

## Easy-teach digital fiber amplifier



# E3X-SD

The E3X-SD easy-teach fiber amplifier is the ideal solution for all standard fiber applications. The one-button teaching and/or the simple threshold adjustment with up/down keys and the easy to read display allow an intuitive usage and fast set up.

- easy one-button teaching
- easy to read display and simple threshold adjustment with up/ down keys for intuitive usage
- GIGA RAY LED for high performance and precision





### Ordering Information

Shape	Item	Order code	
		NPN output	PNP output
	Pre-wired	E3X-SD21 2M	E3X-SD51 2M
	Fiber amplifier connector* <sup>1</sup>	E3X-SD7	E3X-SD9

\*<sup>1</sup>: Order connector separately. For M8 connector models see E3X-DA-S.

### Amplifier Unit Connectors (sold separately)

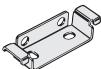
Shape	Type	Comment	Order code
	Fiber amplifier connector	2 m PVC cable	E3X-CN21* <sup>1</sup>
		30 cm PVC cable with M12 plug connector (4 pin)	E3X-CN21-M1J 0.3M
		30 cm PVC cable with M8 plug connector (4 pin)	E3X-CN21-M3J-2 0.3M

\*<sup>1</sup>: 4-wire version. For 3-wire version order E3X-CN11.

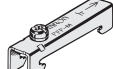
Note: Stickers for Connectors are included as accessories.

### Accessories (sold separately)

#### Mounting Brackets

Appearance	Model	Quantity
	E39-L143	1

#### End Plate

Appearance	Model	Quantity
	PFP-M	1

## Ratings and Specifications

## Amplifier Units

Item	E3X-SD□	
Light source (wavelength)	Red, 4-element LED (625 nm)	
Power supply voltage	12 to 24 VDC ±10%, ripple (p-p): 10% max.	
Power consumption/ Current consumption	960 mW max. (Power supply voltage: 24 V, Current consumption: 40 mA max.) (Power supply voltage: 12 V, Current consumption: 80 mA max.)	
Control output	Open-collector output (NPN or PNP) Load power supply: 26.4 V max., Load current: 50 mA max. (Residual voltage: 1.5 V max.) Light-ON/Dark-ON mode selector	
Response time	Operate or reset: 200 μs max.	
Sensitivity adjustment	UP/DOWN direct key setting, teaching with/without a workpiece, automatic teaching	
Protection circuits	Power supply reverse polarity protection, output short-circuit protection, output reverse polarity protection	
Mutual interference prevention	Up to 5 Amplifiers (optically synchronized) <sup>*1</sup>	
Ambient illumination	Receiver side Incandescent lamp: 10,000 lux max. Sunlight: 20,000 lux max.	
Number of gang-mounted Amplifiers	16 max. (The ambient temperature specification depends on the number of gang-mounted Amplifiers.)	
Ambient temperature range	Operating: Groups of 1 to 3 Amplifiers: -25°C to 55°C Groups of 4 to 11 Amplifiers: -25°C to 50°C Groups of 12 to 16 Amplifiers: -25°C to 45°C Storage: -30°C to 70°C (with no icing or condensation)	
Ambient humidity range	Operating and storage: 35% to 85% (with no 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 hours each in X, Y and Z directions	
Shock resistance	Destruction: 500 m/s <sup>2</sup> , for 3 times each in X, Y and Z directions	
Degree of protection	IEC 60529 IP50 (with Protective Cover attached)	
Connection method	Pre-wired (standard cable length: 2 m), or connector	
Weight (packed state)	Pre-wired model: Approx. 100 g, Model with connector: Approx. 55 g	
Material	Case	Polybutylene terephthalate (PBT)
	Cover	Polycarbonate (PC)
Accessories	Instruction manual	

<sup>\*1</sup>. Mutual interference prevention is effective when E3X-SD-series Amplifiers are gang-mounted without other E3X-series Amplifiers.