<ul style="list-style-type: none"> • Miniature, long distance • Power and resource savings • Models with M8 connector available. 	Through-beam		E3Z-T□1 (6) E3Z-T□1A (6A)
		Retroreflective (MSR)		E3Z-R□1 (6)
		Diffuse reflective		E3Z-D□1 (6) E3Z-D□2 (7)
E3T  <p>E3T-ST11 E3T-FD11</p>	<ul style="list-style-type: none"> • Subminiature, slim • Visible fine beam • High-power beam 	Through-beam		E3T-ST1□ E3T-FT1□
		Retroreflective		E3Z-SR1□
		Diffuse reflective		E3T-FD1□
		Convergent reflective		E3T-SL1□
				E3T-SL2□
E3S-C  <p>E3S-CT11</p>	<ul style="list-style-type: none"> • Excellent water resistance, oil resistance, and long-distance detection • NPN/PNP selectable 	Through-beam		E3S-CT□1 (-M1J)
		Retroreflective (MSR)		E3S-CR□1 (-M1J)
		Diffuse reflective		E3S-CD□1 (-M1J)
	E3S-CD□2 (-M1J)			

Models with Built-in Amplifiers

■ Red light ■ Infrared light

Appearance	Features	Sensing method	Sensing distance	Model
E3G-L1/L3 	<ul style="list-style-type: none"> • Ideal for detecting minute workpieces. • Stable detection even with colored, angled, or glossy objects. • Models with M8 connector available. • Equipped with teaching function. 	Distance setting		E3G-L1□
				E3G-L3□
E3S-CL 	Minimal influence from background objects and colors so that only the required object is detected. Long sensing distance, oil resistance, and water resistance. High-performance die-cast case.	Distance setting		E3S-CL1
				E3S-CL2
E3S-LS  <p>E3S-LS5C4S</p>	Eliminates influence from background objects and colors so that only the required object is detected. Compact plastic case, small spot	Distance setting		E3S-LS5C4S E3S-LS5B4S1
				E3S-LS10C4S
				E3S-LS20C4S E3S-LS20B4S1
				E3S-LS20C4S E3S-LS20B4S1
E3G  <p>E3G-R13</p>	<ul style="list-style-type: none"> • Two long-distance detection models available. • E3G-M models can use either AC or DC power supplies. 	Retroreflective (MSR)		E3G-R1□ E3G-MR19 (T)
		Distance setting		E3G-L7□ E3G-ML79 (T)

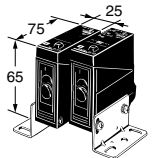
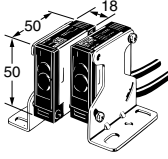
* The figures in square brackets indicate the minimum required distance between the Sensor and the Reflector.

Photoelectric Sensors

Classified According to Product Model

Models with Built-in Power Supply

Red light Infrared light

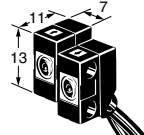
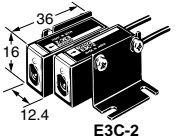
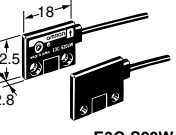
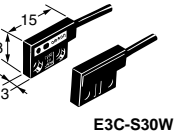
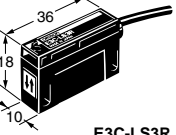
Appearance	Features	Sensing method	Sensing distance	Model
E3JM  E3JM-10M4	Easy wiring and adjustment	Through-beam	10 m	E3JM-10M4 (T) E3JM-10S4 (T)
		Retroreflective (MSR)	4 m	E3JM-R4M4 (T) E3JM-R4S4 (T)
		Diffuse reflective	700 mm	E3JM-DS70M4 (T) E3JM-DS70S4 (T)
E3JK  E3JK-5M1	Slim body full of functions	Through-beam	5 m	E3JK-5M□ E3JK-5S3
		Retroreflective (MSR)	2.5 m (3 m) *1	E3JK-R2M□ E3JK-R2S3
		Retroreflective	4 m (5 m) *1	E3JK-R4M□ E3JK-R4S3
		Diffuse reflective	300 mm	E3JK-DS30M□ E3JK-DS30S3

*1. The figures in parentheses indicate the sensing distances for use with the E39-R2 Reflector.

*2. The figures in square brackets indicate the minimum required distance between the Sensor and the Reflector.

