

Product Discontinuation Notices

March 1, 2011

Photoelectric Sensors

No. 2011E010

Discontinuation Notice of built-in Power Supply Photoelectric sensors E3A2 series

Product Discontinuation

Recommended Replacement



E3A2 series



**E3JM series
E3G series**

Discontinuation date : The end of March, 2013

Caution on recommended replacement

- 1) Please pay attention on indicators, the indicators are different.
- 2) Timer function will be changed. Details please refer to the timing chart.
- 3) Mounting dimensions and shapes are changed. Details please refer to the dimension drawing.

Difference from discontinued product

Model	Body Color	Dimensions	Wire connection	Mounting Dimensions	Characteristics	Operation ratings	Operation methods
E3JM series E3G series	--	--	*	--	*	*	*

** : Fully compatible

* : The change is a little/Almost compatible

-- : Not compatible

- : No corresponding specification

Product Discontinuation and recommended replacement

Product discontinuation	Recommended replacement
E3A2-DS70M4	E3JM-DS70M4-US
E3A2-DS70M4D	E3JM- DS70M4T-US
E3A2-DS70M4T	E3JM-DS70M4T-US
E3A2-DS70M4-G1	E3G-ML79-G
E3A2-DS70M4-G	E3JM-DS70M4-G
E3A2-DS70M4D-G	E3JM-DS70M4T-G
E3A2-DS70M4T-G	E3JM-DS70M4T-G
E3A2-R3M4	E3G-MR19
E3A2-R3M4-G	E3G-MR19-G
E3A2-R3M4D-G	E3G-MR19-G
E3A2-R3M4T-G1	E3G-MR19T-G
E3A2-R3M4D	E3G-MR19T
E3A2-R3M4T	E3G-MR19T
E3A2-R3M4-GN	E3G-MR19-G
E3A2-R3M4-GN1	E3G-MR19-G
E3A2-R3M4D-GN	E3G-MR19T-G
E3A2-R3M4D-GN1	E3G-MR19T-G
E3A2-R3M4D-G1-31	E3G-MR19T-G
E3A2-R3M4T-G	E3G-MR19T-G
E3A2-10M4	E3JM-10M4-US
E3A2-10M4D	E3JM-10M4T-US
E3A2-10M4T	E3JM-10M4T-US
E3A2-10M4-G	E3JM-10M4-G-N
E3A2-10M4D-G	E3JM-10M4T-G-N
E3A2-10M4T-G	E3JM-10M4T-G-N
E3A2-10L	E3JM-10L-US
E3A2-XCM4	No recommended replacement
E3A2-XCM4D	No recommended replacement
E3A2-XCM4T	No recommended replacement
E3A2-XCM4-G	No recommended replacement
E3A2-XCM4D-G	No recommended replacement
E3A2-XCM4T-G	No recommended replacement

Body color

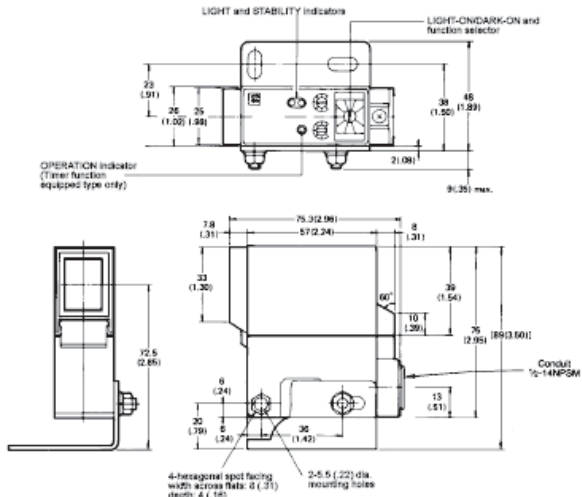
Product discontinuation	Recommendable replacement
Yellow + Black	Black

