

NO: PX-057
DATE: April 2014

PRODUCT: E2EV All Metals Prox Sensor
TYPE: Discontinuation Notice

E2EV All Metals Detection Proximity Sensor to be Discontinued March 2015; Replace with E2V Series

Effective Date: March 2015

Reason for Discontinuation: Omron is streamlining the special application proximity sensor line by discontinuing legacy E2E series models that have become expensive to manufacture and have a low sales volume.



The feature set of the recommended replacement E2V meets customer expectations for power supply and output short circuit protection, standard colors of indicators, and a wider operating ambient temperature range.

Affected Parts

Product discontinuation	Recommended replacement
E2EV-X2B1 2M	E2V-X2B1 2M
E2EV-X2B2 2M	E2V-X2B2 2M
E2EV-X2C1 2M	E2V-X2C1 2M
E2EV-X2C1 5M	E2V-X2C1 5M
E2EV-X2C2 2M	E2V-X2C2 2M
E2EV-X2C2 5M	E2V-X2C2 5M
E2EV-X2E2-1 2M	No recommended replacement
E2EV-X5B1 2M	E2V-X5B1 2M
E2EV-X5B1 3M	E2V-X5B1 5M
E2EV-X5B1-M1J 0.3M	E2V-X8B1-M1TJ 0.3M
E2EV-X5B2 2M	E2V-X5B2 2M
E2EV-X5C1 2M	E2V-X5C1 2M
E2EV-X5C1 5M	E2V-X5C1 5M
E2EV-X5C1 20M	E2V-X8C1-M1
E2EV-X5C1 10M	E2V-X8C1-M1
E2EV-X5C1-40 5M	No recommended replacement
E2EV-X5C2 2M	E2V-X5C2 2M
E2EV-X5C2 5M	E2V-X5C2 5M
E2EV-X10B1 2M	E2V-X10B1 2M
E2EV-X10B1 5M	E2V-X10B1 5M
E2EV-X10B1 10M	E2V-X15B1-M1
E2EV-X10B2 2M	E2V-X10B2 2M
E2EV-X10C1 2M	E2V-X10C1 2M
E2EV-X10C1 5M	E2V-X10C1 5M
E2EV-X10C1 10M	E2V-X15C1-M1
E2EV-X10C1-M1J 0.3M	E2V-X15C1-M1TJ 0.3M
E2EV-X10C2 2M	E2V-X10C2 2M
E2EV-X10C2 5M	E2V-X10C2 5M
E2EV-X10C2 10M	E2V-X15C2-M1

Cautions on Applying Replacements

1. The E2V is RoHS compliant; E2EV was not compliant.
2. The sensing distance depends on the material of the sensing object.
3. The E2V Indicator lamp can be viewed from all directions; E2EV had a single spot indicator that needed careful positioning at installation to be monitored.
4. Indicator function for E2V changed to a yellow Operation Indicator; E2EV had a red Detection Indicator.
5. Reversed output polarity protection was added.
6. Some E2V models have a longer setting distance range than similar sized E2EV models.

Detail of Differences

Reference Documentation

Description	Media	Publication number
E2EV data sheet	PDF	CEDSAX4 E2EV
E2V data sheet	PDF	CSM E2V DS E 2 1

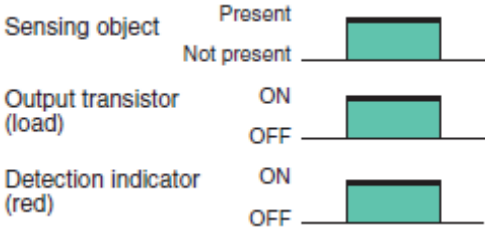
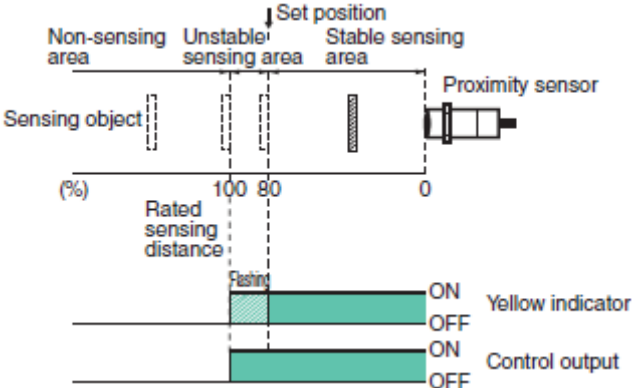