Models with Separate Amplifiers

Infrared light

Sensor					Amplifier		
Model	Sensing method	Sensing distance	Model	Features	Model	Features	
E3C  E3C-S50  E3C-2  E3C-S20W  E3C-S30W  E3C-LS3R	Through-beam	100 mm	E3C-S10	Subminiature sensing head; dense mounting supported	E3C-A	General purpose	
		500 mm	E3C-S50				
		1 m	E3C-1				
		2 m	E3C-2				
		200 mm	E3C-S20W				
		300 mm	E3C-S30W				
	Diffuse reflective		100 mm	E3C-DS10	Subminiature sensing head; dense mounting supported	E3C-JC4P	Self-diagnostic output function; ON delay timer
			50 mm	E3C-DS5W			
			100 mm	E3C-DS10T			
	Convergent reflective		30±3 mm	E3C-LS3R	Ideal for detection of uneven surfaces or level differences.	E3C-GE4	Miniature
					E3C-WE4	Slim; supports DIN track mounting; NPN	
					E3C-WH4F	Slim; supports DIN track mounting; NPN/PNP selectable	

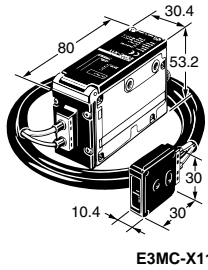
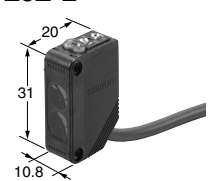
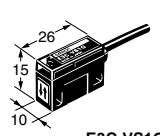
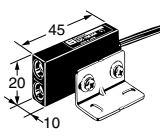
Selection Guide

■ Photoelectric Sensors

Classified According to Product Model

Models with Built-in Amplifier (General Purpose)

■ Red light
■ Infrared light
■ RGB light

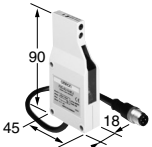
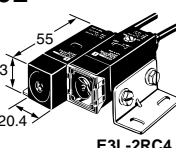

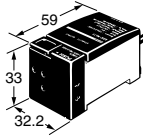
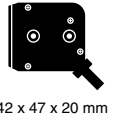

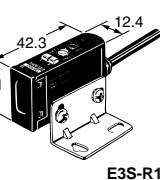

Application	Sensor		Amplifier			
	Model	Sensing method	Sensing distance	Model	Features	
Full Color Sensors (LED)	E3MC  E3MC-X11	Features [ON/OFF models] • Detect minute level differences. • Minimal influence from rattling and glossy workpieces. [Analog output models] • Color data converted to R, G, and B analog data	Built-in amplifier	■ 60±10 mm	E3MC-A□1 E3MC-MA□1	
			Fiber	■ 20±4 mm	E3MC-X□1 E3MC-MX□1	
			General purpose, fiber	■ 5 mm (E32-CC200)	E3MC-Y□1	
				■ 200 mm (E32-T16)	E3MC-MY□1	
			Built-in amplifier	■ 60±10 mm	E3MC-A81	
			Fiber	■ 20±4 mm	E3MC-X81	
			General purpose, fiber	■ 5 mm (E32-CC200)	E3MC-Y81	
Thin Beam Spot Sensors	E3Z-L 	• 2.5-mm-dia. small spot • Visible light • Models with M8 connector available.	Reflective	■ 90±30 mm	E3Z-L□1(6)	
Small Spot/Mark Sensors	E3C-VS/VM  E3C-VS1G  E3C-VM35R	Reflective (for marking detection)	■ 10±2 mm	E3C-VS1G	Sharp sensing with a fine beam. Ideal for detection of minute objects and level differences.	E3C-A General purpose
			■ 30±5 mm	E3C-VS3R		E3C-C Timer function
			■ 35±5 mm	E3C-VM35R		E3C-JC4P Self-diagnostic output function; OFF delay time
			■ 70±10 mm	E3C-VS7R		E3C-GE4 Miniature
						E3C-WE4 Slim; supports DIN track mounting; NPN
						E3C-WH4F Slim; supports DIN track mounting; NPN/PNP selectable