Dimensions

Product discontinuation

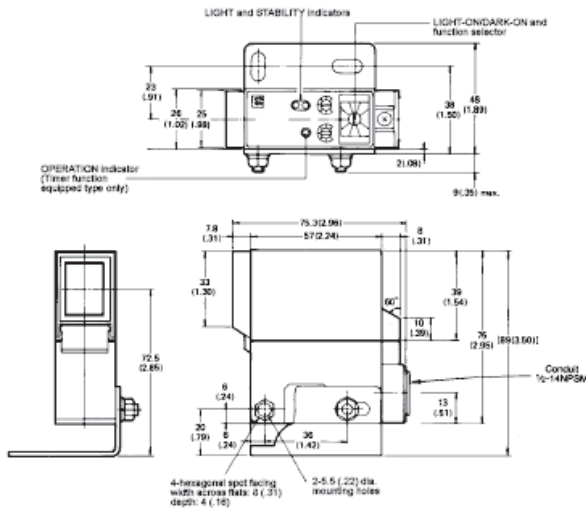
Model E3A2-DS70□□□(-G) series

Unit: mm (inch)



Model E3A2-DS70M4T-G1

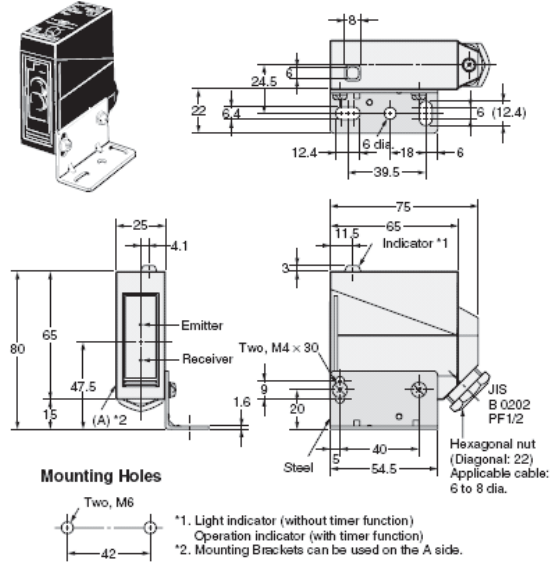
Unit: mm (inch)



Recommendable replacement

E3JM-DS70□4(T)-G/US

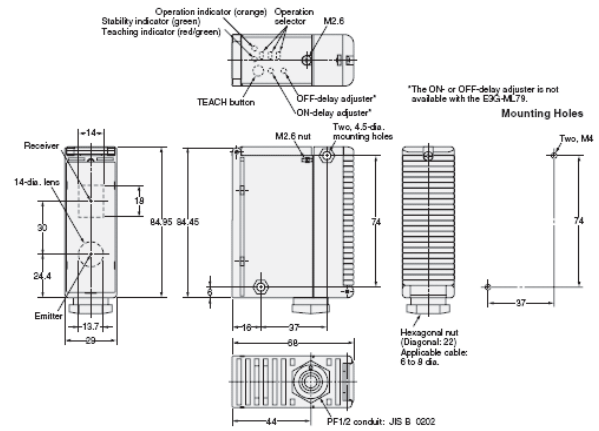
With Mounting Bracket Attached



- *1. Light indicator (without timer function)
- Operation indicator (with timer function)
- *2. Mounting Brackets can be used on the A side.

Note: The operating mode switch, timer mode switch, and sensitivity adjuster (sensitivity adjuster: E3JM-DS70□4(T) only) are located inside the cover.