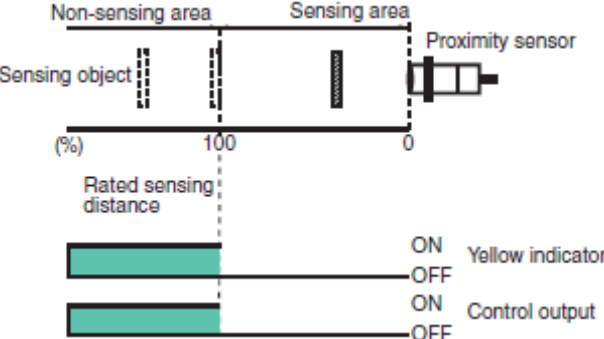
Body Color

Product discontinuation Model E2EV series	Recommended replacement Model E2V series
Color: Silver Materials Case: Brass, Nickel plated Sensing face: ABS resin Cord: Polyvinyl chloride insulation round cord outline diameter	Color: Silver Materials Case: Brass, Nickel plated Sensing face: ABS resin Cord: Polyvinyl chloride insulation round cord outline diameter



Wiring Diagrams

Product discontinuation Model E2EV series	Recommended replacement Model E2V series
<p>Output circuit E2EV-X□B□</p> <p>* Load current : 100Ma max.</p>	<p>Output circuit E2V-X□B□ (-M1 / -M1TJ)</p> <p>Note: Connector Models NO Models: ①④③ NC Models: ①②③</p> <p>M1: ②① M1TJ: ③④</p>
<p>E2EV-X□C□</p> <p>*Load current: 100 mA max.</p>	<p>E2V-X□C□ (-M1 / -M1TJ)</p> <p>Note: Connector Models NO Models: ①④③ NC Models: ①②③</p> <p>M1: ②① M1TJ: ③④</p>

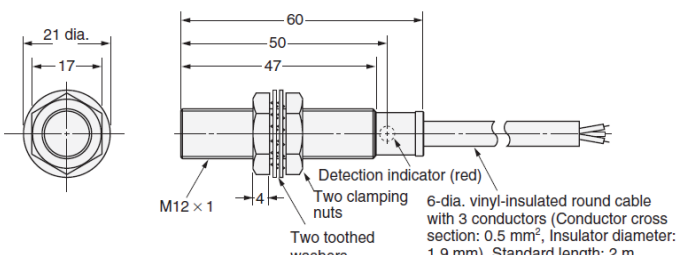
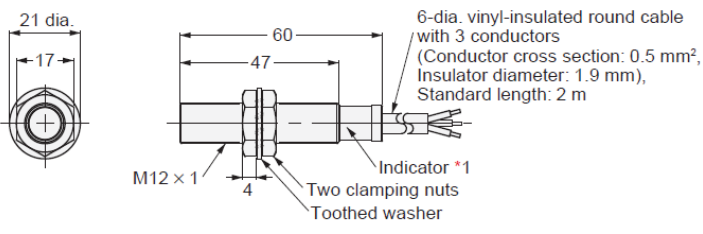
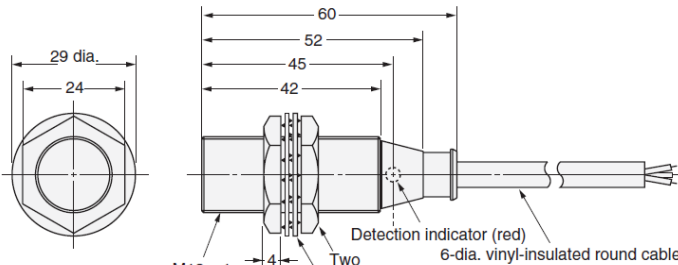
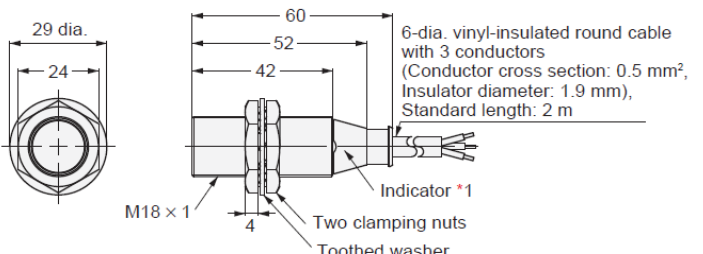
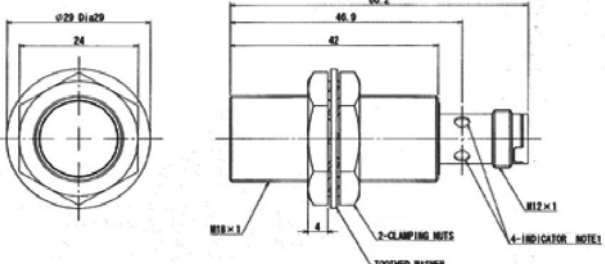
Timing Charts