Photoelectric Sensors

Classified According to Product Model

Classified According to Application

Red light Infrared light

Application	Appearance	Features	Sensing method	Sensing distance	Model	
Lasers	F3C-AL 	Stable detection possible for all colors, even with reflective backgrounds such as SUS, by adjusting the distance.	Distance setting	Sensing range: 120 to 700 mm Setting range: 150 to 700 mm	F3C-AL□4-M1J	
	E3L 	Sharp sensing with an ultra-fine laser beam. Detects minute objects at long distance.	Through-beam	2 m ^{*2}	E3L-2RC4	
	E3L-2RC4		Diffuse reflective	500 mm ^{*1} [200 mm]	E3L-DS50E4	
Application	Fiber Unit			Features	Applicable Amplifier	
Application	Appearance	Sensing method	Sensing distance	Model	Appearance	Model
Optical Fiber Glossy Object Sensors	 29 x 29 x 10 mm	E3ML-XE4	10±3 mm	E32-S15-□	 59 x 33 x 32.2 mm	E3X-NL E3X-NL11
	 42 x 47 x 20 mm	Reflective	20±7 mm	E32-S15L-□		
Application	Appearance	Features	Sensing method	Sensing distance	Model	
Transparent Bottle Sensors (for Detection of Transparent Objects)	E3S-CR62/67 	High precision Detect transparent bottles	Retroreflective	E39-R6 Reflector 250 mm	E3S-CR62	
	E39-R1 Reflector 1 m [250 mm] ^{*1}			E3S-CR67		
	E3S-R 	<ul style="list-style-type: none"> Resin models available. Horizontal and vertical models available. Models with connectors available. 	Retroreflective	300 mm [100 mm] ^{*1}	E3S-R□2 E3S-R□7	
	E3S-R11		Retroreflective (MSR)	1 m [100 mm] ^{*1}	E3S-R□1 E3S-R□6	
			Retroreflective	300 mm	E3S-RS30E4 E3S-RS30E42	
				1 m	E3S-R1E4 E3S-R1E42	
	Appearance	Connection method	Sensing method	Sensing distance	Model	
	E3Z-B 	Pre-wired	Retroreflective ^{*3} (No MSR function)	500 mm [80 mm] ^{*4}	E3Z-B61	E3Z-B81
		Connector			E3Z-B66	E3Z-B86
		Pre-wired		2 m [100 mm] ^{*4}	E3Z-B62	E3Z-B82
Connector		E3Z-B67			E3Z-B87	

*1. The figures in square brackets indicate the minimum required distance between the Sensor and the Reflector.
 *2. This figure is for use with a 0.85-mm-dia. slit. The figure is 10 m if no slit is used.
 *3. A Reflector is not provided.
 *4. The figures for sensing distance are for use with an E39-R1S. The figures in square brackets indicate the minimum required distance between the Sensor and the Reflector.
 *5. Models with 0.5-m cables are also available. Specify the cable length required at the end of the model number. (Example: E3Z-B61 0.5 m)

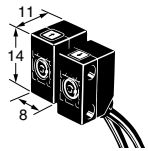

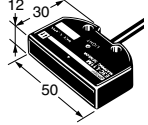

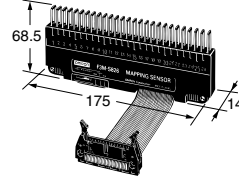
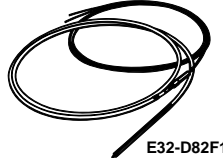
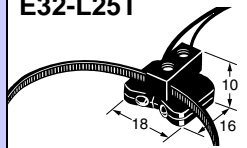
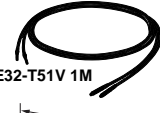



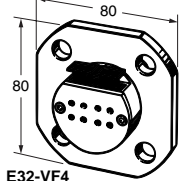
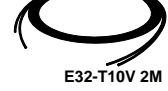
Selection Guide

■ Photoelectric Sensors

Classified According to Product Model

Classified According to Application

■ Red light
 ■ Infrared light

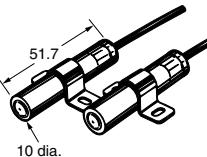

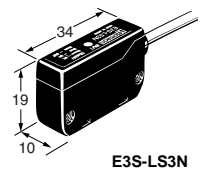
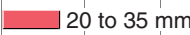


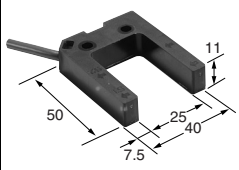

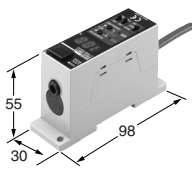
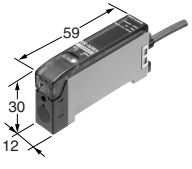
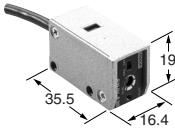
Application	Sensor						Amplifier	
	Appearance	Classification	Sensing method	Sensing distance	Model	Features	Model	Features
Mapping	 E3C-T1	Photoelectric sensor with separate amplifier	Through-beam	 500 mm	E3C-T1 (Model number of set)	Detects wafers; narrow beam	—	Special amplifier
	 E3C-L11M	Photoelectric sensor with separate amplifier	Reflective	 20±10 mm	E3C-L11M	Ideal for mapping liquid crystal glass plates on cassette trays.	E3C-JC4P	Self-diagnostic output function; OFF delay timer
	Appearance		Features		Applicable wafer size	Number of tiers	Model	Standard price
	 F3M-S		Detects silicon wafers and glass wafers together.		6 inches (4.76-mm pitch)	25	F3M-S625	Contact your dealer.
					8 inches (6.35-mm pitch)	26	F3M-S626	
8 inches (6.35-mm pitch)					25	F3M-S825		
8 inches (6.35-mm pitch)					26	F3M-S826		
12 inches (10-mm pitch)					13	F3M-S1213		
12 inches (10-mm pitch)	25	F3M-S1225						
Application	Appearance	Features			Sensing method	Model	Applicable Amplifier	
Liquid level	 E32-D82F	Liquid level fiber sensor Heat resistant (200 °C)			Diffuse reflective	E32-D82F□	E3X-DA-N E3X-NA	
	 E32-L25T	Liquid level fiber sensor Mounts to pipes of 8- to 10-mm diameter (wall thickness: 1 mm).			Reflective	E32-L25T		
Application	Appearance	Classification			Sensing distance (when using E3X-NH)		Model	Applicable Amplifier
Vacuum Sensors	 E32-T51V 1M	Fiber on vacuum side			Through-beam, straight	 100 mm	E32-T51V 1M	E3X-NA
					Through-beam, L-shaped	 65 mm	E32-T54V 1M	
					Through-beam, heat resistant	 250 mm	E32-T84SV 1M	
	 E32-VF4	Flange			4 channels	—	E32-VF4	
					1 channel		E32-VF1	
 E32-T10V 2M	Fiber outside					E32-T10V 2M		

