



- \*\* : Compatible  
 \* : The change is a little/Almost compatible  
 -- : Not compatible  
 - : No corresponding specification

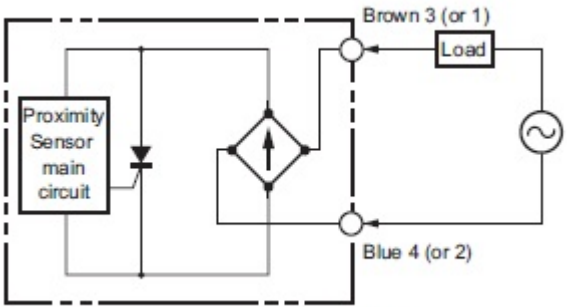
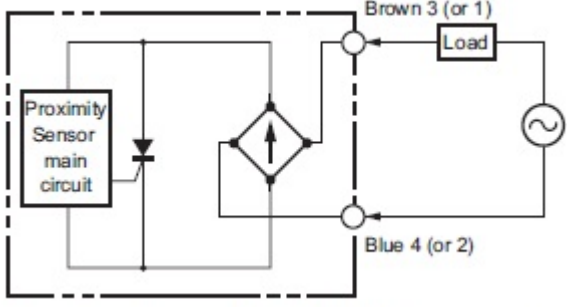
**[ Product Discontinuation and recommended replacement ]**

<b>Product discontinuation</b>	<b>Recommended replacement</b>
E2E-X2MY2-Z 5M OMS	E2E-X5MY2-Z 5M OMS
E2E-X2MY2-Z 2M OMS	E2E-X5MY2-Z 2M OMS
E2E-X2MY1-Z 5M OMS	E2E-X5MY1-Z 5M OMS
E2E-X2MY1-Z 2M OMS	E2E-X5MY1-Z 2M OMS
E2E-X1R5Y2-Z 5M OMS	E2E-X2Y2-Z 5M OMS
E2E-X1R5Y2-Z 2M OMS	E2E-X2Y2-Z 2M OMS
E2E-X1R5Y2-Z 10M OMS	E2E-X2Y2-Z 10M OMS
E2E-X1R5Y1-Z 5M OMS	E2E-X2Y1-Z 5M OMS
E2E-X1R5Y1-Z 2M OMS	E2E-X2Y1-Z 2M OMS
E2E-X1R5Y1-R-Z 5M OMS	E2E-X2Y1-R-Z 5M OMS
E2E-X1R5Y1-R-Z 2M OMS	E2E-X2Y1-R-Z 2M OMS
E2F-X1R5Y2 2M	E2F-X2Y2 2M
E2F-X1R5Y1 5M	E2F-X2Y1 5M
E2F-X1R5Y1 2M	E2F-X2Y1 2M
E2F-X1R5Y1 15M	E2F-X2Y1 15M
E2F-X1R5Y1 10M	E2F-X2Y1 10M
E2E-X2MY2 5M	E2E-X5MY2 5M
E2E-X2MY2 2M	E2E-X5MY2 2M
E2E-X2MY1-R 2M	E2E-X5MY1-R 2M
E2E-X2MY1 5M	E2E-X5MY1 5M
E2E-X2MY1 2M	E2E-X5MY1 2M
E2E-X1R5Y2 5M	E2E-X2Y2 5M
E2E-X1R5Y2 2M	E2E-X2Y2 2M
E2E-X1R5Y2 10M	E2E-X2Y2 10M
E2E-X1R5Y1-R 5M	E2E-X2Y1-R 5M
E2E-X1R5Y1-R 2M	E2E-X2Y1-R 2M
E2E-X1R5Y1 5M	E2E-X2Y1 5M
E2E-X1R5Y1 2M	E2E-X2Y1 2M
E2E-X1R5Y1 20M	No recommended replacement

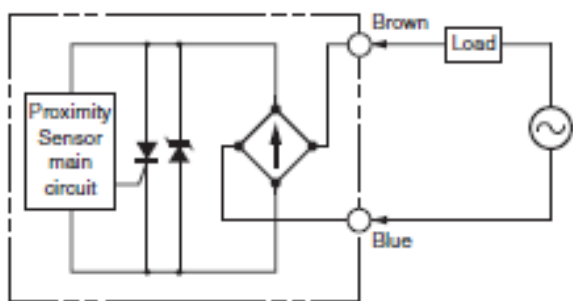
[ Body color ]