Product discontinuation Model E2EV series	Recommended replacement Model E2V series
<p>E2EV-X□□1 NO Type</p> 	<p>E2V-X□□1 (-M1 / -M1TJ) NO Type</p> 
<p>E2EV-X□□2 NC Type</p> 	<p>E2V-X□□2 (-M1 / -M1TJ) NC Type</p> 

Indicator lamp

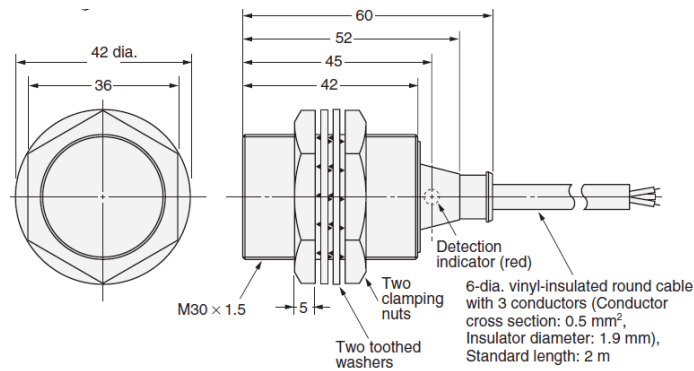
Product discontinuation Model E2EV series	Recommended replacement Model E2V series
 <p>Indicator is hard to see with a limited viewing angle</p>	 <p>The indicator is visible from any direction.</p> <p>180°</p> <p>E2V Pre-wired Models and Pre-wired Connector Models</p> <p>The indicator is visible from any direction.</p> <p>180°</p> <p>E2V Connector Models</p>

Dimensions

Product discontinuation Model E2EV series	Recommended replacement Model E2V series
<p>E2EV-X2B□ E2EV-X2C□</p> 	<p>E2V-X2B□ E2V-X2C□</p> 
<p>E2EV-X5B□ E2EV-X5C□</p> 	<p>E2V-X5B□ E2V-X5C□</p> 
	<p>E2V-X8C1-M1</p> 

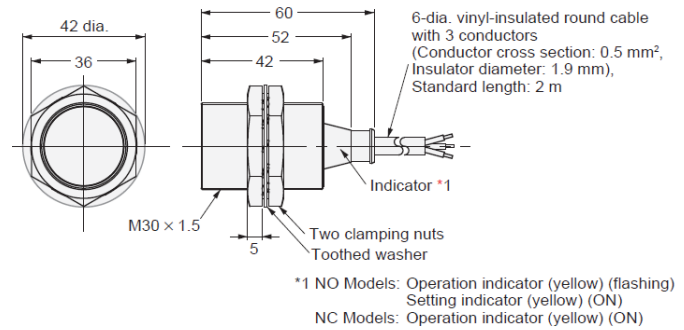
Product discontinuation
Model E2EV series

