

Product Discontinuation Notices

August 1, 2011

Photoelectric Sensors

No. 2011239E-2

Discontinuation Notice of Photoelectric Sensor E3X-NL series, E3X-NM series (for china area only)

Product Discontinuation



E3X-NL series BY OMS

E3X-NM series BY OMS



Recommended Replacement

E3X-DA-S series BY OMS

E32 series

E3X-MDA series BY OMS

Discontinuation date : The end of March, 2012

Caution on recommended replacement

E3X-NL series

- The recommended replacement is a normal type of the fiber amplifier sensor, whereas the conventional one is a grossness detection type. So, the customers are requested to confirm the feasibility about whether or not the replacement is able to match the concerned application.
- The customers are requested to check the installation dimensions because the outline dimensions of the current model are different from the outline dimensions of the replacement.
- Please replace the amplifier along with the fiber unit to make sure the sensing performance.

E3X-NM series

- The recommended replacement is a normal type of the fiber amplifier sensor, whereas the conventional one is a grossness detection type. So, the customers are requested to confirm the feasibility about whether or not the replacement is able to match the concerned application.
- The remote input function will be eliminated.
- In the case that the customers are using a reflective fiber where the insertion entrance is an integrated type, the customers are needed to change the fiber unit because the pitch at the fiber insertion position of the replacement is different from that of the conventional's.
- E3X-NM11-4 is modified product.

The length of this code was changed from 2m(5m) to 0.25m, connector processing.

The maker of connector is JST (EHR-6, SEH-001T-P0.6)

The difference between E3X-NM11 and E3X-NM11-4 is code length, other function are the same.

Difference from discontinued product

E3X-NL series

Model	Body Color	Dimensions	Wire connection	Mounting Dimensions	Characteristics	Operation ratings	Operation methods
E3X-DA-S	--	--	--	--	*	--	--
E32	*	--	--	--	--	-	-

E3X-NM series

Model	Body Color	Dimensions	Wire connection	Mounting Dimensions	Characteristics	Operation ratings	Operation methods
E3X-MDA	--	--	--	--	*	--	--

** : Fully compatible

* : The change is a little/Almost compatible

-- : Not compatible

- : No corresponding specification

Product Discontinuation and recommended replacement

	Product discontinuation	Recommended replacement
E3X-NL series	E3X-NL11 2M BY OMS	E3X-DA21-S 2M BY OMS (E32-L25L 2M The amplifier unit and the fiber head should change by the set.)
E3X-NM series	E3X-NM11 2M BY OMS	E3X-MDA11 2M BY OMS
	E3X-NM11 5M BY OMS	E3X-MDA11 5M BY OMS
	E3X-NM41 2M BY OMS	E3X-MDA41 2M BY OMS
	E3X-NM41 5M BY OMS	E3X-MDA41 2M BY OMS
	E3X-NM11-4 BY OMS	E3X-MDA11 2M BY OMS
	E3X-NM16 BY OMS	None

E3X-NL series

Body color

Product discontinuation E3X-NL series	Recommendable replacement E3X-DA-S / E32 series
Amplifier unit E3X-NL11: Light gray	Amplifier unit E3X-DA21-S: Black Fiber unit E32-L25L: Black

Dimensions

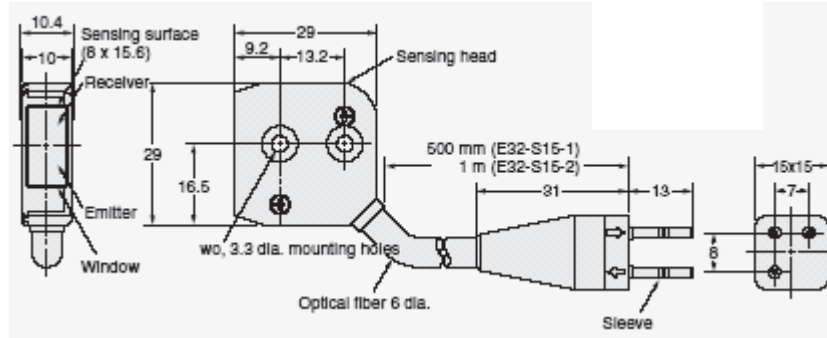
Product discontinuation E3X-NL series	Recommendable replacement E3X-DA-S series
<p>Amplifier unit E3X-NL11</p> <p>Operation indicator Stability indicator (A) (see note)</p> <p>Note: The mounting bracket can be attached to this side.</p> <p>Three, 2.5 dia.</p> <p>Two, 3.2 dia. holes</p> <p>Mounting bracket</p> <p>Two, holes</p>	<p>Amplifier unit E3X-DA21-S</p> <p>With Mounting Bracket Attached</p> <p>The Mounting Bracket can also be used on this side.</p> <p>Two, 2.4 dia.</p> <p>Hole for optical communications</p> <p>Mounting Bracket (E39-L143) SUS304 stainless steel</p> <p>Two, 3.2 dia. holes</p> <p>Two, M3 Mounting Holes</p>