Model E3G-ML79

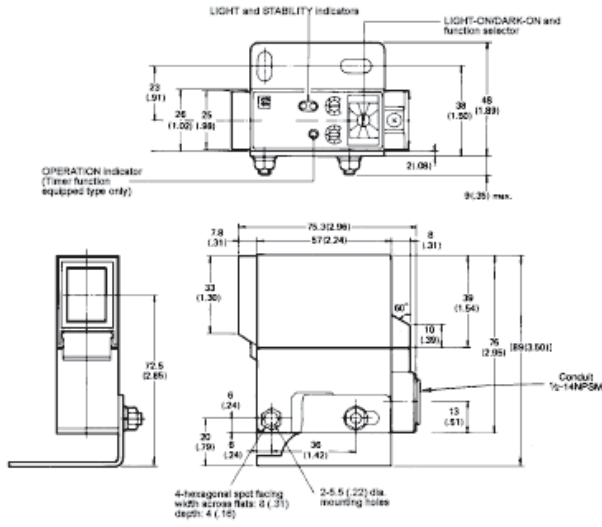


Dimensions

Product discontinuation

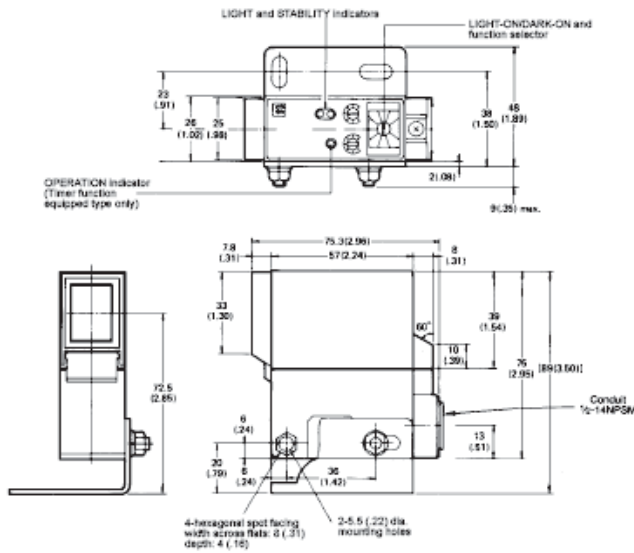
Model E3A2-10□□□ (-G) series

Unit: mm (inch)



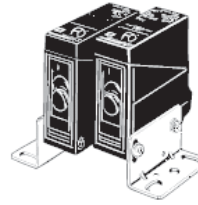
Model E3A2-R3□□□ (-G) series

Unit: mm (inch)