E2EV-X10B□
E2EV-X10C□

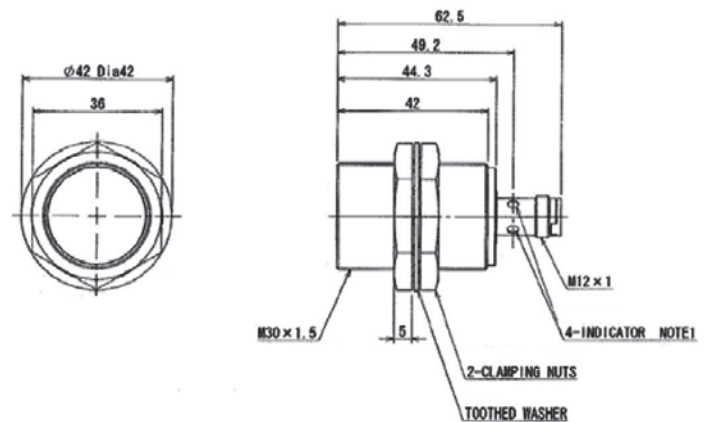


Recommended replacement
Model E2V series

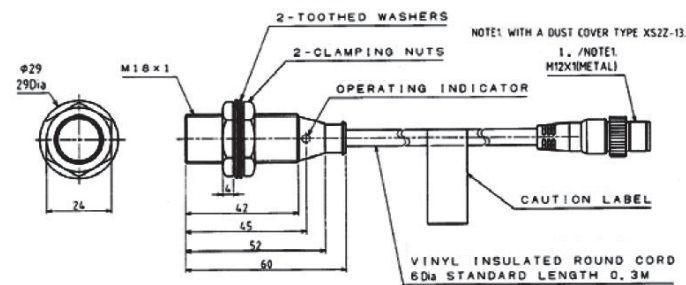
E2V-X10B□
E2V-X10C□



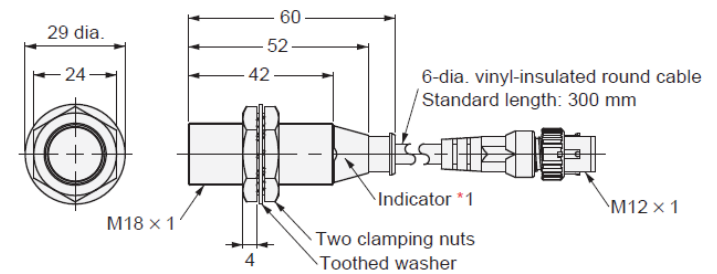
E2V-X15□1-M1



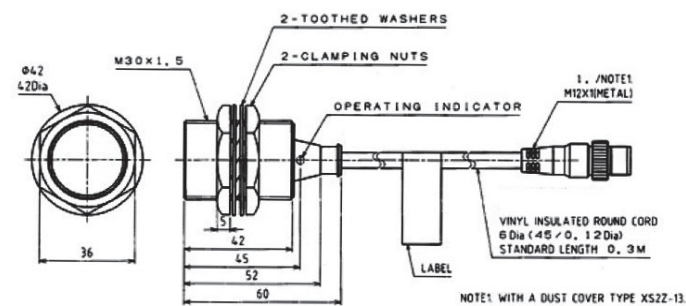
E2EV-X5□1-M1J



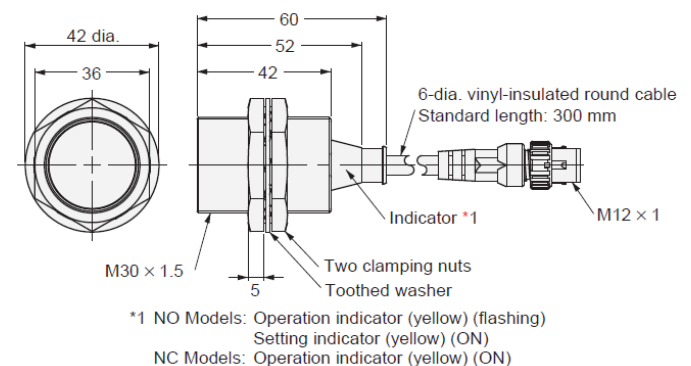
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E2EV-X10C1-M1J