Dimensions

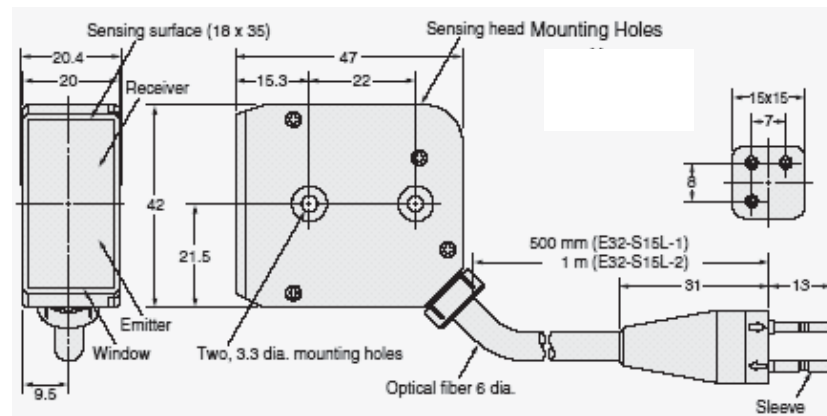
Product discontinuation E3X-NL series

Reference Fiber unit

E32-S15-□



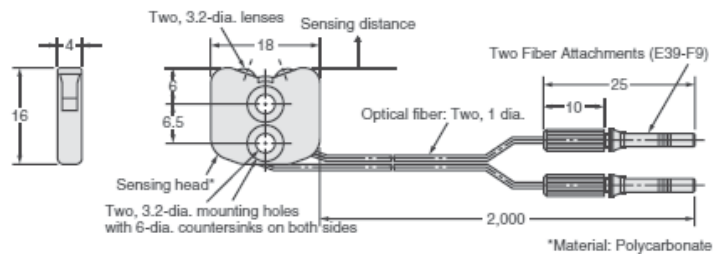
E32-S15L-□



Recommendable replacement E3X-DA-S series

Fiber unit

E32-L25L



Wire connection

Product discontinuation E3X-NL series	Recommendable replacement E3X-DA-S series

Mounting dimensions

Product discontinuation E3X-NL series	Recommendable replacement E3X-DA-S / E32 series
<p>Amplifier unit E3X-NL11</p> <ul style="list-style-type: none"> - Din track mounting - Screw mounting <p>Reference Fiber unit E32-S15-□</p>	<p>Amplifier unit E3X-DA21-S</p> <ul style="list-style-type: none"> - Din track mounting - Screw mounting <p>* Please confirm dimensions of appearance since the appearance will be changed even if the positions of mounting holes are the same.</p> <p>Fiber unit E32-L25L</p>

Operation methods

Product discontinuation E3X-NL series	Recommendable replacement E3X-DA-S series
Operation with slide switch and push button.	Operation with slide switch and push button.

Characteristics

Amplifier unit

Item	Product discontinuation	Recommended replacement
	E3X-NL11	E3X-DA21-S
Light source (wavelength)	Red LED (680 nm)	Red LED (625 nm)
Power supply voltage	12 to 24VDC \pm 10%, ripple (p-p) 10% max.	
Current consumption/ Power consumption	100 mA max	Normal mode: 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	30 VDC NPN open collector output, Load current: 100 mA max. (residual voltage: 1 V max.) Light-ON and Dark-ON switch selectable	26.4 VDC NPN open collector output, Load current: 50 mA max. (residual voltage: 1 V max.) Light-ON and Dark-ON switch selectable
Protection circuits	Power supply reserve polarity protection, output reserve polarity protection	Power supply reserve polarity protection, output short-circuit protection and output reserve polarity protection
Response time	Operate or reset: 1 ms max.	Super-high-speed mode: Operate or reset: 80 μ s (Mutual interference prevention and communication functions will be invalid) High-speed mode: Operate or reset: 250 μ s max. Standard mode: Operate or reset: 1 ms max. High-resolution mode: Operate or reset: 4 ms max. Tough mode: Operate or reset: 16 ms max.
Sensitivity setting	Teaching method	Teaching or manual method

