

Discontinuation Notice of AC/DC free type E3JK series (For China-Taiwan area only).

Product Discontinuation

Built-in Power Supply Photoelectric Sensor

Model E3JK-5□□□-N(-US)
Model E3JK-DS30□□(-US)
Model E3JK-R2□□(-□)
Model E3JK-R4□□(-US)



Recommended Replacement

Built-in Power Supply Photoelectric Sensor

Model E3JK-TR12-C
Model E3JK-DR12-C
Model E3JK-RR12-C
Model E3JK-RR11-C

[Discontinuation date]

The end of March, 2015

[Caution on recommended replacement]

- 1) Models for Through-beam Sensors E3JK-5□□□-N(-US) are for sets (both the Emitter and Receiver). Must replace the sets. The sensor can't work if replace Emitter or Receiver Separately.
- 2) Recommended 24 V Power supply voltage when use replacement models.
- 3) Other notice are as below:

Item	Product discontinuation From	Recommended replacement To
Light source	E3JK-5□□□-N/DS30□□: Infrared LED (950 nm) E3JK-R□□□: Red LED (660 nm)	E3JK-TR12/DR12/RR11/RR12-C: Red LED (624 nm)
Control output	<ul style="list-style-type: none"> • E3JK-5S3-N/DS30S3/R2/4S3: DC SSR output, Negative: common 48 VDC, 100 mA max. Leakage current: 0.1 mA max. • E3JK-R2H1/2-G: NPN, PNP, Open collector 40 VDC 100 mA max. Residual voltage 1 V max. Load short circuit protection function 	E3JK-TR12/DR12/RR11/RR12-C: Relay output SPDT, 250 VAC, 3 A max. (cosφ=1), 5 VDC, 10 mA min.
Operation mode	<ul style="list-style-type: none"> • Sensitivity adjustment E3JK-5□□□-N(-US)/R□□□(-US): None • Light-ON/Dark-ON adjustment E3JK-□□□1: Light-ON E3JK-□□□2: Dark-ON E3JK-□□□3: Light-ON/Dark-ON select by wire 	<ul style="list-style-type: none"> • Sensitivity adjustment One-turn adjuster • Light-ON/Dark-ON adjustment Light-ON/Dark-ON select by switch
Response time	<ul style="list-style-type: none"> • E3JK-5M□□-N/DS30M□/R□M□: 30 ms max. • E3JK-5S3-N: 10 ms max. • E3JK-DS30S□/ R□S□: 5 ms max. • E3JK-R2H1/2-G: 3 ms max. 	E3JK-TR12/DR12/RR11/RR12-C: 20 ms max.
Cable length	With 2M and 5M models	E3JK-TR12/DR12/RR11/RR12-C: Only 2M models * About 5M models, please ask salesman.
Safety spec	E3JK-□□□-US: With UL mark	Without UL mark

[Difference from discontinued product]

Recommended replacement Model	Body Color	Dimensions	Wire connection	Mounting Dimensions	Characteristics	Operation ratings	Operation methods
E3JK-TR12-C	--	*	*	**	*	*	*
E3JK-DR12-C	--	*	*	**	*	*	*
E3JK-RR12-C	--	*	*	**	*	*	*
E3JK-RR11-C	--	*	*	**	*	*	*



- ** : Compatible
- * : The change is a little/Almost compatible
- : Not compatible
- : No corresponding specification

[Product Discontinuation and recommended replacement]

