

Channel ACTION ALERT!

OMRON

NO: PH-139
DATE: August 2010

PRODUCT: E3X-NT/-NV-NVG Sensors
TYPE: Discontinuation Notice

**E3X-NT/E3X-NV/E3X-NVG Fiber-Optic Sensor Amplifiers
were Discontinued July 2010; Use E3X-SD or E3X-DA Series**

Product Discontinuation		Recommended Replacement
E3X-NT series		E3X-SD series
E3X-NV series		E3X-DA**V series
E3X-NVG series		E3X-DA-S series

Omron discontinued these older series of fiber-optic sensor amplifiers due to low sales volume. Help users migrate to easier-to-use models with digital displays that also offer greater stability.

Discontinuation date: The end of July, 2010

Caution on applying recommended replacements

The recommended replacements for E3X-NT/NV/NVG series provide a teaching function and a digital display for easier setup and use. The specifications of the replacements have been enhanced and the detection is more stable.

Please use the recommended replacements.

1. Migrating from E3X-NVG21 to E3X-DAC*1-S series, the light source is changed from red LED to white LED.
2. When it is substituted by the E3X-SD series, the residual voltage of the control output increases to 1.5 V max. from 1 V max.
3. When it is substituted by the E3X-DAC-S series, the residual voltage of the control output increases to 2 V max. from 1 V max.
4. The load current for replacement models goes down to 50 mA max. from 100 mA max.

Difference from discontinued product

Model	Body Color	Dimensions	Wire connection	Mounting Dimensions	Characteristics	Operation ratings	Operation methods
E3X-SD□1	--	*	*	*	*	*	*
E3X- DA*V	--	--	*	*	*	*	*
E3X-DA*-S	--	--	*	*	*	*	*

** : Fully compatible

* : The change is a little / Almost compatible

-- : Not compatible

- : No corresponding specification

Product Discontinuation/Recommended Replacement

Product discontinuation	How to select the replacement	Recommended replacements
E3X-NT11 2M	—	E3X-SD21 2M
E3X-NT11 5M	—	E3X-SD21 5M
E3X-NT41 2M	—	E3X-SD51 2M
E3X-NT41 5M	—	E3X-SD51 5M
E3X-NT21 2M E3X-NT21 5M	When timer or remote teaching input function is unnecessary.	E3X-SD21 2M
		E3X-SD21 5M
	When timer or remote teaching input function is necessary.	E3X-DA21-S 2M
		E3X-DA21-S 5M
E3X-NT51 2M E3X-NT51 5M	When timer or remote teaching input function is unnecessary.	E3X-SD51 2M
		E3X-SD51 5M
	When timer or remote teaching input function is necessary.	E3X-DA51-S 2M
E3X-NT11-M1J 0.3M	—	—
E3X-NT41-M1J 0.3M	—	—
E3X-NV21 2M	—	E3X-DA11V 2M
E3X-NVG21 2M	—	E3X-DAC21-S 2M

Body color

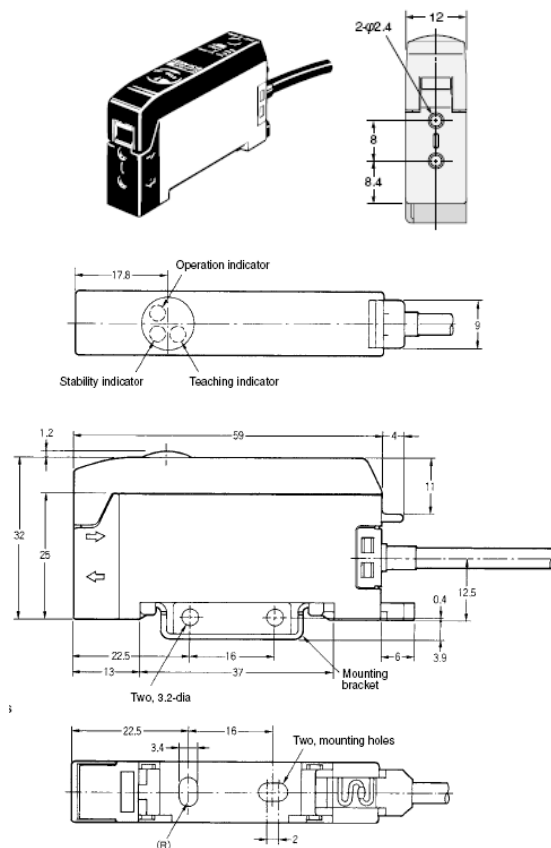
Product discontinuation E3X-NT/NV/NVG series	Recommended replacement E3X-SD/DAV/DA-S series
Case: Light gray	Black