Characteristics

Item	Product discontinuation	Recommended replacement
	E3X-NL11	E3X-DA21-S
Functions	Answer-back output, Remote teaching input	Power tuning, Different detection, APC, ATC, Zero reset, Resetting settings, Mutual interference prevention, ECO mode, External input setting, Output setting
Timer function	OFF-delay timer (fixed to 40 ms)	OFF-delay, ON-delay, One-shot, or ON-delay + OFF-delay timer 1 ms to 5 s
Ambient illumination (Receiver side)	Incandescent lamp: 3,000 lux max. Sunlight: 10,000 lux max.	Incandescent lamp: 10,000 lux max. Sunlight: 20,000 lux max.
Ambient temperature range	Operating: -25 to +55 °C Storage: -40 to +70 °C (with no icing or condensation)	Operating: Groups of 1 to 2 Amplifiers: -25 to +55 °C Groups of 1 to 3 to 10 Amplifiers: -25 to +50 °C Groups of 1 to 11 to 16 Amplifiers: -25 to +45 °C Storage: -30 to +70 °C (with no icing or condensation)
Ambient humidity range	Operating: 35% to 85% Storage: 35% to 95% (with no condensation)	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 or 300m/s ² for 2 hours each in X, Y, Z directions	Destruction: 10 to 55 Hz with a 1.5-mm double amplitude for 2 hours each in X, Y, Z directions
Shock resistance	Destruction: 500 m/s ² , for 3 times each in X, Y, Z directions	
Degree of protection	IEC 60529 IP50 (with Protective Cover attached)	
Connection method	Pre-wired model	
Materials	Case	Polybutylene terephthalate
	Cover	Polycarbonate
Accessories	Mounting bracket, Instruction manual	Instruction manual

Characteristics

Fiber unit

Item	Product discontinuation		Recommended replacement	
	Reference E32-S15-1 E32-S15-2	Reference E32-S15L-1 E32-S15L-2	E32-L25L	
Sensing distance	10± 3 mm	20 ± 7 mm	5.4 to 9 mm	
Min. sensing object	0.5 mm	2 mm	5 µm dia.	
Ambient temperature range	Operating:-25 to 55 °C Storage:-40 to 70 °C (with no icing or condensation)		Operating: -40 to 90 °C (For continuous operation) -40 to 105 °C (10 minute min.) Storage:-40 to 90 °C (with no icing or condensation)	
Ambient humidity range	Operating: 35% to 85% Storage: 35% to 90% (with no condensation)		Operating: 35% to 85% Storage: 35% to 95% (with no condensation)	
Permissible bending radius	4 mm min.		10 mm min.	
Degree of protection	IEC 60529 IP50			
Fiber length	E32-S15(L)-1: 500 mm E32-S15(L)-2: 1 m		2 m	
Material	Sensing head	Heat-resistant ABS plastics		Polycarbonate
	Sensing window	Transparent glass	Acrylic	Polycarbonate
	Fiber cladding	Urethane		Polyethylene

E3X-NM series

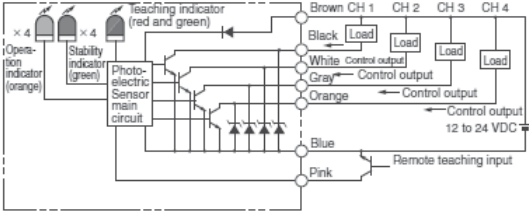
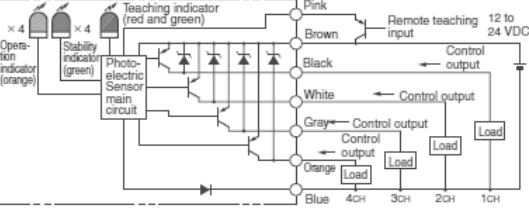
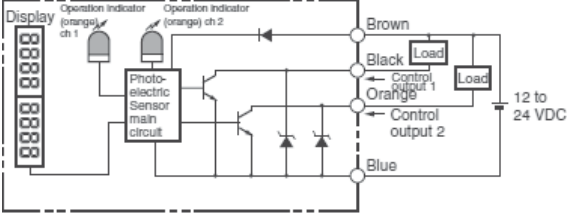
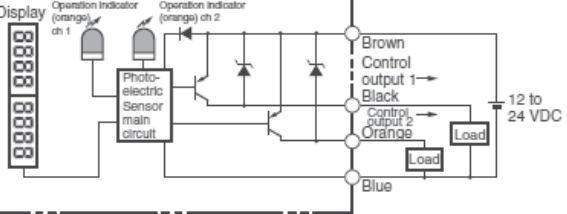
Body color

Product discontinuation	Recommendable replacement
E3X-NM series Color of case: Light gray	E3X-MDA series Color of case: Black

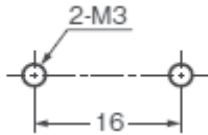
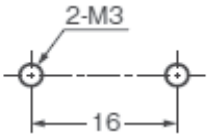
Dimensions

