PRODUCT NEWS

Product Discontinuation Notices

Photoelectric Sensors

OMRON

Issue Date
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No. 2013023CE

Discontinuation Notice of PCB Sensors Model E3S-LS3C1D 2M / E3S-LS3RC4 2M.

Product Discontinuation	Recommended Replacement
PCB Sensors	PCB Sensors
Model E3S-LS3C1D 2M **Model E3S-LS3RC4 2M**	**Model E3S-LS3NT 2M** **Model E3S-LS3N 2M** **Model E3S-LS3N-1 2M**

[Discontinuation date]

The end of March, 2014

[Caution on recommended replacement]

When you change "Model E3S-LS3C1D 2M", the source of light is changed from infrared LED to red LED.
When you change "Model E3S-LS3C1D 2M", the power supply voltage is changed.
When you change "Model E3S-LS3RC4 2M", the sensitivity adjustment function disappears.
When you change "Model E3S-LS3RC4 2M", the light indicator is changed in operation indicator.
When you change "Model E3S-LS3RC4 2M", please use the operating mode after confirmation.
The recommended replacement varies according to an operation mode.

[Difference from discontinued product]

Recommended replacement Model	Body Color	Dimen -sions	Wire connection	Mounting Dimensions	Charact -eristics	Operation ratings	Operation methods
Model E3S-LS3NT 2M	*	*	*	**	*	*	*
Model E3S-LS3N 2M	*	*	*	**	*	*	*
Model E3S-LS3N-1 2M	*	*	*	**	*	*	*

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

[Product Discontinuation and recommended replacement]

Product discontinuation	Recommended replacement
Model E3S-LS3C1D 2M	Model E3S-LS3NT 2M
Model E3S-LS3RC4 2M	Model E3S-LS3N 2M
	Model E3S-LS3N-1 2M

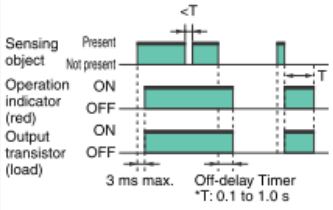
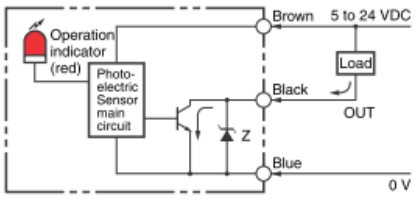
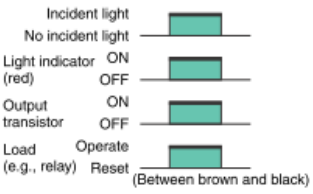
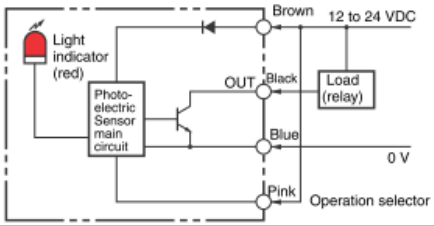
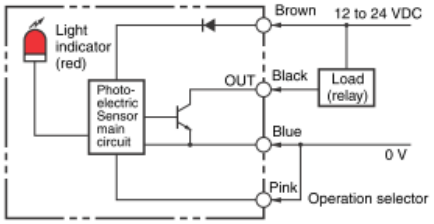
[Body color]

Product discontinuation Model E3S-LS3C1D 2M Model E3S-LS3RC4 2M	Recommendable replacement Model E3S-LS3NT 2M Model E3S-LS3N 2M Model E3S-LS3N-1 2M
Black	

[Wire connection]

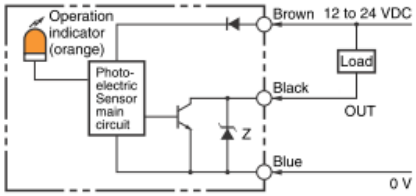
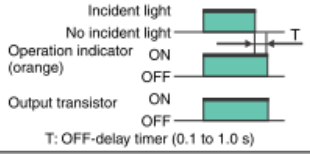
Product discontinuation
Model E3S-LS3C1D 2M
Model E3S-LS3RC4 2M