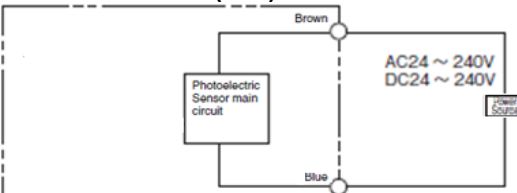
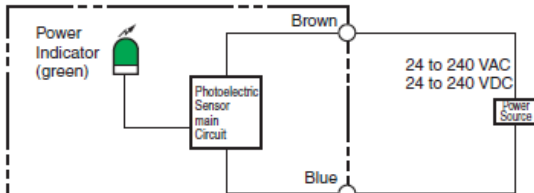
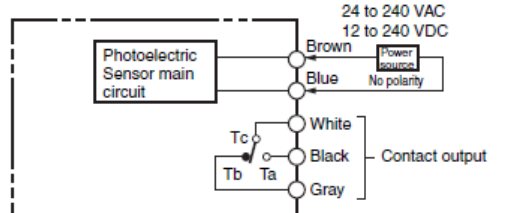
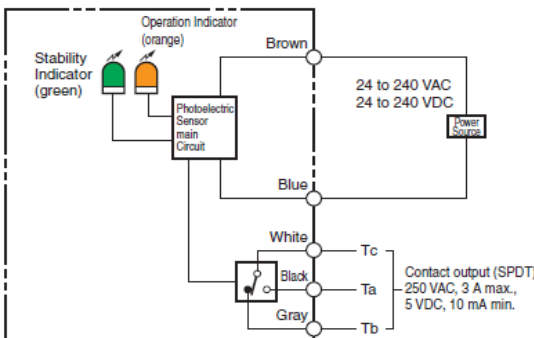
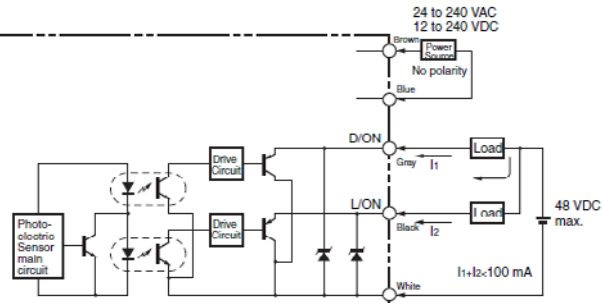
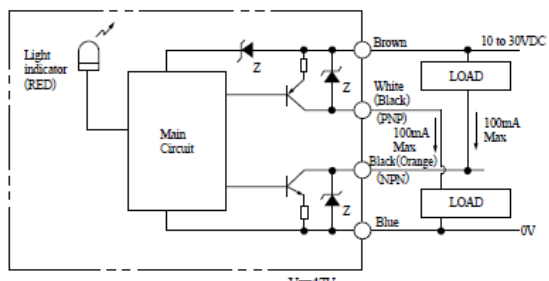
Product discontinuation	Recommended replacement
E3JK-R2R3 2M	E3JK-RR12-C 2M *4*5*6
E3JK-R4S3 2M	E3JK-RR11-C 2M *4*5*6
E3JK-R4M2-US	E3JK-RR11-C 2M *2*4*6
E3JK-R4M2 5M	E3JK-RR11-C 2M *1*4*6
E3JK-R4M2 2M	E3JK-RR11-C 2M *4*6
E3JK-R4M1 2M	E3JK-RR11-C 2M *4*6
E3JK-R2S3 2M	E3JK-RR12-C 2M *4*5*6
E3JK-R2M2 5M	E3JK-RR12-C 2M *1*4*6
E3JK-R2M2 2M	E3JK-RR12-C 2M *4*6
E3JK-R2M1 2M	E3JK-RR12-C 2M *4*6
E3JK-R2H2-G 2M	E3JK-RR12-C 2M *4*5*6
E3JK-R2H1-G 2M	E3JK-RR12-C 2M *4*5*6
E3JK-DS30S3 2M	E3JK-DR12-C 2M *3*4*5*6
E3JK-DS30M2 2M	E3JK-DR12-C 2M *3*4*6
E3JK-DS30M1-US 2M	E3JK-DR12-C 2M *2*3*4*6
E3JK-DS30M1 5M	E3JK-DR12-C 2M *1*3*4*6
E3JK-DS30M1 2M	E3JK-DR12-C 2M *3*4*6
E3JK-5S3-N 2M	E3JK-TR12-C 2M *3*4*5*6
E3JK-5M2-N-US 2M	E3JK-TR12-C 2M *2 *3*4*6
E3JK-5M2-N 5M	E3JK-TR12-C 2M *1*3*4*6
E3JK-5M2-N 2M	E3JK-TR12-C 2M *3*4*6
E3JK-5M1-N-US 2M	E3JK-TR12-C 2M *2*3*4*6
E3JK-5M1-N 5M	E3JK-TR12-C 2M *1*3*4*6
E3JK-5M1-N 2M	E3JK-TR12-C 2M *3*4*6
E3JK-5M1-1-N 5M	E3JK-TR12-C 2M *1*3*4*6
E3JK-5M1-1-N 10M	E3JK-TR12-C 2M *1*3*4*6
E3JK-5L-N 2M	E3JK-TR12-C 2M *3*4*6
E3JK-5DM2-N 2M	E3JK-TR12-C 2M *3*4*6

- *1. Cable length is different.
- *2. Without UL.
- *3. Light source (LED) is different.
- *4. Response time is different.
- *5. Control output is different.
- *6. Operation mode is different.