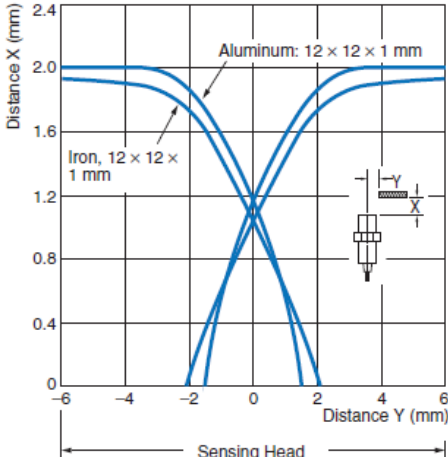
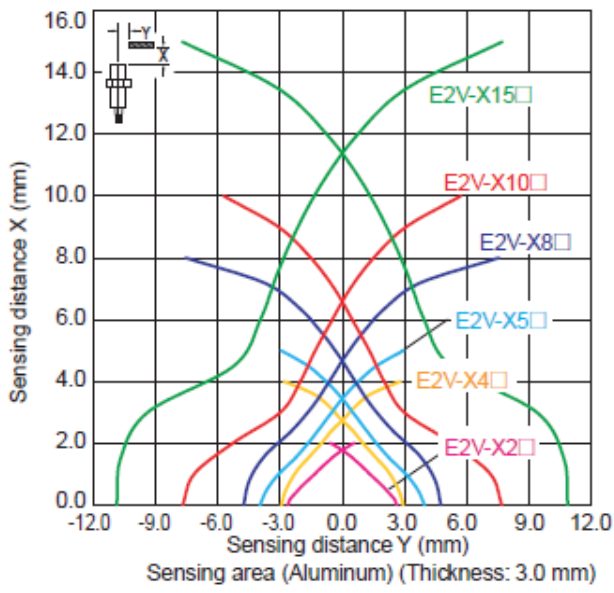
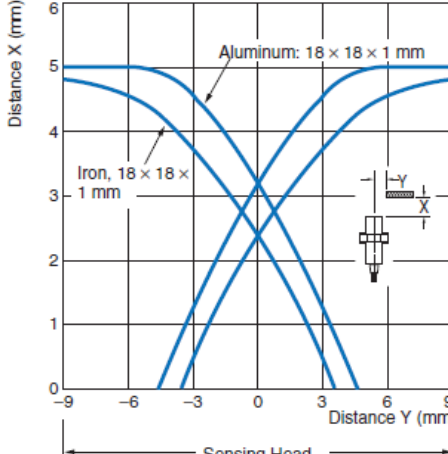
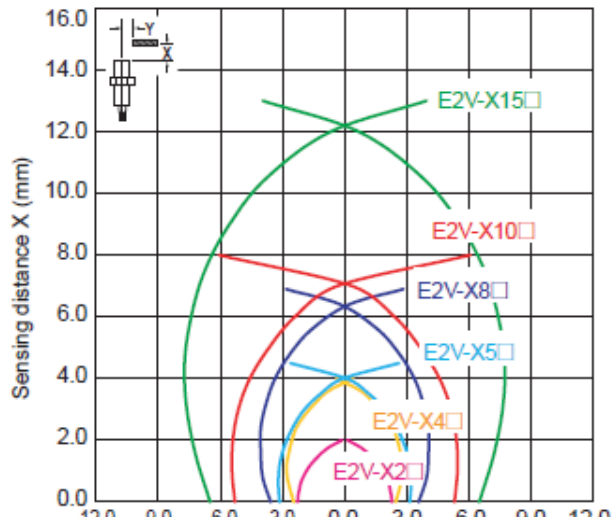
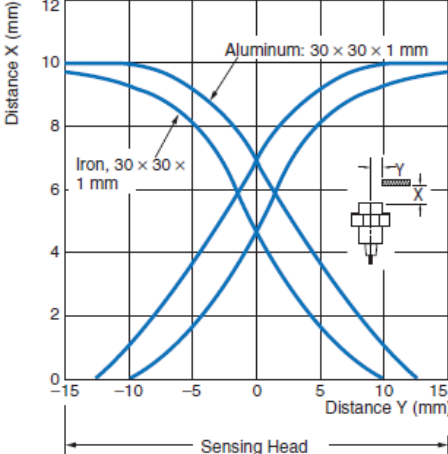
E2V-X15C1-M1TJ