Model E3S-LS3C1D 2M
Model E3S-LS3RC4 2M

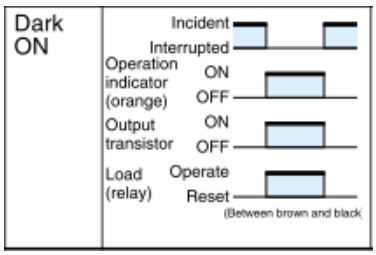
Output configuration	Model	Operating status of output transistor	Timing charts	Operating status	Output circuit
NPN output	E3S-LS3C1D	Light-ON		---	
	E3S-LS3RC4			Short pink wire to brown wire.	
		Dark-ON		Short pink wire to blue wire or leave pink wire open.	

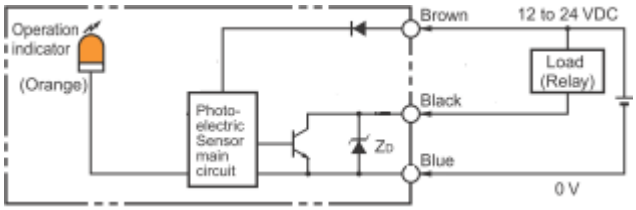
Recommendable replacement
Model E3S-LS3NT 2M
Model E3S-LS3N 2M
Model E3S-LS3N-1 2M

Model E3S-LS3NT 2M
Model E3S-LS3N 2M

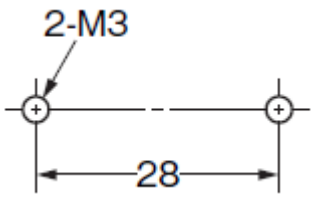
Model	Operation mode	Timing charts	Output circuit
E3S-LS3N	Light-ON		
E3S-LS3NT	Light-ON		

Model E3S-LS3N-1 2M





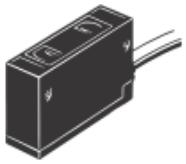
[Mounting dimensions]

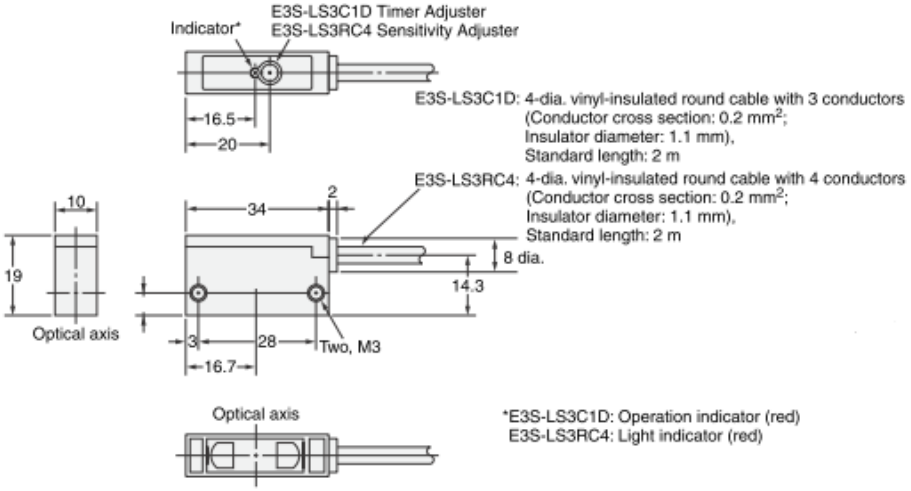
Product discontinuation Model E3S-LS3C1D 2M Model E3S-LS3RC4 2M	Recommendable replacement Model E3S-LS3NT 2M Model E3S-LS3N 2M Model E3S-LS3N-1 2M
Model E3S-LS3C1D 2M **Model E3S-LS3RC4 2M** 	**Model E3S-LS3NT 2M** **Model E3S-LS3N 2M** **Model E3S-LS3N-1 2M** 

[Dimensions]