■ Photoelectric Sensors

Classified According to Product Model

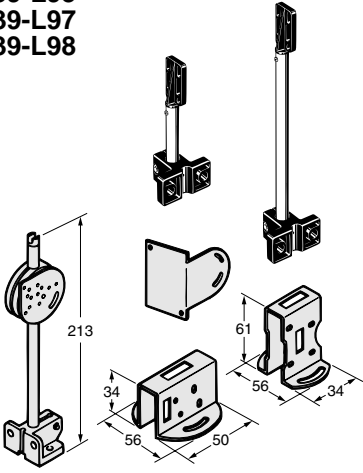
Classified According to Application

Red light Infrared light

Application	Appearance	Features	Sensing method	Sensing distance		Model
Environment resistance (built-in amplifier)	E3HQ 	Teflon*-covered for excellent resistance to chemicals. * Teflon is a registered trademark of the Dupont Company and the Mitsui Dupont Chemical Company for their fluoride resin.	Through-beam	 800 mm		E3HQ-CT1□
Application	Appearance	Features	Sensing method	Sensing distance		Model
PCB Sensors	E3S-LS3 <i>NEW</i> 	Stable detection even for black PCBs.	Convergent reflective	 20 to 35 mm		E3S-LS3N
				 10 to 60 mm		E3S-LS3NW
				 30±5 mm		E3S-LS3C1D
						E3S-LS3RC4
Application	Appearance	Features	Connection method	Number of optical axes	Sensing distance	Model NPN output
Grooved-type Photoelectric Sensors	E3Z-G 	<ul style="list-style-type: none"> Grooved design eliminates the need for optical axis adjustment. Two-axis models also available. 	Pre-wired (0.5/2 m)	1	 25 mm	E3Z-G61
			Junction connector			E3Z-G61-M3J
			Pre-wired (0.5/2 m)	2		E3Z-G62
			Pre-wired (0.5/2 m)			E3Z-G62-M3J
Application	Appearance	Features	Connection method	Output	Output configuration	Model
UV Power Monitors	F3UV-XW  F3UV-XA 	<ul style="list-style-type: none"> Fiber Head withstands temperatures of up to 300 °C/150 °C. Harmful UV light is converted to visible light (when F3UV-HM/HT is used). Easy-to-read digital display of measurement values (with F3UV-XW models). Light monitored by amplifier via optical fiber cable. Fiber Unit required separately. 	Pre-wired	<ul style="list-style-type: none"> Judgement output Answer-back output Analog output 	NPN output	F3UV-XW11
					PNP output	F3UV-XW41
				<ul style="list-style-type: none"> Analog voltage output 	—	F3UV-XA
	Appearance	Features	Intensity range of incident light	Output	Model	
UV Power Monitors	F3UV-A 	<ul style="list-style-type: none"> Built-in amplifier Deterioration due to UV light prevented by protective structure. Confirm the output status of the UV light source with an operation indicator. 	1 to 30 mW/cm ²	Analog voltage output	F3UV-A30	
			0.2 to 3 mW/cm ²		F3UV-A03	

Selection Guide

■ Photoelectric Sensors
 Classified According to Product Model
 Accessories

Name	Appearance	Features	Model
Sensor Adjustor	<p>E39-L150 <i>NEW</i> E39-L151 <i>NEW</i> E39-L93 E39-L97 E39-L98</p> 	<p>Reliable sensor attachments that are easily mounted and easily adjusted.</p>	E39-L150
Mounting Attachment for E39-R1			E39-L151
Vertical Protective Sensor Cover			E39-L93
Horizontal Protective Sensor Cover			E39-L96
			E39-L97
			E39-L98