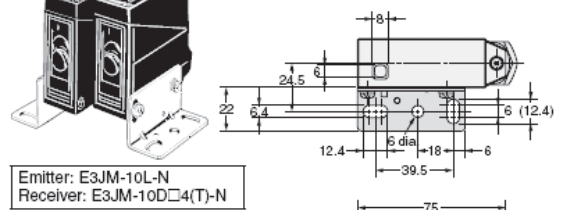


Recommendable replacement

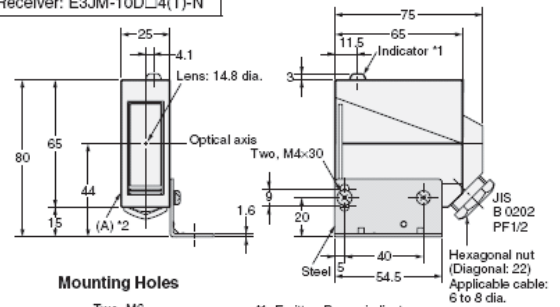
E3JM-10□□4 (T) -G-N/US



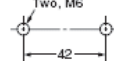
With Mounting Bracket Attached



Emitter: E3JM-10L-N
Receiver: E3JM-10D□4(T)-N



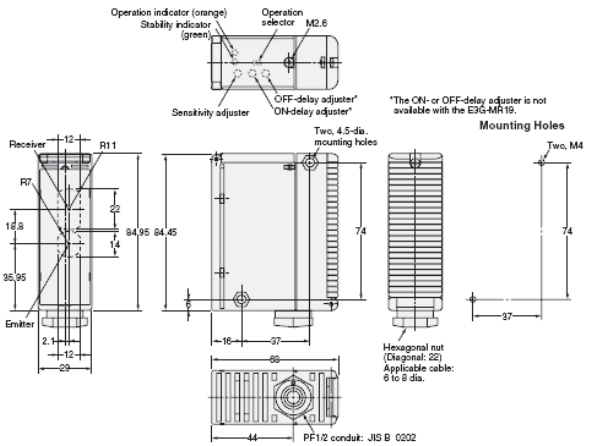
Mounting Holes



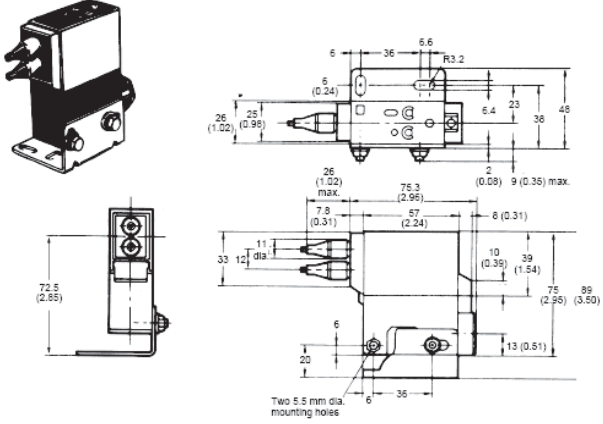
*1. Emitter: Power indicator
Receiver: Light indicator (without timer function)
Operation indicator (with timer function)
*2. Mounting Brackets can be used on the A side.

Note: The operating mode switch and timer mode switch are located inside the cover.

Model E3G-MR19(T)(-G)



Dimensions

Product discontinuation	Recommendable replacement
<p data-bbox="244 360 499 394">Model E3A2-XCtype</p> 	<p data-bbox="895 360 963 394">None</p>

Wire Connection

Product discontinuation

Model E3A2-10[][] (-G) Through-beam types

Light Source

Receiver

24 to 240 VAC
12 to 240 VDC

See Output Circuit Diagrams

Model E3A2-DS70M4[]/ R3M[]

Retroreflective and Diffuse Reflective Types

See Output Circuit Diagrams

24 to 240 VAC
12 to 240 VDC

Relay output

Main circuit

Load

Load

Power supply

Recommendable replacement

Model E3JM-10[]4(T)-G-N/US
 Model E3JM-DS70[]4(T)-G/US
 Model E3G-MR19(T)-(-G)

Photo-electric Sensor main circuit

Power supply 24 to 240 VAC or 12 to 240 VDC (no polarity restriction)

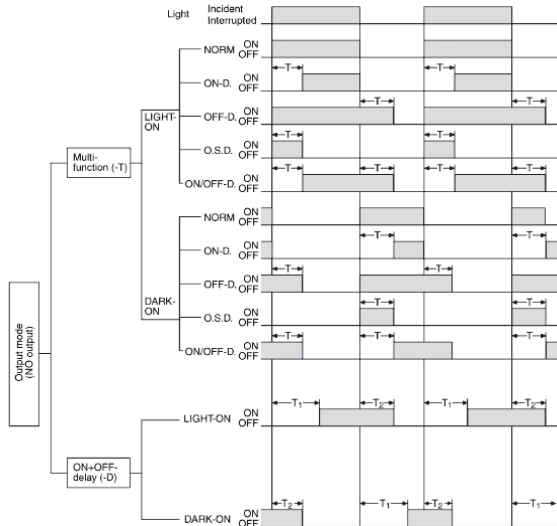
Contact output (G6C Relay built in)

1 Tc
2 Ta
3 Tb
4
5

Timing chart

Product discontinuation

Model E3A2 series



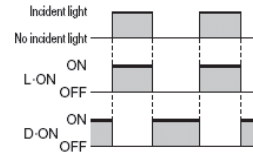
NOTE:

1. For sensors without built-in timer functions, operation follows the NORM mode shown with multi-function time delay models.
2. T₁, T₂ and T denote set time, variable within 0.1 to 5 second range.
3. For multifunction time delay models (part numbers ending in "T"), the ON- and OFF-delay time settings will be the same.
4. For ON- and OFF-delay models (part numbers ending in "D"), T₁ and T₂ are independently variable.
5. O.S.D.: one shot delay