Product discontinuation
Model E3S-LS3C1D 2M
Model E3S-LS3RC4 2M

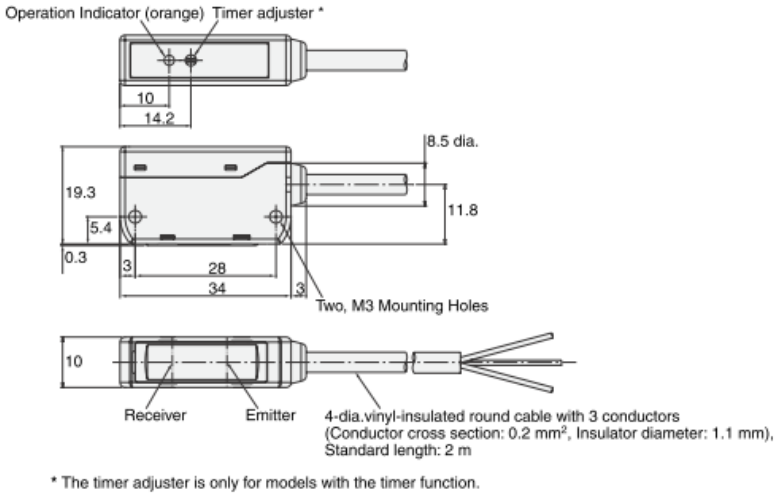
Model E3S-LS3C1D 2M
Model E3S-LS3RC4 2M





Recommendable replacement
Model E3S-LS3NT 2M
Model E3S-LS3N 2M
Model E3S-LS3N-1 2M