<p><b>Product discontinuation</b> <b>Model E2E M8 size AC type</b></p>	<p><b>Recommendable replacement</b> <b>Model E2E M12 size AC type</b></p>
<p>Body: Cylinder type (with screw) Case: Stainless steel (SUS303)</p> 	<p>Body: Cylinder type (with screw) Case: Brass nickel plating</p> 
<p><b>Product discontinuation</b> <b>Model E2F M8 size AC type</b></p>	<p><b>Recommendable replacement</b> <b>Model E2F M12 size AC type</b></p>
<p>Body: Cylinder type (with screw; without name plate) Case: Polyarylate</p> 	<p>Body: Cylinder type (with screw) Case: Polyarylate</p> 

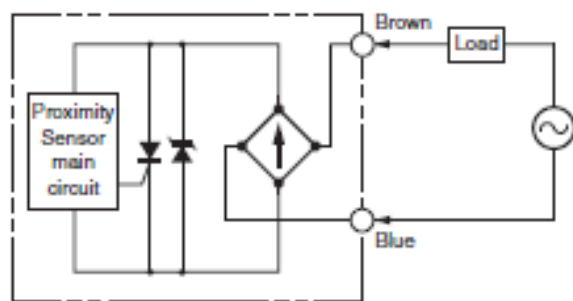
[ Wire connection ]

<p><b>Product discontinuation</b> <b>Model E2E M8 size AC type</b></p>	<p><b>Recommendable replacement</b> <b>Model E2E M12 size AC type</b></p>
<p><b>Output Circuit Diagrams</b></p> 	<p><b>Output Circuit Diagrams</b></p> 
<p><b>Product discontinuation</b> <b>Model E2F M8 size AC type</b></p>	<p><b>Recommendable replacement</b> <b>Model E2F M12 size AC type</b></p>

### Output Circuit Diagrams



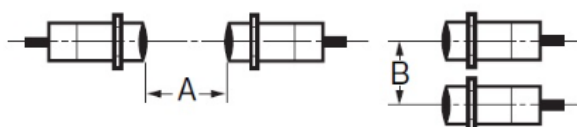
### Output Circuit Diagrams



### [ Mounting dimensions ]

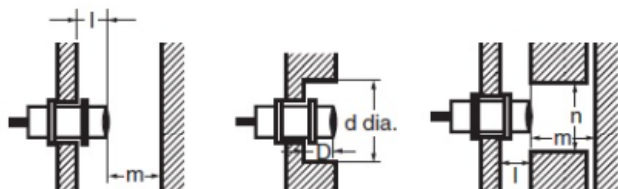
#### Product discontinuation Model E2E/E2F M8 size AC type

##### Mutual interference



A: 20 mm min., B: 15 mm min.

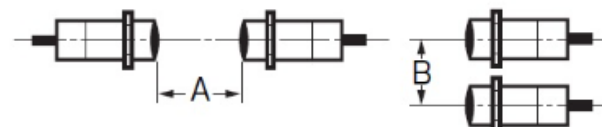
##### Effects of surrounding metals



l: 0 mm min., dia. d: 8 mm min., D: 0 mm min., m: 4.5 mm min., n: 12 mm min.

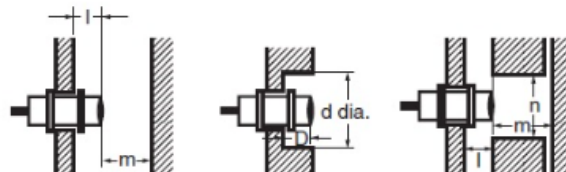
#### Recommendable replacement Model E2E/E2F M12 size AC type

