

Product Discontinuation Notices

April 1, 2010

Photoelectric Sensors

No. 2010116E

Discontinuation Notice of photoelectric Sensor E3C-L11M series

Product Discontinuation

Recommended Replacement



E3C-L11M series



**E32-09 series
+
E3X-DA21-S series**

Discontinuation date : The end of March, 2011

Caution on recommended replacement

- 1) When changed to a fiber type photoelectric sensor from a mold release photoelectric sensor for an amplifier. Therefore it is necessary to have you replace an amplifier and a sensor with a set.
(The amplifier E3C-JC4P series is not production cancellation)
- 2) When Installation pace of the sensor part and shape change. Please refer to a figure of external form dimensions for the details.
- 3) When Rating of the output remaining voltage is changed below 2V from less than 1V.

Difference from discontinued product

Model	Body Color	Dimensions	Wire connection	Mounting Dimensions	Characteristics	Operation ratings	Operation methods
E32-09 series + E3X-DA21-S series	--	--	*	--	*	*	--

** : Fully compatible

* : The change is a little/Almost compatible

-- : Not compatible

- : No corresponding specification

Product Discontinuation and recommended replacement

Product discontinuation	Recommended replacement
E3C-L11M series	Fiber Head : E32-A09 series + Amplifier : E3X-DA21-S series

Body color

item	Product discontinuation E3C-L11M series (+ E3C-JC4P series)		Recommendable replacement E32-A09 series (+ E3X-DA21-S series)	
	Sensor	Amplifier	Fiber head	Amplifier
Color	Black	Gray	Silver	Black

Dimensions

Product discontinuation E3C-L11M series (+ E3C-JC4P series)	Recommendable replacement E32-A09 series + E3X-DA21-S series
<p>E3C-L11M (Sensor)</p> <p>Optical axis position 50 30 5 16 24.5 20 2-M4 2-φ4.3 2.31 x 3.92 - dia. robot shielded cable with 2 conductors (Conductor cross section: 0.15mm²) Standard length: 2m Lens Light indicator (red)</p>	<p>E39-A09 (Fiber head)</p> <p>Sensing surface (aluminum) Lens 5 dia. 9 20 8.9 12 7 23 2,000 Two, 2.2 dia. Two, 3.2 dia. mounting holes with two, 6 dia. countersinks on one side</p>
<p>E3C-JC4P (Amplifier)</p> <p>With Mounting Bracket Attached Light indicator Stability indicator Timer mode selector switch Operation selector Sensitivity adjuster Caution label 110 50 10 14 4.5-dia. vinyl-insulated round cable with 4 conductors (Conductor cross section: 0.2mm², Insulator diameter: 1.2mm), Standard length: 2 m Two, 3.3 dia. Mounting bracket (iron) (detachable) 29.5 10 11.6 3.2 14 35.5</p> <p>*After adjusting the sensitivity, attach the caution label at the location indicated by ○ above to prevent malfunction.</p>	<p>E3X-DA21-S (Amplifier)</p> <p>With Mounting Bracket Attached 37.8 16.1 12.15 3.9 x 3.3 11.7 3.25 10 4.3 70 22 12.5 28.1 18.7 44.3 34.8 16 3.4 4.4 28.1 16 Two, 3.2-dia. holes Hole for optical communications Mounting Bracket (E30-L143): Sold separately. SUS304 stainless steel Two, M3 Two, 2.4 dia. ○ * The Mounting Bracket can also be used on this side.</p>

Wire connection

Product discontinuation E3C-L11M series (+ E3C-JC4P series)	Recommendable replacement E32-A09 series + E3X-DA21-S series
<p>Light Indicator (red)</p> <p>Stability Indicator (green)</p> <p>Photo-electric Sensor Main Circuit</p> <p>Brown 12 to 24 VDC</p> <p>Black Load 100 mA max.</p> <p>Output</p> <p>Blue 0 V</p> <p>Pink Self diagnostic output 50 mA max.</p>	<p>Display</p> <p>Operation indicator (orange) ch1</p> <p>Operation indicator (orange) ch2</p> <p>Photo-electric Sensor main circuit</p> <p>Brown 12 to 24 VDC</p> <p>Black Load</p> <p>Orange Control output ch1</p> <p>Pink Control output ch2</p> <p>Blue External input</p>