Dimensions

Product discontinuation E3X-NT/NV/NVG series	Recommended replacement E3X-SD/DAV/DA-S series
E3X-NT series Operation indicator Stability indicator (A) (see note 1) Note: The mounting bracket can be attached to this side. Vinyl insulated round cord (cord type: see note 1) Standard length 2 m	E3X-SD series With Mounting Bracket Attached 4-dia. vinyl-insulated round cable with 3 conductors* (Conductor cross section: 0.2 mm², insulator diameter: 1.1 mm), Standard length: 2 m. Operation Indicator A *1 Mounting Holes Two, M3 Hole for optical communications *2 Mounting bracket (E39-L143) (Order separately) Stainless steel (SUS304) *1. The mounting bracket can also be used on side A. *2. There is no hole for E3X-NA□F models.

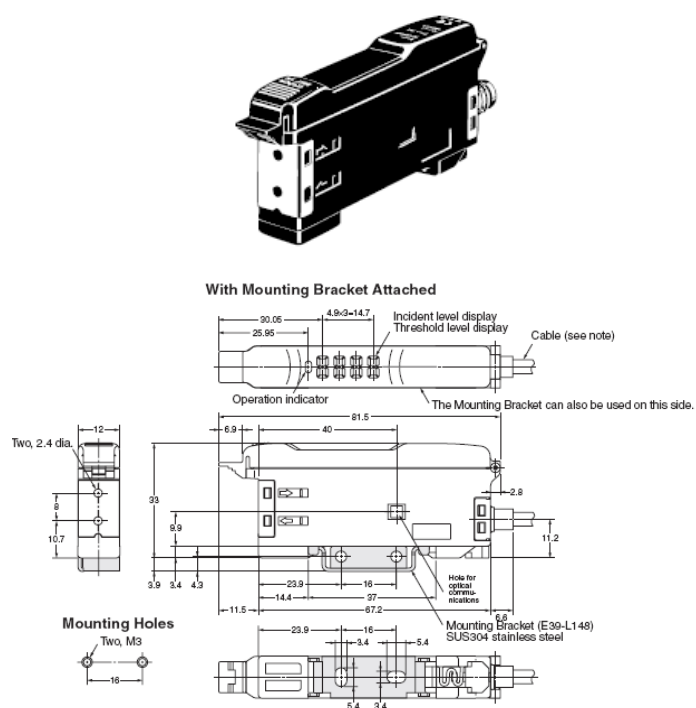
Product discontinuation
E3X-NT/NV/NVG series