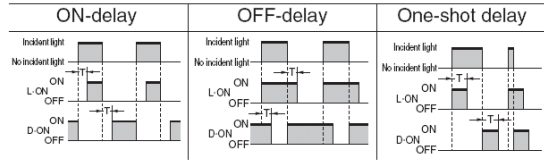
Recommendable replacement

E3JM series

Models without timer

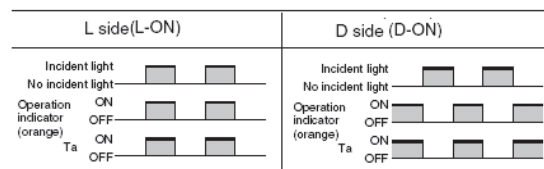


Models with timer



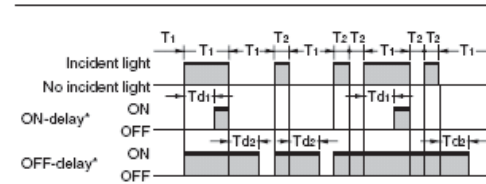
E3G series

Models without timer

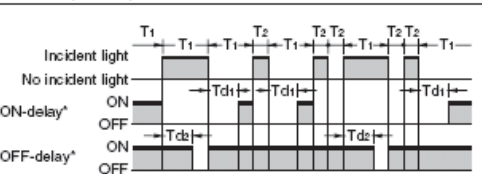


Models with timer

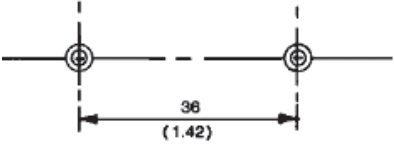
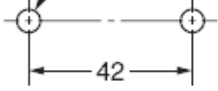
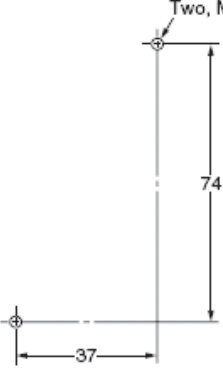
L side(L-ON)



D side(D-ON)



Mounting dimensions

Product discontinuation	Recommendable replacement
<p data-bbox="245 360 478 389">Model E3A2 series</p> <p data-bbox="379 400 552 430">Mounting holes</p>  <p>The diagram shows a horizontal line representing the mounting surface. Two vertical dashed lines indicate the positions of the mounting holes. A dimension line below the line shows a distance of 36 units, with the equivalent value (1.42) in parentheses below it.</p>	<p data-bbox="863 360 1238 389">Model E3JM-10[4(T)-G-N/US</p> <p data-bbox="863 394 1238 423">Model E3JM-DS70[4(T)-G/US</p> <p data-bbox="1034 434 1139 463">Two, M6</p>  <p>The diagram shows a horizontal line with two vertical dashed lines indicating the positions of the mounting holes. A dimension line below the line shows a distance of 42 units.</p> <p data-bbox="863 613 1166 642">Model E3G-MR19(T)(-G)</p> <p data-bbox="1002 658 1182 687">Mounting Holes</p> <p data-bbox="1139 703 1228 732">Two, M4</p>  <p>The diagram shows an L-shaped mounting surface. A vertical dashed line indicates the position of one mounting hole, and a horizontal dashed line indicates the position of another. A dimension line to the right of the vertical line shows a distance of 74 units. A dimension line below the horizontal line shows a distance of 37 units.</p>

Characteristics

Item		Product discontinuation	Recommended replacement
		E3A2-10□□□(-G)	E3JM-10□□4(T)-G-N/US
Sensing distance		10 m (32.8 ft)	10 m
Power supply voltage		24 to 240 VDC, 50/60 Hz; 12 to 240 VDC	12 to 240 VDC±10%, ripple (p-p): 10% max. 24 to 240 VAC±10%, 50/60 Hz
Light source(wavelength)		infrared LED (950 nm)	Infrared LED (950 nm)
Power/Current Consumption		Relay output type	3 W max. (Emitter 1.5 W max. Receiver 1.5 W max.)
		DC solid-state output	
		AC solid-state output	
Control output	relay	Type	Relay output (E3JM-□□M4 (T) model): SPDT, 250 VAC, 3A (cosφ=1) max., 5 VDC, 10 mA min.
		Max. load	
Response Time(ON and OFF)	Relay output type	15 ms max. with G6C-2117P-DC8 output module (standard)	(E3JM-□□M4 (T) models) Operate or reset: 30 ms max.
Timer function		Type E3A2-□□□T	ON-delay/OFF-delay/One-shot delay switch selectable (Only for E3JM-□□□4T)
		Type E3A2-□□□D	
		Range	0.1 to 5 seconds
Degree of protection		IEC 60529: IP66	IEC 60529: IP66

