

Standard Models (Typical model: E3X-DA21-S)

NEW

Pre-wired Models

NEW

Models with Connectors*


Full Color Models (Typical model: E3X-DAC11-S)

Two-channel Models (Typical model: E3X-MDA11)


Previous Models (Typical model: E3X-DA11-S)

Order Information

Pre-wired Models

Appearance	Functions	Model	
		NPN output	PNP output
	<ul style="list-style-type: none"> • Timer • Tough Mode • Differential operation • External input • Twin output • Self-diagnosis • ATC 	E3X-DA21-S 2M	E3X-DA51-S 2M

Models with Connectors*

Appearance	Functions	Model	
		NPN output	PNP output
	<ul style="list-style-type: none"> • Timer • Tough Mode • Differential operation • Twin output • Self-diagnosis • ATC 	E3X-DA7-S	E3X-DA9-S

* The applicable connectors are the E3X-CN21 (master connector with four conductors) and E3X-CN22 (slave connector with two conductors).

Ratings and Specifications

Item	Model	E3X-DA□S (□: 21/51/7/9)
Light source (wavelength)		Red LED (625 nm)
Power supply voltage		12 to 24 VDC ±10%, ripple (p-p) 10% max.
Power consumption		Normal: 960 mW max. (Current consumption: 40 mA max. at 24 VDC, 80 mA max. at 12 VDC) Power saving ECO1: 720 mW max. (Current consumption: 30 mA max. at 24 VDC, 60 mA max. at 12 VDC) Power saving ECO2: 600 mW max. (Current consumption: 25 mA max. at 24 VDC, 50 mA max. at 12 VDC)
Control output		Load power supply voltage: 26.4 VDC max.; Open-collector output (models available for NPN or PNP output); Load current: 50 mA max. (Residual voltage: 2 V max.); OFF current: 0.5 mA max.
External input *1		No-voltage input (contacts/transistor) *2
Protection circuits		Reverse polarity for power supply connection, output short-circuit, Reversed output polarity protection
Response time (operate and reset)		Super-high-speed Mode *3: 80 μs; High-speed Mode: 250 μs; Standard Mode: 1 ms; High-resolution mode: 4 ms; Tough Mode: 16 ms
Sensitivity adjustment		Teaching or manual method
Func-tions	Power tuning	Light emission power and reception gain, digital control method
	Differential detection	Switchable between single edge and double edge detection mode Single edge: Can be set to 250 μs, 500 μs, 1 ms, 10 ms, or 100 ms. Double edge: Can be set to 500 μs, 1 ms, 2 ms, 20 ms, or 200 ms.
	Timer function	Select from OFF-delay, ON-delay, one-shot, or ON-delay + OFF-delay timer. 1 ms to 5 s (1 to 20 ms set in 1-ms increments, 20 to 200 ms set in 5-ms increments, 200 ms to 1 s set in 100-ms increments, and 1 to 5 s set in 1 s-increments)
	Automatic power control (APC)	High-speed control method for emission current
	ATC (Automatic Threshold Compensation)	Supported
	Zero-reset	Negative displays are possible. (The threshold value also shifts.)
	Resetting settings	Select from initial reset (factory defaults) or user reset (saved settings).
	Mutual interference prevention	Up to 10 Units *4
	ECO mode *5	Select from lit display, dimmed display, or OFF.
	External input setting *1	Select from teaching operations, power tuning, zero reset, emitter OFF, or ATC start.
Output setting	Select from output for each channel, area output, or self-diagnosis.	
Display		Operation indicator for channel 1 (orange), Operation indicator for channel 2 (orange)

*1. Only for pre-wired models.

*2. Refer to the datasheet (Cat. No. E336) for details on the input.

*3. The communications function and mutual interference prevention function are disabled if detection is set to Super-high-speed Mode.

*4. Mutual interference prevention can be used for only up to 6 Units if power tuning is enabled.

*5. When the ECO Mode is enabled, the rated sensing distance is approx. 1/2 and the incident level is approx. 1/3 of the normal levels.

Note: The E3X-MC11-SV2 Mobile Console does not currently support the new Tough Mode and ON-delay + OFF-delay timer. You also cannot use the E3X-MC11-S.

Sensing Distance (Typical Examples)

Type		Model	Tough Mode	High-resolution Mode	Standard Mode	High-speed Mode	Super-high-speed Mode
Through-beam	Flexible	E32-T11R *1	2,000	1,400	1,000	700	280
		E32-T21R *2	450	300	250	150	60
	Standard	E32-TC200 *1	2,800	2,000	1,550	1,000	400
Retro-reflective	Flexible	E32-D11R *3	840	600	350	240	100
		E32-D21R *2	140	100	60	40	16
	Standard	E32-DC200 *3	1,400	1,000	600	400	180
	Co-axial and flexible	E32-CC200R *3	700	500	300	200	90
		E32-CC200 *3	1,400	1,000	600	400	180
Co-axial	E32-C31 *2	330	240	150	100	44	

*1. The appearance is same as models with M4 screws.

*2. The appearance is same as models with M3 screws.

*3. The appearance is same as models with M6 screws.



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