Mounting dimensions

Product discontinuation E3C-L11M series (+ E3C-JC4P series)	Recommendable replacement E32-A09 series + E3X-DA21-S series
<p>E3C-L11M (Sensor)</p> <p>2-M4</p> <p>20 ± 0.2</p> <p>E3C-JC4P (Amplifier) Mounting main body</p> <p>2-M3</p> <p>43</p> <p>Mounting blanket</p> <p>2-M3</p> <p>16</p>	<p>E32-A09 (Fiber head)</p> <p>2-M3</p> <p>7</p> <p>E3X-DA21-S (Amplifier)</p> <p>2-M3</p> <p>16</p>

Characteristics

Item Model	Product discontinuation E3C-L11M series (+ E3C-JC4P series)	Recommendable replacement E32-A09 series + E3X-DA21-S series
Sensing distance	20±10mm	15 to 38 (center25)
Power supply voltage	DC12 to 24V±10% ripple (p-p)10%max	DC12 to 24V±10% ripple (p-p)1Vmax
Light source (wavelength)	Infrared rays light emitting diode (860nm)	Red light emitting diode (625nm)
Power consumption Current consumption	50mA max	960mW max (current consumption : 40mA max. at power supply voltage of 24VDC)
Control output	Load power supply voltage : 24VDC max Load current : 100mA max NPN open collector output type (residual voltage : 1V max.) Light-ON/Dark-ON switch selectable	Load power supply voltage : 26.4VDC NPN/PNP open collector load current : 50mA max residual voltage : 2V max
Response time	Operate or reset : 1ms max	Super-high-speed mode : Operate/reset : 80µs high-speed mode : Operate/reset : 250µs Standard mode : Operate/reset : 1ms High-resolution mode : Operate/reset : 4ms
Timer function	OFF-delay 0/40ms(switch selectable)	Select from OFF-delay, ON-delay, or one shot timer. 1ms to 5s (1 to 20 ms set in 1-ms increments, 20 to 200 ms set in 10-ms increments, 200ms to 1 s set in 100-ms increments, and 1to 5 s set in 1s-increment)
Degree of protection	Sensor : IP50 Amplifier : IP60	Fiber head : IP40 Amplifier : IP50

Operation ratings

Product discontinuation E3C-L11M series (+ E3C-JC4P series)	Recommendable replacement E32-A09 series + E3X-DA21-S series
<p>Range of detection</p> <p>Detection object: Clear glass(refractivity4%),thickness 0.7mm Substrate size: 360×460mm</p> <p>Detection angle characteristic</p> <p>Detection object: Clear glass(refractivity4%),thickness 0.7mm Substrate size: 360×460mm</p>	<p>Digital Light-intensity Value vs Sensing Distance (Typical Examples)</p> <p>Sensing object: Raw glass (t = 0.5 mm, beveled/rounded edge)</p> <p>Angle Characteristics in Left and Right Directions (Typical Example)</p> <p>Sensing object: Raw glass (t = 0.5 mm, rounded edge)</p>

Operation methods

Product discontinuation E3C-L11M series (+ E3C-JC4P series)	Recommendable replacement E32-A09 series + E3X-DA21-S series
<p>Sensitivity adjustment : It adjusts it by the sensitivity volume.</p> <p>Optical axis adjustment : It was necessary to move the sensor up and down and right and left, to set for an insertion optical pilot light to light, and to install it.</p>	<p>Sensitivity adjustment : Teaching method Operation with push-button.</p>