Model E3S-LS3NT 2M
Model E3S-LS3N 2M
Model E3S-LS3N-1 2M



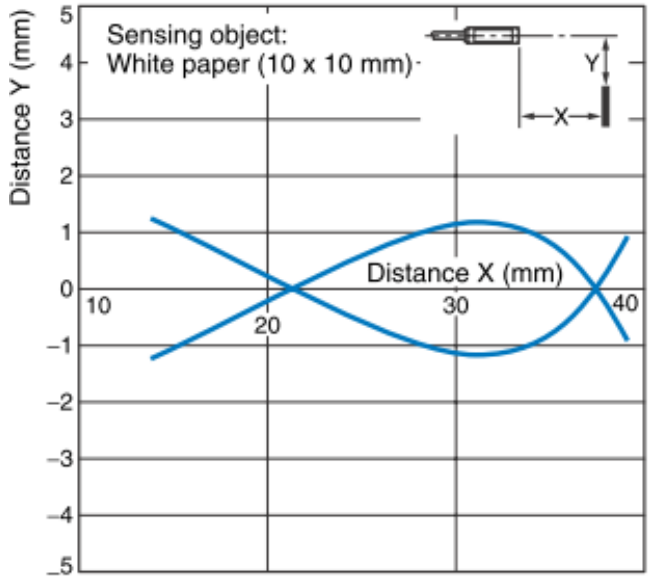
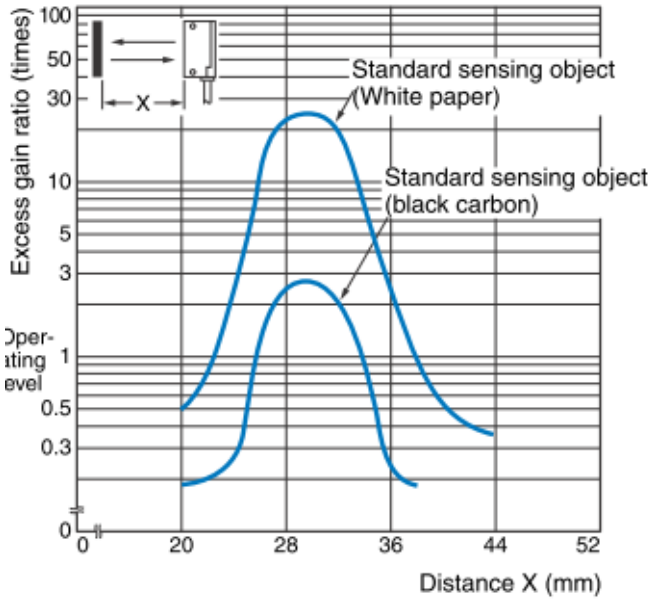
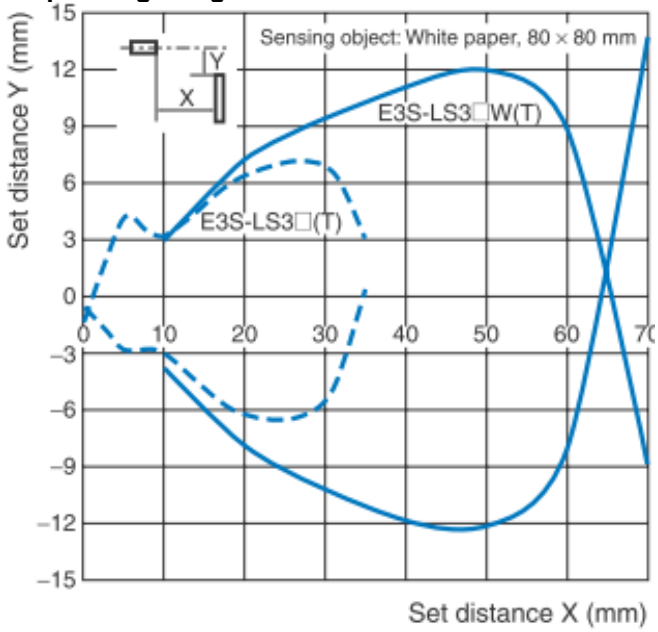
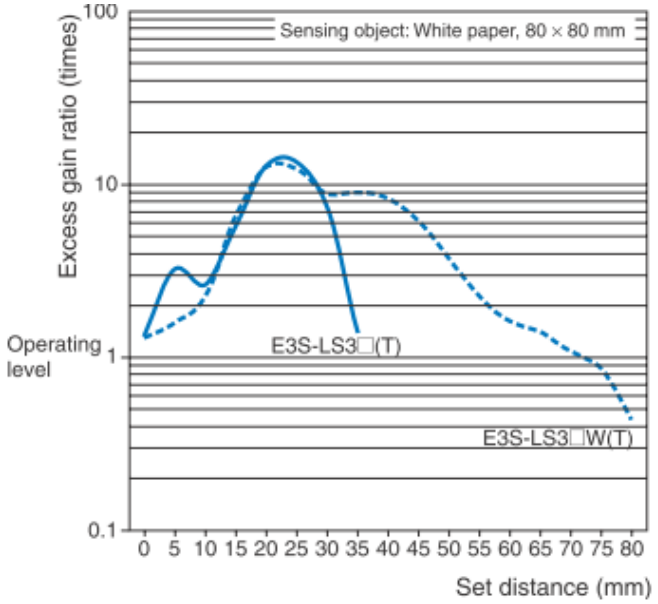
* The timer adjuster is only for models with the timer function.

[Characteristics]

Item	Product discontinuation	Recommendable replacement
	Model E3S-LS3C1D 2M	**Model E3S-LS3NT 2M**
Sensing method	Convergent-reflective	
Sensing distance	30 ±5 mm (white paper 10 × 10 mm)	20 to 35 mm (white paper 80 × 80 mm)
Light source (wavelength)	Infrared LED (890 nm)	Red LED (660 nm)
Power supply voltage	5 to 24 VDC ±10%, ripple (p-p) 10% max.	12 to 24 VDC ±10%, ripple (p-p) 10% max.
Current consumption	40 mA max.	25 mA max.
Control output	Load power supply voltage: 24 VDC max. Load currnet: 30 mA max. (Residual voltage: 1 V max.) NPN open collector output	Load power supply voltage: 24 VDC max. Load currnet: 100 mA max. (Residual voltage: 1 V max.) NPN open collector output
Operating mode	Light-on	
Response time	Operate: 3 ms max. Reset: 100 ms max.	Operate: 1 ms max. Reset: 1 ms max.
Timer function	OFF-delay range: 0.1 to 1.0 s (adjustable)	
Ambient illumination (receiver side)	Incandescent lamp: 1,000 lx max. Sunlight: 3,000 lx max.	Incandescent lamp: 5,000 lx max.
Ambient temperature	Operating: -10 to 55°C (with no icing or condensation) Storage: -25 to 70°C (with no icing or condensation)	
Ambient humidity	Operating: 35 % to 85% (with no icing or condensation) Storage: 35% to 95% (with no icing or condensation)	
Insulation resistance	20 MΩ min.(at 500 VDC)	
Dielectric strength	1,000 VAC at 50/60 Hz for 1 minute	
Vibration resistance (destruction)	10 to 55 Hz with a 1.5-mm double amplitude for 2 h each in X, Y and Z directions	
Shock resistance (destruction)	500 m/s^2, 10 times each in X, Y and Z directions	500 m/s^2, 3 times each in X, Y and Z directions
Degree of protection	IEC IP 40	
Connection method	Pre-wired (standard length: 2 m)	
Indicating lamp	Operation indicator (red)	Operation indicator (orange)
Weight (packed state)	Approx. 60 g	Approx. 80 g
Materials (Case)	Heat-resistant ABS	ABS
Materials (Lens)	Polycarbonate	Methacrylic resin
Accessories	Instruction sheet	Instruction sheet, M3 screws, Adjustment screwdriver