Product discontinuation E3X-NM series	Recommendable replacement E3X-MDA series
<p>E3X-NM series</p> <p>Operation indicator (orange) Stability indicator (green)</p> <p>Eight, 2.4 dia.</p> <p>Two, 3.2-dia. mounting holes Mounting bracket (removable), stainless steel (SUS 304)</p> <p>Two, mounting holes</p> <p>4-dia. vinyl insulated round cable with 7 conductors (Conductor cross section: 0.3 mm², Insulator diameter: 1.04 mm), Standard length: 2m</p>	<p>E3X-MDA series</p> <p>32.8 29.8 15.1 17.15 3.25 3.9x3=11.7</p> <p>4.3 70 37 12.5 10 5.65 4.5 4.5 9.9 3.4 18.7 28.1 4.4 36.8 16</p> <p>4-2.4 Dia.</p> <p>OPTICAL COMMUNICATION POSITION</p>

Wire connection

Product discontinuation E3X-NM series	Recommendable replacement E3X-MDA series
<p>E3X-NM11</p>  <p>E3X-NM41(-C1)</p> 	<p>E3X-MDA11</p>  <p>E3X-MDA41</p> 

Mounting dimensions

Product discontinuation E3X-NM series	Recommendable replacement E3X-MDA series
<ul style="list-style-type: none"> - Din track mounting - Screw mounting 	<ul style="list-style-type: none"> - Din track mounting - Screw mounting  <p>* Please confirm dimensions of appearance since the appearance will be changed even if the positions of mounting holes are the same.</p>

Operation methods

Product discontinuation E3X-NM series	Recommendable replacement E3X-MDA series
Operation with slide switch and push button.	Operation with slide switch and push button.

Characteristics

Amplifier unit

	Product discontinuation	Recommended replacement
NPN output PNP output	E3X-NM11	E3X-MDA11
	E3X-NM41	E3X-MDA41
Light source (wavelength)	Red LED (680 nm)	Red LED (635 nm)
Power supply voltage	12 to 24VDC \pm 10%, ripple (p-p) 10% max.	
Current consumption/ Power consumption	150 mA max	1,080 mW max (current consumption: 45 mA max. at power supply voltage of 24 VDC)
Control output	Load current: 100 mA max. (Residual voltage: 1 V max.) Open collector (NPN or PNP output, depending on the model)	Load power supply voltage: 26.4 VDC; NPN/PNP open collector; load current: 50 mA max.; residual voltage: 1 V max.
Protection circuits	Reverse polarity for power supply connection, output short-circuit	
Response time	Operating or reset: 500 μ s max. (at rated sensing distance)	Super-high-speed mode: Operate or reset: 130 μ s max. (When a differential output is selected, the second channel will become to 200 μ s, mutual interference prevention and communication functions will be invalid.) High-speed mode: Operate or reset: 250 μ s max. Standard mode: Operate or reset: 1 ms max. High-resolution mode: Operate or reset: 4 ms max.
Sensitivity setting	Teaching method	Teaching or manual method
Functions	Remote teaching input	Power tuning, Different detection, APC, Zero reset, Resetting settings, Output setting
Timer function	OFF-delay timer set to 40 ms (setting each channel)	OFF-delay, ON-delay or One-shot timer 1 ms to 5 s
Ambient illumination (Receiver side)	Incandescent lamp: 3,000 lux max. Sunlight: 10,000 lux max.	Incandescent lamp: 10,000 lux max. Sunlight: 20,000 lux max.

Characteristics

	Product discontinuation	Recommended replacement
NPN output	E3X-NM11	E3X-MDA11
PNP output	E3X-NM41	E3X-MDA41
Ambient temperature range	Operating: -25 to +55 °C Storage: -40 to +70 °C (with no icing or condensation)	Operating: Groups of 1 to 2 Amplifiers: -25 to +55 °C Groups of 1 to 3 to 10 Amplifiers: -25 to +50 °C Groups of 1 to 11 to 16 Amplifiers: -25 to +45 °C Storage: -30 to +70 °C (with no icing or condensation)
Ambient humidity range	Operating: 35% to 85% Storage: 35% to 95% (with no condensation)	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 or 300m/s ² for 2 hours each in X, Y, Z directions	Destruction: 10 to 55 Hz with a 1.5-mm double amplitude for 2 hours each in X, Y, Z directions
Shock resistance	Destruction: 500 m/s ² , for 3 times each in X, Y, Z directions	
Degree of protection	IEC 60529 IP50 (with Protective Cover attached)	
Connection method	Pre-wired model	
Materials	Case	Polybutylene terephthalate
	Cover	Polycarbonate
Accessories	Mounting brackets, Protective stickers for unused channels, Instruction sheet	Instruction manual