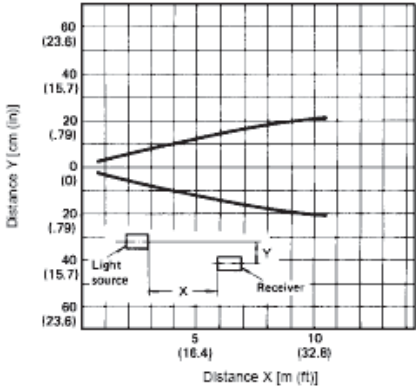
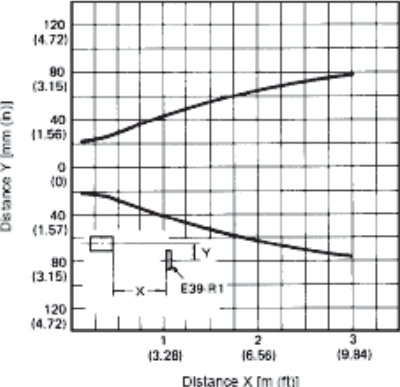
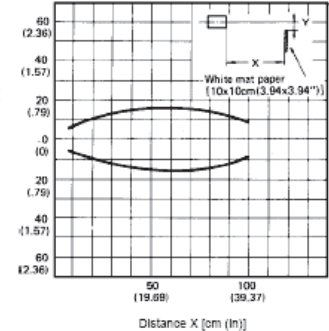
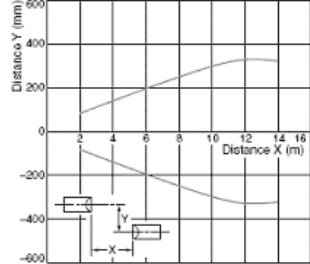
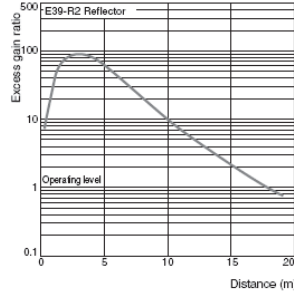
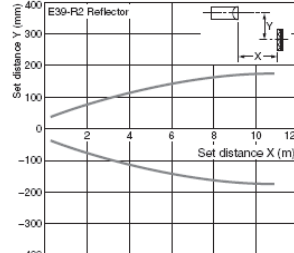
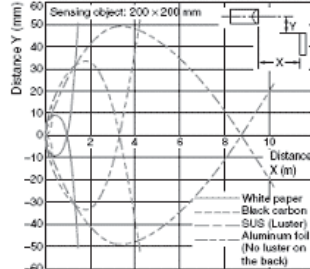
Characteristics

Item		Product discontinuation	Recommended replacement
		E3A2-DS70□□□(-G)	E3JM-DS70□4(T)-G-N/US
Sensing distance		70 cm (27.6 in) with 10 x 10 cm (3.94 x 3.94 in) 90% reflectance white mat paper	White paper (200 × 200 mm): 700 mm
Power supply voltage		24 to 240 VDC, 50/60 Hz; 12 to 240 VDC	12 to 240 VDC±10%, ripple (p-p): 10% max. 24 to 240 VAC±10%, 50/60 Hz
Light source(wavelength)		infrared LED (950 nm)	Infrared LED (950 nm)
Power/Current Consumption	Relay output type	1.5 W max.	2 W max.
	DC solid-state output		
	AC solid-state output	2 VA max.	
Control output	relay	Type	Relay output (E3JM-□□M4 (T) model): SPDT, 250 VAC, 3A (cosφ=1) max., 5 VDC, 10 mA min.
		Max. load	
Response Time(ON and OFF)	Relay output type		Operate or reset: 30ms max.
Timer function	Type E3A2-□□□T	Normal, ON-delay, OFF-delay, one-shot or equal ON- and OFF-delays, switch selectable	ON-delay/OFF-delay/One-shot delay switch selectable (Only for E3JM-□□□4T)
	Type E3A2-□□□D	Independent ON- and OFF-delays	
	Range	0.1 to 5 seconds	
Degree of protection		IEC 60529: IP66	IEC 60529: IP66