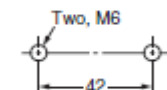
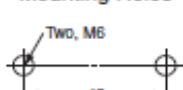
[Body color]

<p>Product discontinuation Model E3JK-5□□□-N(-US) Model E3JK-DS30□□(-US) Model E3JK-R2□□(-□) Model E3JK-R4□□(-US)</p>	<p>Recommendable replacement Model E3JK-TR12-C Model E3JK-DR12-C Model E3JK-RR12-C Model E3JK-RR11-C</p>
<p>Case: Light grey</p> 	<p>Case: Black</p> 

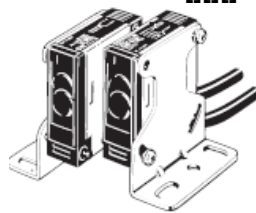
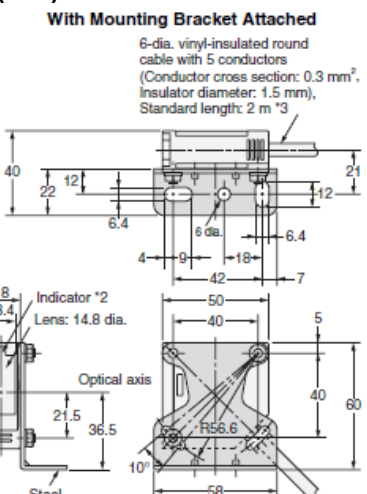
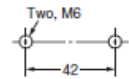
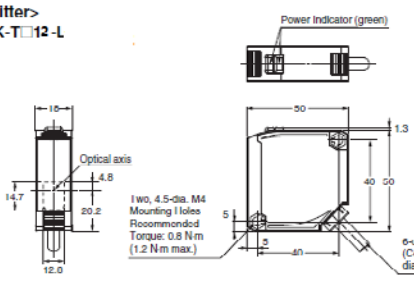
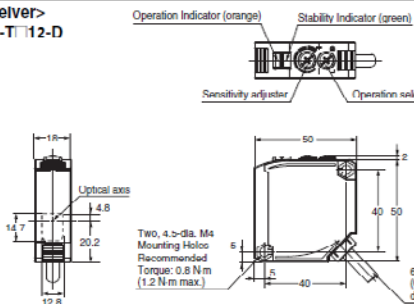
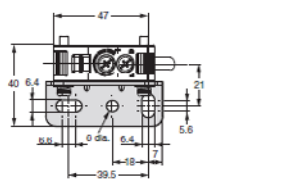
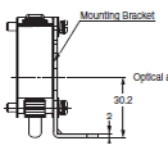
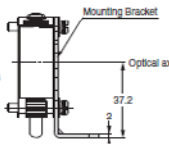
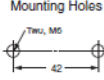
[Wire connection]

<p>Product discontinuation Model E3JK-5□□□-N(-US) Model E3JK-DS30□□(-US) Model E3JK-R2□□(-□) Model E3JK-R4□□(-US)</p>	<p>Recommendable replacement Model E3JK-TR12-C Model E3JK-DR12-C Model E3JK-RR12-C Model E3JK-RR11-C</p>
<p>Model E3JK-5L-N(-US)</p> 	<p>Model E3JK-TR12-L-C</p> 
<p>Model E3JK-5M□-N/DS30M□/R□M□(-US)</p>  <p>(Built-in Relay: G6C)</p>	<p>Model E3JK-TR12-D-C Model E3JK-DR12-C Model E3JK-RR12-C Model E3JK-RR11-C</p>  <p>Contact output (SPDT), 250 VAC, 3 A max., 5 VDC, 10 mA min.</p>
<p>Model E3JK-5S3-N/DS30S3/R4S3</p>  <p>Note: The output stage leakage currents are 0.1 mA max., respectively.</p>	
<p>Model E3JK-R2H1/2-G</p>  <p>Vz=47V</p>	

[Mounting dimensions]

<p>Product discontinuation Model E3JK-5□□□-N(-US) Model E3JK-DS30□□(-US) Model E3JK-R2□□(-□) Model E3JK-R4□□(-US)</p>	<p>Recommendable replacement Model E3JK-TR12-C Model E3JK-DR12-C Model E3JK-RR12-C Model E3JK-RR11-C</p>
<p>Mounting Holes</p> 	<p>Mounting Holes</p> 