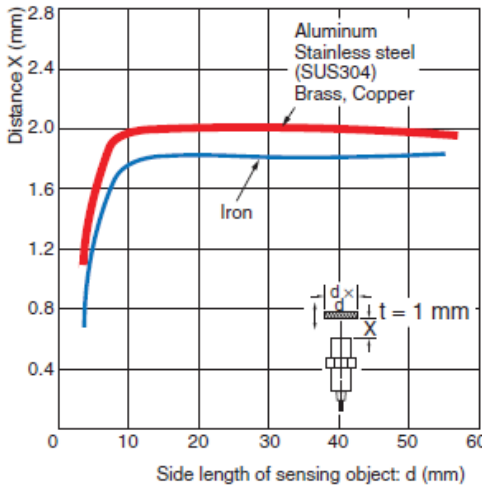
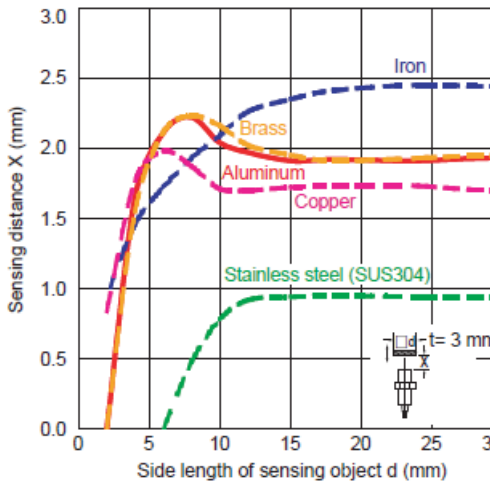
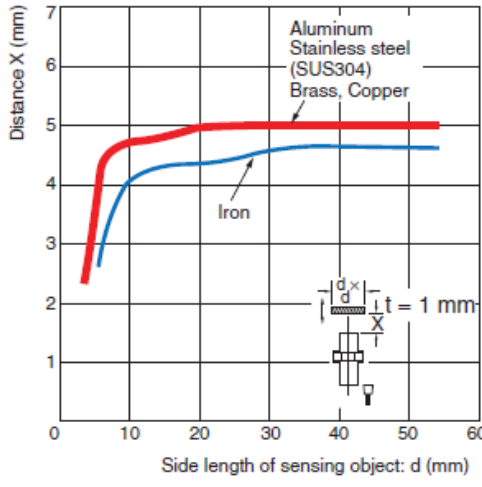
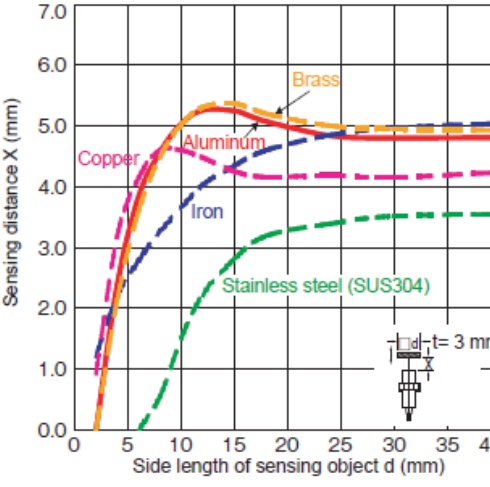
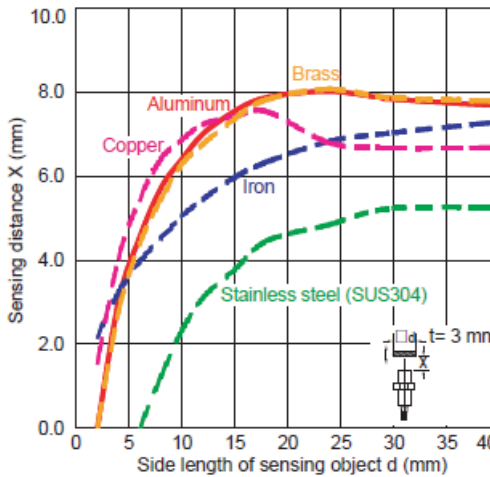
Characteristics