E3X-NV/NVG series

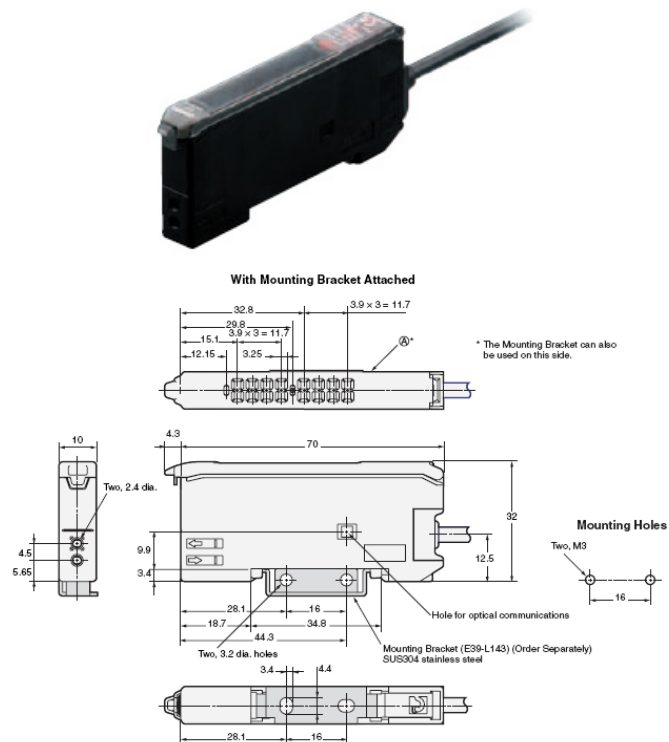


Recommended replacement
E3X-SD/DAV/DA-S series

E3X-DAV series

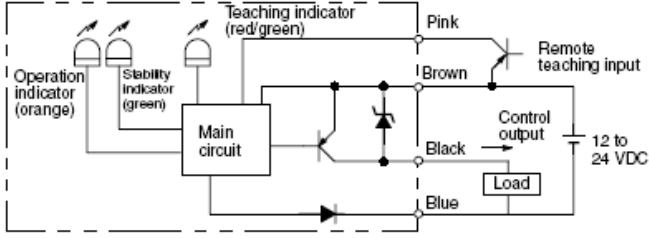
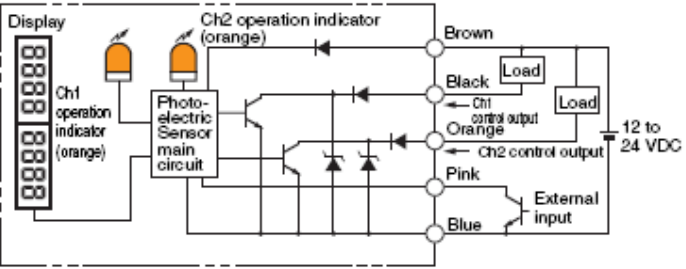
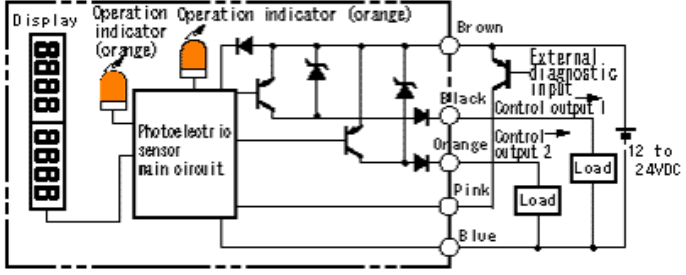


E3X-DA-S series

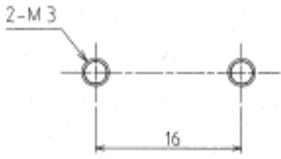
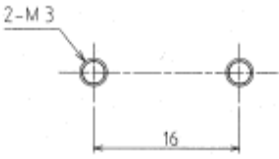


Wire Connection

Product discontinuation E3X-NT/NV/NVG series	Recommended replacement E3X-SD/DAV/DA-S series
E3X-NT11	E3X-SD21
E3X-NT41	E3X-SD51
E3X-NT21/NV21/NVG21	E3X-DA11V
	E3X-DA21-S

Product discontinuation E3X-NT/NV/NVG series	Recommended replacement E3X-SD/DAV/DA-S series
E3X-NT51 	E3X-DAC21-S  E3X-DA51-S 

Mounting Dimensions

Product discontinuation E3X-NT/NV/NVG series	Recommended replacement E3X-SD/DAV/DA-S series
1) DIN track mounting 2) Screw mounting 	1) DIN track mounting 2) Screw mounting 