[Dimensions]

<p>Product discontinuation Model E3JK-5□□□-N(-US) Model E3JK-DS30□□(-US) Model E3JK-R2□□(-□) Model E3JK-R4□□(-US)</p>	<p>Recommendable replacement Model E3JK-TR12-C Model E3JK-DR12-C Model E3JK-RR12-C Model E3JK-RR11-C</p>
<p>Model E3JK-5□□□-N(-US)</p>  <p>With Mounting Bracket Attached</p> <p>6-dia. vinyl-insulated round cable with 5 conductors (Conductor cross section: 0.3 mm², Insulator diameter: 1.5 mm), Standard length: 2 m *3</p>  <p>Mounting Holes</p>  <p>*1. Mounting Brackets can be used on the A side (M4 × 20 screws: 2 sets provided) *2. Emitter: Power indicator Receiver: Light indicator *3. The Emitter has two conductors.</p>	<p>Model E3JK-TR12-C</p> <p><Emitter> E3JK-T□12-L</p>  <p><Receiver> E3JK-T□12-D</p>  <p>With Mounting Bracket Attached</p>  <p>Through-beam</p>  <p>Diffuse-reflective/Retro-reflective</p>  <p>Mounting Holes</p> 

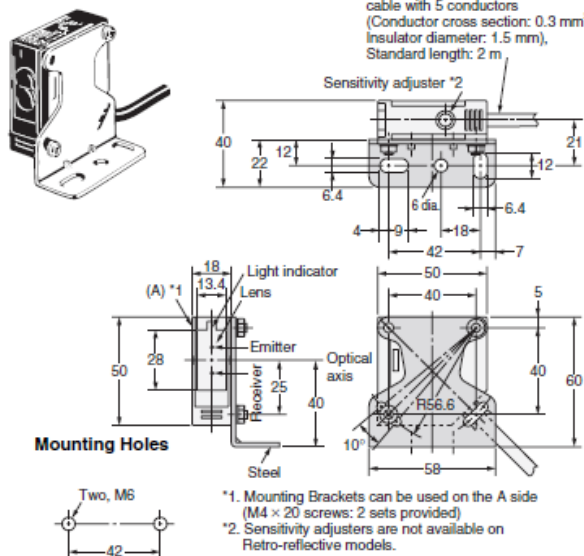
Product discontinuation
Model E3JK-5□□□-N(-US)
Model E3JK-DS30□□(-US)
Model E3JK-R2□□(-□)
Model E3JK-R4□□(-US)

Recommendable replacement
Model E3JK-TR12-C
Model E3JK-DR12-C
Model E3JK-RR12-C
Model E3JK-RR11-C

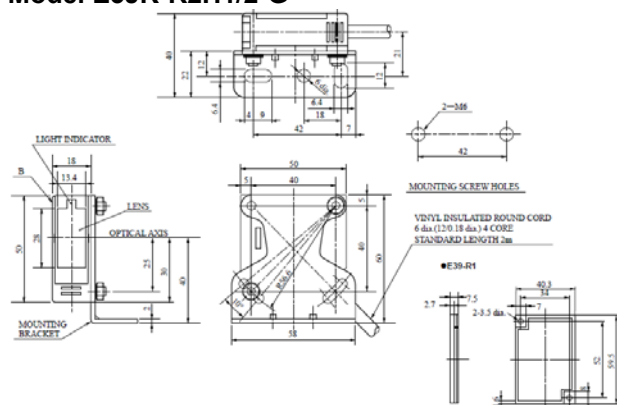
E3JK-R2□□
E3JK-R4□□
E3JK-DS30□□

With Mounting Bracket Attached

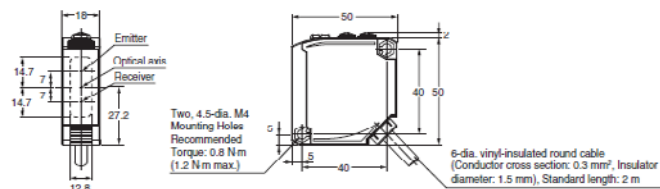
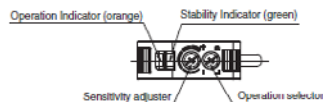
6-dia. vinyl-insulated round cable with 5 conductors (Conductor cross section: 0.3 mm², insulator diameter: 1.5 mm), Standard length: 2 m.