Item	Product discontinuation	Recommendable replacement	
	Model E3S-LS3RC4 2M	Model E3S-LS3N 2M	Model E3S-LS3N-1 2M
Sensing method	Convergent-reflective		
Sensing distance	30 ±5 mm (white paper 10 × 10 mm)	20 to 35 mm (white paper 80 × 80 mm)	
Light source (wavelength)	Red LED (660 nm)		
Power supply voltage	12 to 24 VDC ±10%, ripple (p-p) 10% max.		
Current consumption	40 mA max.	25 mA max.	
Control output	Load power supply voltage: 24 VDC max. Load currnet: 50 mA max. (Residual voltage: 1 V max.) NPN open collector output	Load power supply voltage: 24 VDC max. Load currnet: 100 mA max. (Residual voltage: 1 V max.) NPN open collector output	
Operating mode	Light-on/ Dark-on	Light-on	Dark-on
Response time	Operate: 1 ms max. Reset: 1 ms max.		
Sensitivity adjustment	One-turn adjuster	—	
Ambient illumination (receiver side)	Incandescent lamp: 3,000 lx max. Sunlight: 10,000 lx max.	Incandescent lamp: 5,000 lx max.	
Ambient temperature	Operating: -10 to 55°C (with no icing or condensation) Storage: -25 to 70°C (with no icing or condensation)		
Ambient humidity	Operating: 35 % to 85% (with no icing or condensation) Storage: 35% to 95% (with no icing or condensation)		
Insulation resistance	20 MΩ min. (at 500 VDC)		
Dielectric strength	1,000 VAC at 50/60 Hz for 1 minute		
Vibration resistance (destruction)	10 to 55 Hz with a 1.5-mm double amplitude for 2 h each in X,Y and Z directions		
Shock resistance (destruction)	500 m/s^2, 3 times each in X, Y and Z directions		
Degree of protection	IEC IP 40		
Connection method	Pre-wired (standard length: 2 m)		
Indicating lamp	Light indicator (red)	Operation indicator (orange)	
Weight (packed state)	Approx. 60 g	Approx. 80 g	
Materials (Case)	Heat-resistant ABS	ABS	
Materials (Lens)	Polycarbonate	Methacrylic resin	
Accessories	Instruction sheet, M3 screws	Instruction sheet,screws (M3 × 2)	

[Operation ratings]

Product discontinuation Model E3S-LS3C1D 2M Model E3S-LS3RC4 2M	Recommendable replacement Model E3S-LS3NT 2M Model E3S-LS3N 2M Model E3S-LS3N-1 2M
Model E3S-LS3RC4 2M **< Operating Range >**  **< Excess Gain vs. Set Distance >**  	**Model E3S-LS3NT 2M** **Model E3S-LS3N 2M** **Model E3S-LS3N-1 2M** **< Operating Range >**  **< Excess Gain vs. Set Distance >** 

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