Item	Product discontinuation	Recommended replacement
	Model E2EV series	Model E2V series
Sensing distance	X2: 2 mm X5: 5 mm X10: 10 mm	X2: 2 mm X5: 5 mm X8: 8 mm X10: 10 mm X15: 15 mm
Setting distance	X2: 0 to 1.4 mm X5: 0 to 3.5 mm X10: 0 to 7 mm	X2: 0~1.6 mm X5: 0~4.0 mm X8: 0~6.4 mm X10: 0~8.0 mm X15: 0~12.0 mm
Differential distance	10% max	
Sensing object	Ferrous metal and non-ferrous metal	Ferrous metal and non-ferrous metal (The sensing distance depends on the material of the sensing object.)
Standard sensing object	Aluminum	Aluminum
	X2: 12×12×t1 mm X5: 18×18×t1 mm X10: 30×30×t1 mm	X2: 12×12×t3 mm X5: 18×18×t3 mm X8: 24×24×t3 mm X10: 30×30×t3 mm X15: 45×45×t3 mm
Response frequency	X2: 150 Hz X5, X10: 70 Hz	X2: 150 Hz X5: 70 Hz X8: 40 Hz X10: 70 Hz X15: 30 Hz
Power supply voltage	±10% max. 12 to 24 VDC (10 to 30 VDC)	
Leakage current	15 mA max	
Control output	100 mA max	
Indicator lamp	Detection Indicator (red)	NO Models: Operation indicator (yellow) (flashing) Setting indicator (yellow) (lit) NC Models: Operation indicator (yellow) (lit)
Operating status	NO: B1, C1 NC: B2, C2	
Protective circuits	Reverse polarity protection, Load short-circuit protection, Surge suppressor	Power supply reverse polarity protection, reversed output polarity protection, Load short-circuit protection, Surge suppressor
Ambient temperature	Operating, Storage: -10°C to +55°C (with no icing or condensation)	Operating, Storage: -25°C to +70°C (with no icing or condensation)
Ambient humidity	Operating, Storage: 35% to 95% (with no condensation)	
Temperature influence	±20% max. of sensing distance at 23°C in temperature range of -10°C to 55°C	X2, X5, X10: ±10% max. of sensing distance at 23°C in temperature range of -25°C to 70°C X8, X15: ±15% max. of sensing distance at 23°C in temperature range of -25°C to 70°C
Voltage influence	±2.5% max. of sensing distance in rated voltage range ±15%	±1.5% max. of sensing distance in rated voltage range ±15%
Insulation resistance	50 MΩ min. (500 VDC) between current carrying part and case	
Dielectric strength	1000 VAC 50/60 Hz for 1 minute between current carrying part and case	
Vibration resistance	10 to 55 Hz, 1.5-mm double amplitude for 2 hours each in X,Y, and Z directions	
Shock resistance	Destruction: 1000 m/s ² for 10 times each in X,Y, and Z directions	
Degree of protection	IEC60529 IP67 standards: oil-resistant (A direct connector type will be shuffled off.)	
Materials	Case: Brass, Nickel plated Sensing face: ABS resin	

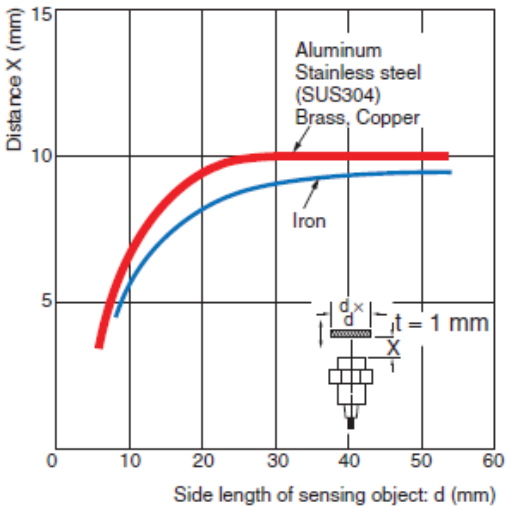
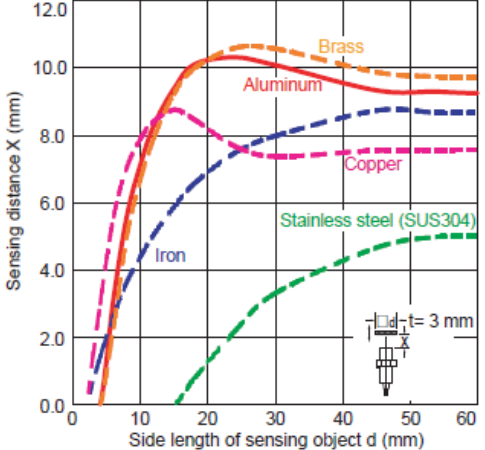
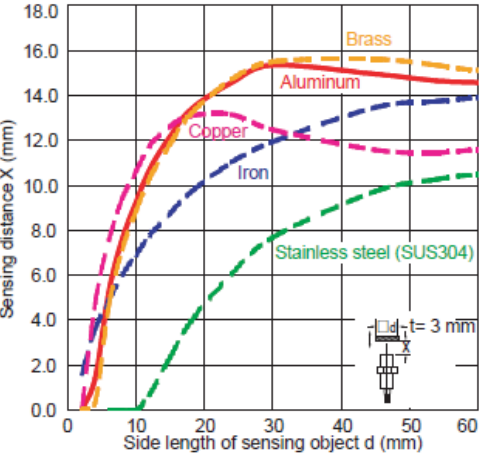
Operation Ratings