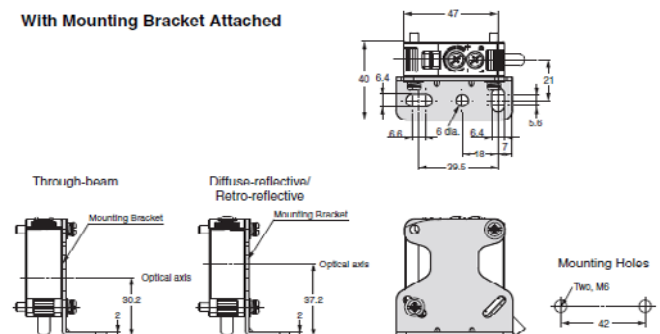
Model E3JK-R2H1/2-G



Model E3JK-DR12-C
Model E3JK-RR12-C
Model E3JK-RR11-C



With Mounting Bracket Attached



[Characteristics]

Item		Product discontinuation Model E3JK-5□□□-N(-US)	Recommendable replacement Model E3JK-TR12-C
Sensing distance		5 m	5 m
Standard sensing object		Opaque: 14.8-mm dia. min.	Opaque: 17-mm dia. min.
Directional angle		Both Emitter and Receiver 3° to 20°	Both Emitter and Receiver 3° min.
Light source (wavelength)		Infrared LED (950 nm)	Red LED (624 nm)
Power supply voltage		12 to 240 VDC±10%, ripple (p-p): 10% max. 24 to 240 VAC±10%, 50/60 Hz	24 to 240 VDC±10%, ripple (p-p): 10% max. 24 to 240 VAC±10%, 50/60 Hz
Power consumption	DC	3 W max. (Emitter 1.5 W max. Receiver 1.5 W max.)	3 W max. (Emitter 1.5 W max. Receiver 1.5 W max.)
	AC	3 W max. (Emitter 1.5 W max. Receiver 1.5 W max.)	3 W max. (Emitter 1.5 W max. Receiver 1.5 W max.)
Control output		5M□-N: Relay output SPDT, 250 VAC, 3 A max. (cosφ= 1) 5 VDC, 10 mA min. 5S3-N: DC SSR output, Negative: common 48 VDC, 100 mA max. Leakage current: 0.1 mA max. With load short-circuit protection	Relay output SPDT, 250 VAC, 3A max. (cosφ= 1), 5 VDC, 10 mA min., Light-ON/Dark-ON selectable
Response time		5M□-N: 30 ms max. 5S3-N: 10 ms max.	20 ms max.
Sensitivity adjustment		None	One-turn adjuster Receiver (E3JK-T□□□-D) only
Ambient illumination (Receiver side)		Incandescent lamp: 3,000 lx max.	Incandescent lamp: 3,000 lx max., Sunlight: 11,000 lx max.
Ambient temperature range		Operating: -25°C to 55°C, Storage: -30°C to 70°C (with no icing or condensation)	Operating: -25°C to 55°C, Storage: -40°C to 70°C (with no icing or condensation)
Ambient humidity range		Operating: 45% to 85% (with no condensation), Storage: 35% to 95% (with no condensation)	Operating: 35% to 85%, Storage: 35% to 95% (with no condensation)
Insulation resistance		20 MΩ min. at 500 VDC	20 MΩ min. at 500 VDC
Shock resistance	Destruction	500 m/s ² 3 times each in X, Y, and Z directions	500m/s ² for 3 times each in X, Y, and Z directions
	Malfunction	5M□-N: 100 m/s ² 3 times each in X, Y, and Z directions 5S3-N: 500 m/s ² 3 times each in X, Y, and Z directions	100 m/s ² for 3 times each in X, Y, and Z directions
Degree of protection		IEC 60529 IP64	IEC 60529 IP64
Accessories		Mounting Bracket (with screws), Nuts, Instruction manual	Mounting Bracket (with screws), Nuts, Instruction manual