Characteristics

Item		Product discontinuation	Recommended replacement
		E3A2-R3□□□(-G)	E3G-MR19(T)(-G)
Sensing distance		3 m (9.8 ft) with E39-R1 reflector (included)	10 m (500 mm) (when using E39-R2)
Power supply voltage		24 to 240 VDC, 50/60 Hz; 12 to 240 VDC	12 to 240 VDC±10%, ripple (p-p): 10% max. 24 to 240 VAC±10% at 50/ 60 Hz
Light source(wavelength)		Pulse modulated red LED, polarized (680 nm)	Red LED (650 nm)
Power/Current Consumption		Relay output type	2 W max.
		DC solid-state output	
		AC solid-state output	
Control output	relay	Type	Relay output: SPDT, 3 A (cosφ= 1) max. at 250 VAC or 3 A max. at 30 VDC L.ON/D.ON selectable
		Max. load	
Response Time(ON and OFF)	Relay output type	15 ms max. with G6C-2117P-DC8 output module (standard)	Operate or reset: 30 ms max.
Timer function		Type E3A2-□□□T	ON-or OFF-delay or One-shot delay. 0 to 5s(adjustable) (only for E3G-MR19T)
		Type E3A2-□□□D	
		Range	
Degree of protection		IEC 60529: IP66	IEC 60529 IP67 (with protective cover)

Operation ratings

Product discontinuation	Recommendable replacement
<p data-bbox="272 365 647 421">■ LIGHT SOURCE/RECEIVER SETTING RANGE</p> <p data-bbox="272 432 480 459">Through-Beam Type</p>  <p data-bbox="268 465 686 851">Distance Y [cm (in)]</p> <p data-bbox="443 824 590 851">Distance X [m (ft)]</p> <p data-bbox="272 887 689 913">■ REFLECTOR SETTING RANGE</p> <p data-bbox="268 925 475 952">Retroreflective Type</p>  <p data-bbox="268 992 670 1377">Distance Y [mm (in)]</p> <p data-bbox="443 1355 590 1377">Distance X [m (ft)]</p> <p data-bbox="268 1424 504 1451">■ OPERATING RANGE</p> <p data-bbox="268 1462 456 1489">Diffuse Reflective Type</p>  <p data-bbox="268 1507 598 1836">Distance Y [mm (in)]</p> <p data-bbox="406 1814 518 1836">Distance X [cm (in)]</p>	<p data-bbox="815 439 1050 488">Through-beam E3J■-10□4(T)-G-N/US</p>  <p data-bbox="815 499 1125 761">Distance Y [mm]</p> <p data-bbox="1013 627 1125 649">Distance X [m]</p> <p data-bbox="815 819 1125 846">E3G-R/MR Retro-reflective Models</p> <p data-bbox="815 853 1050 880">Excess Gain vs. Set Distance</p>  <p data-bbox="815 887 1109 1176">Excess gain ratio</p> <p data-bbox="1045 1153 1109 1176">Distance (m)</p> <p data-bbox="1134 853 1337 880">Parallel Operating Range</p>  <p data-bbox="1134 902 1428 1153">Set distance Y [mm]</p> <p data-bbox="1332 1041 1428 1064">Set distance X [m]</p> <p data-bbox="815 1227 1050 1276">Diffuse-reflective E3J■-DS70□4(T)-G/US</p>  <p data-bbox="815 1288 1125 1556">Distance Y [mm]</p> <p data-bbox="1013 1422 1125 1444">Distance X [m]</p> <p data-bbox="1045 1478 1125 1556"> <ul style="list-style-type: none"> White paper Black carbon SUS (Luster) Aluminum foil (No luster on the back) </p>

Operation methods

Product discontinuation	Recommendable replacement
Sensitivity adjustment E3A2-10□□□□ : fixed E3A2- R3□□□□/DS70□□□□ : one-turn adjuster	Sensitivity adjustment E3JM-10M4(T) : fixated E3G-MR19(T)/E3JM-DS70M4(T) : one-turn adjuster