Characteristics

Item		Product discontinuation		Recommended replacement	
Model	PNP output	E3X-NT11	E3X-NT21	E3X-SD21	E3X-DA21-S
	PNP output	E3X-NT41	E3X-NT51	E3X-SD51	E3X-DA51-S
Light source (wavelength)		Red LED (680nm)		Red LED (625nm)	
Power supply voltage		12 to 24 VDC ±10%, ripple (p-p): 10% max.			
Power consumption Current consumption		50mA max		960mW max (current consumption: 40mA max. at power supply voltage of 24 VDC)	
Control output		Load power supply voltage: 26.4 VDC; open collector; Load current: 100 mA max.; Residual voltage: 1V max.		Load power supply voltage: 26.4 VDC; open collector; Load current: 50 mA max.; Residual voltage: 1.5V max.	Load power supply voltage: 26.4 VDC; open collector; Load current: 50 mA max.; Residual voltage: 2V max.
External input		none	have	none	have
Response time		Operate or reset: 200μs max.		Operate or reset: 200μs max.	Super-high-speed mode: 80μs for operation and reset respectively high-speed mode: 250μs for operation and reset respectively Standard mode: 1 ms for operation and reset respectively High-resolution mode: 4 ms for operation and reset respectively Tough mode: 16 ms for operation and reset respectively
Sensitivity setting		Teaching method		Teaching or manual method	
Timer function		none	OFF delay time:40ms	none	Timer type: Timer disabled, OFF delay, ON delay, one-short, OFF delay+ON delay Timer time: 1 ms to 5 s (variable)
Display		Operation indicator (orange LED), Stable indicator (green LED) Teaching indicator (red LED, green LED)		Operation indicator (orange LED), Lon / Don indicator (orange LED), Teaching indicator (orange LED)	Operation indicator 1ch (orange LED), Operation indicator 2ch (orange LED),
Sensing Distance (E32-DC200)		110mm		300mm	Tough mode: 1400mm High-resolution mode:1000mm Standard mode: 600mm High-Speed mode: 400mm, Super-high-speed mode: 180mm
Ambient temperature		Operating: -25°C to 55°C Storage: -40°C to 70°C (with no icing or condensation)		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 (with no icing or condensation) Storage: -30°C to 70°C (with no icing or condensation)	Operating: Groups of 1 to 2 Amplifiers: -25°C to 55°C Groups of 3 to 10 Amplifiers: -25°C to 50°C Groups of 11 to 16 Amplifiers: -25°C to 45°C (with no icing or condensation) Storage: -30°C to 70°C (with no icing or condensation)
Degree of protection		IEC 60529 IP50 (with Protective Cover attached)			
Materials	Case	Polybutylene terephthalate (PBT)			
	Cover	Polycarbonate			

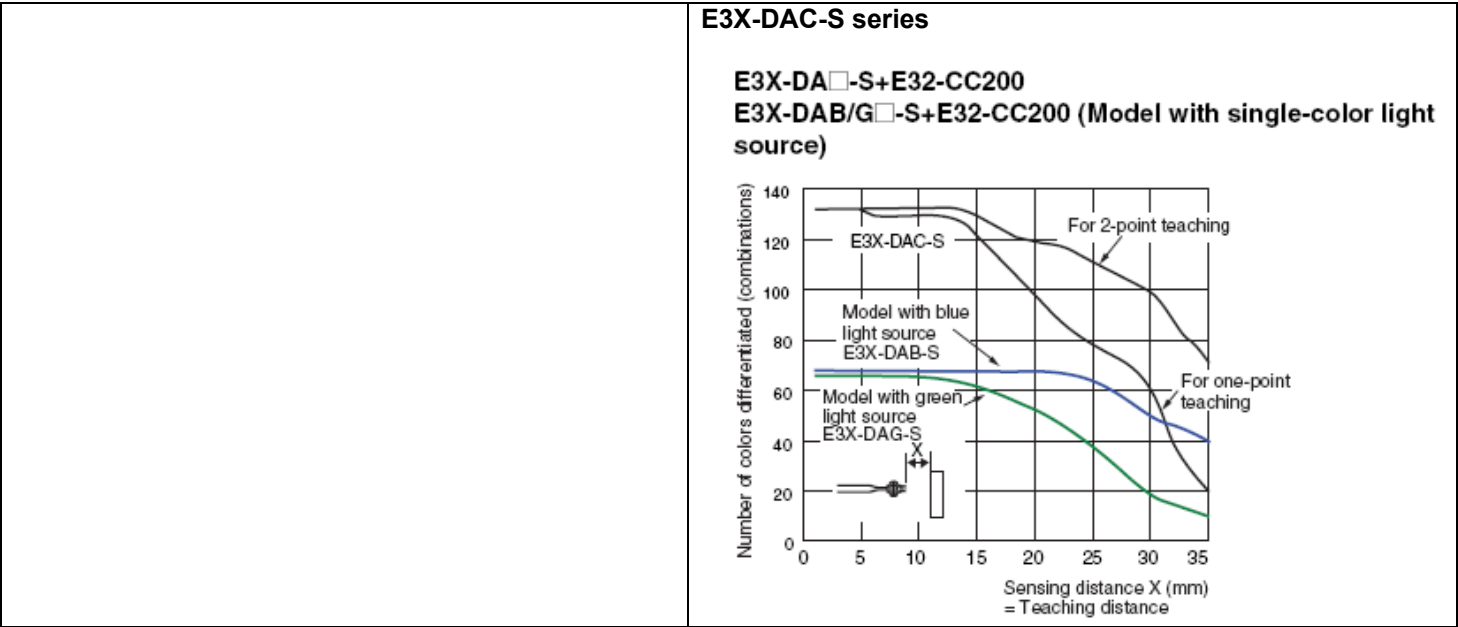
Characteristics (continued)