Item		Product discontinuation Model E3JK-DS30□□(-US)	Recommendable replacement Model E3JK-DR12-C
Sensing distance		White paper (100 × 100 mm): 300 mm	White paper (100 × 100 mm): 300 mm
Light source (wavelength)		Infrared LED (950 nm)	Red LED (624 nm)
Power supply voltage		12 to 240 VDC±10%, ripple (p-p): 10% max. 24 to 240 VAC±10%, 50/60 Hz	24 to 240 VDC±10%, ripple (p-p): 10% max. 24 to 240 VAC±10%, 50/60 Hz
Power consumption	DC	2 W max.	2 W max.
	AC	2 W max.	2 W max.
Control output		DS30M□: Relay output SPDT, 250 VAC, 3 A max. (cosφ= 1) 5 VDC, 10 mA min. DS30S3: DC SSR output, Negative: common 48 VDC, 100 mA max. Leakage current: 0.1 mA max. With load short-circuit protection	Relay output SPDT, 250 VAC, 3 A max. (cosφ= 1), 5 VDC, 10 mA min., Light-ON/Dark-ON selectable
Response time		DS30M□: 30 ms max. DS30S3: 5 ms max.	20 ms max.
Sensitivity adjustment		One-turn adjuster	One-turn adjuster
Ambient illumination (Receiver side)		Incandescent lamp: 3,000 lx max.	Incandescent lamp: 3,000 lx max., Sunlight: 11,000 lx max.
Ambient temperature range		Operating: -25°C to 55°C, Storage: -30°C to 70°C (with no icing or condensation)	Operating: 25°C to 55°C, Storage: -40°C to +70°C (with no icing or condensation)
Ambient humidity range		Operating: 45% to 85% (with no condensation), Storage: 35% to 95% (with no condensation)	Operating: 35% to 85%, Storage: 35% to 95% (with no condensation)
Insulation resistance		20 MΩ min. at 500 VDC	20 MΩ min. at 500 VDC
Shock resistance	Destruction	500 m/s ² 3 times each in X, Y, and Z directions	500 m/s ² for 3 times each in X, Y, and Z directions
	Malfunction	DS30M□: 100m/s ² 3times each in X, Y, and Z directions DS30S3: 500 m/s ² 3times each in X, Y, and Z directions	100m/s ² for 3 times each in X, Y, and Z directions
Degree of protection		IEC 60529 IP64	IEC 60529 IP64
Accessories		Mounting Bracket (with screws), Nuts, Instruction manual	Mounting Bracket (with screws), Nuts, Instruction manual

Item		Product discontinuation Model E3JK-R2□□(-□) Model E3JK-R4□□(-US)	Recommendable replacement Model E3JK-RR12-C Model E3JK-RR11-C
Sensing distance		R2□□(-□): 2.5 m (When using E39-R1) R4□□: 4 m (When using E39-R1)	RR12: 6 m [100 mm] (When using E39-R1) RR11: 7 m [100 mm] (When using E39-R1)
Directional angle		1° to 5°	1.5° min.
Light source (wavelength)		Red LED (660 nm)	Red LED (624 nm)
Power supply voltage		12 to 240 VDC±10%, ripple (p-p): 10% max. 24 to 240 VAC±10%, 50/60 Hz	24 to 240 VDC±10%, ripple (p-p): 10% max. 24 to 240 VAC±10%, 50/60 Hz
Power consumption	DC	2 W max.	2 W max.
	AC	2 W max.	2 W max.
Control output		R2/4M□: Relay output SPDT, 250 VAC, 3 A max. (cosφ=1) 5 VDC, 10 mA min. R2/4S3: DC SSR output, Negative: common 48 VDC, 100 mA max. Leakage current: 0.1 mA max. With load short-circuit protection R2H1/2-G: NPN, PNP, Open collector 40 VDC 100mA max. Residual voltage 1 V max. Load short circuit protection function H1-G: Light-ON, H2-G: Dark-ON	Relay output SPDT, 250 VAC, 3 A max. (cosφ=1), 5 VDC, 10 mA min., Light-ON/Dark-ON selectable
Response time		R2/4M□: 30 ms max. R2/4S3: 5 ms max. R2H1/2-G: 3 ms max.	20 ms max.
Sensitivity adjustment		None	One-turn adjuster
Ambient illumination (Receiver side)		Incandescent lamp: 3,000 lx max.	Incandescent lamp: 3,000 lx max., Sunlight: 11,000 lx max.
Ambient temperature range		Operating: -25°C to 55°C, Storage: -30°C to 70°C (with no icing or condensation)	Operating: -25°C to 55°C, Storage: -40°C to 70°C (with no icing or condensation)
Ambient humidity range		Operating: 45% to 85% (with no condensation), Storage: 35% to 95% (with no condensation)	Operating: 35% to 85%, Storage: 35% to 95% (with no condensation)
Insulation resistance		20 MΩ min. at 500 VDC	20 MΩ min. at 500 VDC
Shock resistance	Destruction	500 m/s ² 3 times each in X, Y, and Z directions	500 m/s ² for 3 times each in X, Y, and Z directions
	Malfunction	R2/4M□: 100m/s ² 3 times each in X, Y, and Z directions R2/4S3: 500 m/s ² 3 times each in X, Y, and Z directions	100 m/s ² for 3 times each in X, Y, and Z directions
Degree of protection		IEC 60529 IP64	IEC 60529 IP64
Accessories		Mounting Bracket (with screws), Nuts, Instruction manual, Reflector	Mounting Bracket (with screws), Nuts, Instruction manual, Reflector