Product discontinuation	Recommended replacement
<p>Sensing Area Model E2EV-X2B□ Model E2EV-X2C□</p> 	<p>Sensing Area Model E2V series</p> 
<p>Model E2EV-X5B□ Model E2EV-X5C□</p> 	
<p>Model E2EV-X10B□ Model E2EV-X10C□</p> 	

Operation Ratings

Product discontinuation	Recommended replacement
<p>Influence with materials</p> <p>Model E2EV-X2B□ Model E2EV-X2C□</p>  <p>Distance X (mm)</p> <p>Side length of sensing object: d (mm)</p> <p>Aluminum Stainless steel (SUS304) Brass, Copper</p> <p>Iron</p> <p>$t = 1 \text{ mm}$</p>	<p>Influence with materials</p> <p>Model E2V-X2B□ Model E2V-X2C□</p>  <p>Sensing distance X (mm)</p> <p>Side length of sensing object d (mm)</p> <p>Iron</p> <p>Brass</p> <p>Aluminum</p> <p>Copper</p> <p>Stainless steel (SUS304)</p> <p>$t = 3 \text{ mm}$</p>
<p>Model E2EV-X5B□ Model E2EV-X5C□</p>  <p>Distance X (mm)</p> <p>Side length of sensing object: d (mm)</p> <p>Aluminum Stainless steel (SUS304) Brass, Copper</p> <p>Iron</p> <p>$t = 1 \text{ mm}$</p>	<p>Model E2V-X5B□ Model E2V-X5C□</p>  <p>Sensing distance X (mm)</p> <p>Side length of sensing object d (mm)</p> <p>Brass</p> <p>Copper</p> <p>Aluminum</p> <p>Iron</p> <p>Stainless steel (SUS304)</p> <p>$t = 3 \text{ mm}$</p>
	<p>Model E2V-X8C1</p>  <p>Sensing distance X (mm)</p> <p>Side length of sensing object d (mm)</p> <p>Brass</p> <p>Aluminum</p> <p>Copper</p> <p>Iron</p> <p>Stainless steel (SUS304)</p> <p>$t = 3 \text{ mm}$</p>

Operation Ratings

Product discontinuation	Recommended replacement
<p>Model E2EV-X10B□ Model E2EV-X10C□</p>  <p>Distance X (mm)</p> <p>Side length of sensing object: d (mm)</p> <p>Aluminum Stainless steel (SUS304) Brass, Copper Iron</p> <p>$t = 1 \text{ mm}$</p>	<p>Model E2V-X10B□ Model E2V-X10C□</p>  <p>Sensing distance X (mm)</p> <p>Side length of sensing object d (mm)</p> <p>Brass Aluminum Copper Iron Stainless steel (SUS304)</p> <p>$t = 3 \text{ mm}$</p>
	<p>Model E2V-X15C1</p>  <p>Sensing distance X (mm)</p> <p>Side length of sensing object d (mm)</p> <p>Brass Aluminum Copper Iron Stainless steel (SUS304)</p> <p>$t = 3 \text{ mm}$</p>

Specifications and prices in this product news are as of the issue date and are subject to change without notice. Only main changes in specifications are described in this document. Please be sure to read the relevant catalogs, datasheets, product specifications, instructions, and manuals for precautions and necessary information when using products