Item		Product discontinuation		Recommended replacement	
Model	PNP output	E3X-NV21	E3X-NVG21	E3X-DA11V	E3X-DAC11-S
Light source (wavelength)		Red LED (680nm)	Green LED (565nm)	Red LED (660nm)	White LED (420~700nm9)
Power supply voltage		12 to 24 VDC $\pm$ 10%, ripple (p-p): 10% max.			
Power consumption		50mA max		960mW max	
Current consumption				(current consumption: 40mA max. at power supply voltage of 24 VDC)	
Control output		Load power supply voltage: 26.4 VDC; open collector; Load current: 100mA max.; Residual voltage: 1V max.		Load power supply voltage: 26.4 VDC; open collector; Load current: 50mA max.; Residual voltage: 1V max.	Load power supply voltage: 26.4 VDC; open collector; Load current: 50mA max.; Residual voltage: 1.5V max.
External input		none	have	none	have
Response time		Operate or reset: 200 μ s max.		Super-high-speed mode: 0.25 ms for operation and reset respectively Standard mode: 1 ms for operation and reset respectively Super-long-distance mode: 4 ms for operation and reset respectively	Super-high-speed mode: 60 μ s for operation and reset respectively high-speed mode: 300 μ s for operation and reset respectively Standard mode: 1 ms for operation and reset respectively High-resolution mode: 4 ms for operation and reset respectively
Sensitivity setting		Teaching method		Teaching or manual method	
Timer function		OFF delay timer:40ms		OFF-delay timer: 0 to 200 ms (variable)	Timer type: Timer disabled OFF delay, ON delay, one-short OFF delay+ON delay Timer time: 1 ms to 5 s (variable)
Display		Operation indicator (orange LED), Stable indicator (green LED) Teaching indicator (red LED, green LED)		Operation indicator (orange LED), 7-segment digital display	Operation indicator (orange) I mode display indicator (orange) 7-segment digital display
Sensing Distance (E32-DC200)		110mm		High-Speed mode: 100mm Standard: 300mm Super-long-distance mode: 400mm	Standard mode: 45mm
Ambient temperature		Operating: -25°C to 55°C Storage: -40°C to 70°C (with no icing or condensation)		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 (with no icing or condensation) Storage: -30°C to 70°C (with no icing or condensation)	Operating: Groups of 1 to 2 Amplifiers: -25°C to 55°C Groups of 3 to 10 Amplifiers: -25°C to 50°C Groups of 11 to 16 Amplifiers: -25°C to 45°C (with no icing or condensation) Storage: -30°C to 70°C (with no icing or condensation)
Degree of protection		IEC 60529 IP66 (with Protective Cover attached)			
Materials	Case	Polybutylene terephthalate (PBT)			
	Cover	Polycarbonate (PC)			

Operation Ratings

Product discontinuation E3X-NT/NV/NVG series	Recommended replacement E3X-SD/DAV/DA-S series
Parallel Operating Range (Typical) E32-TC200	E3X-SD series Parallel Operating Range (Typical) E32-TC200
Operating Range (Typical) E32-DC200	Operating Range (Typical) E32-DC200
	E3X-DA□□V series Parallel Operating Range (Typical)
	Operating Range (Typical)

Operation Ratings (continued)



Operation Methods

Product discontinuation E3X-NT/NV/NVG series	Recommended replacement E3X-SD/DAV/DAC-S series
Operation with slide switch and push-button.	E3X-DAV/DA-S series Operation with slide switch and push-button. E3X-SD series Operation with push-button.

Accessories

Product discontinuation E3X-NT/NV/NVG series	Recommended replacement E3X-SD/DAV/DA-S series
1. Instruction Manual 2. Screw mounting (Only E3X-NV series)	1. Instruction Manual