[Operation ratings]

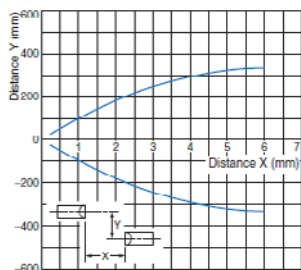
Product discontinuation
Model E3JK-5□□□-N(-US)
Model E3JK-DS30□□(-US)
Model E3JK-R2□□(-□)
Model E3JK-R4□□(-US)

Recommendable replacement
Model E3JK-TR12-C
Model E3JK-DR12-C
Model E3JK-RR12-C
Model E3JK-RR11-C

Parallel Operating Range

Through-beam

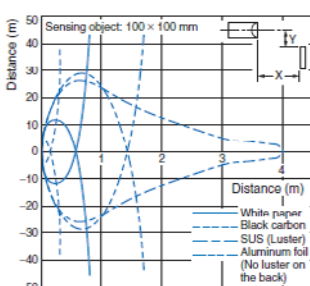
E3JK-5□□□-N



Operating Range

Diffuse-reflective

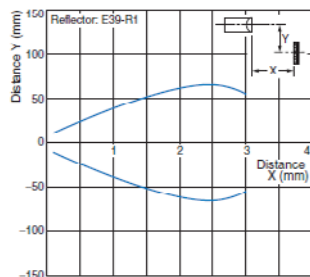
E3JK-DS30□□



Retro-reflective

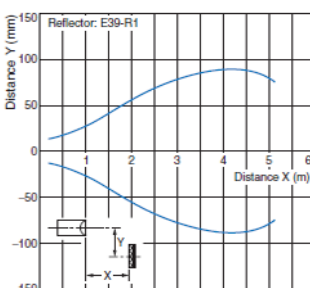
E3JK-R2□□ + E39-R1

(Supplied Reflector)



E3JK-R4□□ + E39-R1

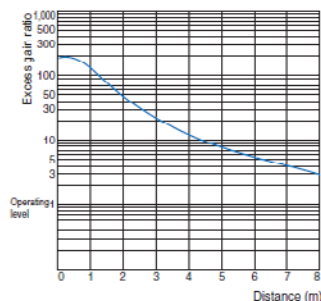
(Supplied Reflector)



Excess Gain Ratio vs. Set Distance

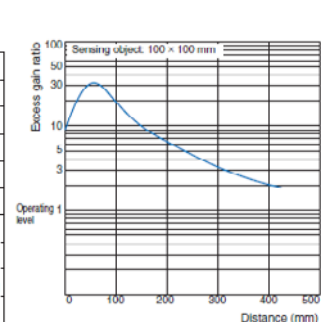
Through-beam

E3JK-5□□□-N



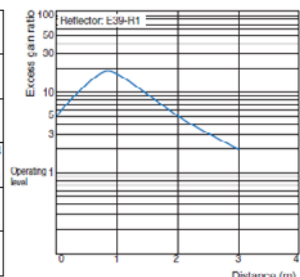
Diffuse-reflective

E3JK-DS30□□



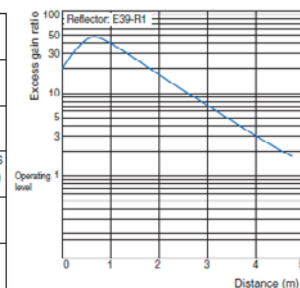
Retro-reflective

E3JK-R2□□ + E39-R1 (Supplied Reflector)



E3JK-R4□□ + E39-R1

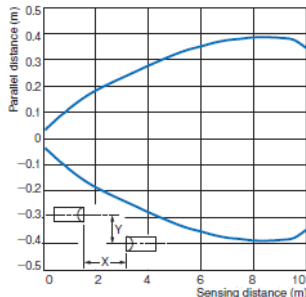
(Supplied Reflector)



Parallel Operating Range

Through-beam

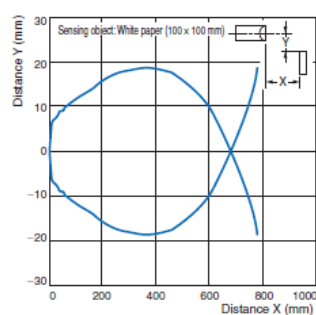
E3JK-T□□12



Operating Range

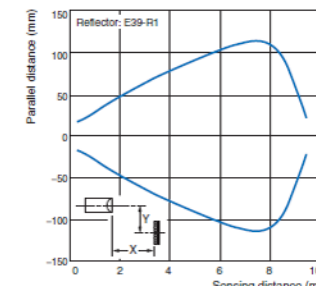
Diffuse-reflective

E3JK-D□□12



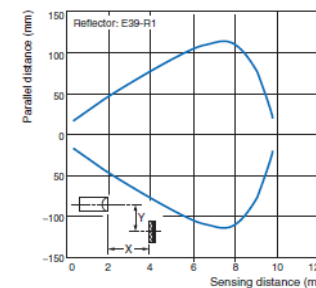
Retro-reflective

E3JK-R□□12+E39-R1



Retro-reflective

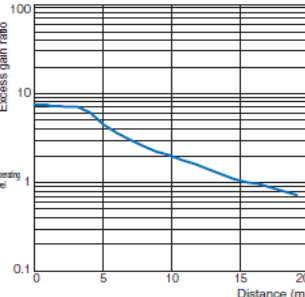
E3JK-R□□11+E39-R1



Excess Gain Ratio vs. Set Distance

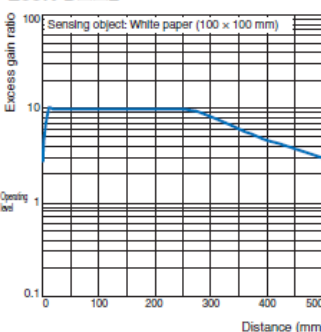
Through-beam

E3JK-T□□12



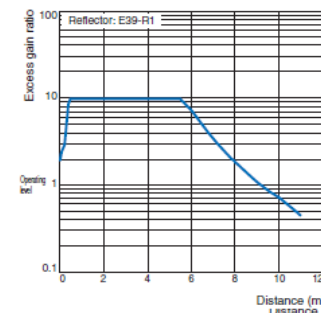
Diffuse-reflective

E3JK-D□□12



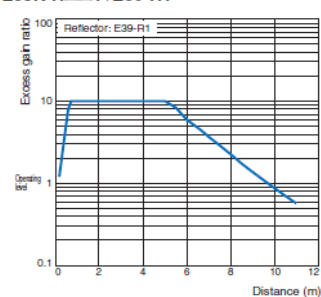
Retro-reflective

E3JK-R□□12+E39-R1



Retro-reflective

E3JK-R□□11+E39-R1



[Operation methods]

<p>Product discontinuation Model E3JK-5□□□-N(-US) Model E3JK-DS30□□(-US) Model E3JK-R2□□(-□) Model E3JK-R4□□(-US)</p>	<p>Recommendable replacement Model E3JK-TR12-C Model E3JK-DR12-C Model E3JK-RR12-C Model E3JK-RR11-C</p>
<p>Sensitivity adjustment E3JK-DS30□□(-US)/D□□1: One-turn adjuster E3JK-5□□□-N(-US)/R□□□(-US): None</p> <p>Operation mode E3JK-□□□1: Light-ON E3JK-□□□2: Dark-ON E3JK-□□□3: Light-ON/Dark-ON select by wire</p>	<p>Sensitivity adjustment One-turn adjuster</p> <p>Operation mode Light-ON/Dark-ON select by switch</p>

Specifications and prices in this product news are as of the issue date and are subject to change without notice. Only main changes in specifications are described in this document. Please be sure to read the relevant catalogs, datasheets, product specifications, instructions, and manuals for precautions and necessary information when using products.