##### Mutual interference



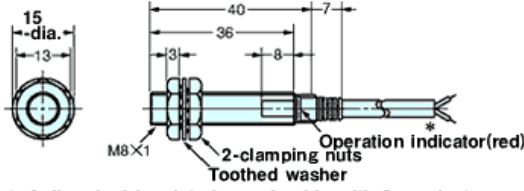
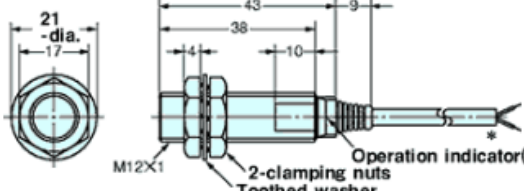
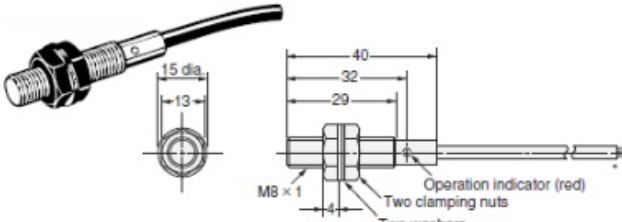
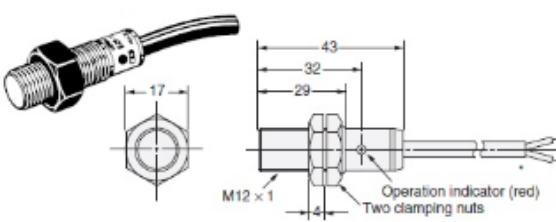
A: 30 mm min., B: 20 mm min.

##### Effects of surrounding metals



l: 0 mm min., dia. d: 12 mm min., D: 0 mm min., m: 8 mm min., n: 18 mm min.

## [ Dimensions ]

<p align="center"><b>Product discontinuation Model E2E M8 size AC type</b></p>  <p>* 4-dia. vinyl-insulated round cable with 2 conductors (Conductor cross section: 0.3 mm<sup>2</sup>, Insulator diameter: 1.3 mm) Standard length: 2m The cable can be extended (separate metal conduit) up to 200 m.</p>	<p align="center"><b>Recommendable replacement Model E2E M12 size AC type</b></p>  <p>* 4-dia. vinyl-insulated round cable with 2 conductors (Conductor cross section: 0.3 mm<sup>2</sup>, Insulator diameter: 1.3 mm) Standard length: 2m The cable can be extended (separate metal conduit) up to 200 m.</p>
<p align="center"><b>Product discontinuation Model E2F M8 size AC type</b></p>  <p>* 3.5-dia. vinyl-insulated round cable with 2 conductors (Conductor cross section: 0.14 mm<sup>2</sup>, Insulator diameter: 1 mm), Standard length: 2 m The cable can be extended up to 200 m (separate metal conduit).</p>	<p align="center"><b>Recommendable replacement Model E2F M12 size AC type</b></p>  <p>* 6-dia. vinyl-insulated round cable with 2 conductors (Conductor cross section: 0.5 mm<sup>2</sup>, Insulator diameter: 1.9 mm), Standard length: 2 m The cable can be extended up to 200 m (separate metal conduit).</p>

## [ Characteristics ]

Item	Product discontinuation Model E2E/E2F M8 size AC type	Recommendable replacement Model E2E/E2F M12 size AC type
Sensing head size	M8	M12
Type	Cylinder type (with screw), E2E/E2F-X1R5Y1/2:Shielded E2E-X2MY1/2:Unshielded	Cylinder type (with screw), E2E/E2F-X2Y1/2:Shielded E2E-X5MY1/2:Unshielded
Sensing distance	E2E/E2F-X1R5Y1/2:1.5 mm ±10% E2E-X2MY1/2:2 mm ±10%	E2E/E2F-X2Y1/2:2 mm ±10% E2E-X5MY1/2:5 mm ±10%
Setting distance	E2E/E2F-X1R5Y1/2:0 to 1.2 mm E2E-X2MY1/2: 0 to 1.6 mm	E2E/E2F-X2Y1/2:0 to 1.6 mm E2E-X5MY1/2: 0 to 4 mm
Differential distance	10% max. of sensing distance	10% max. of sensing distance
Sensing object	Ferrous metal (Sensitivity lowers with non-ferrous metals.)	Ferrous metal (Sensitivity lowers with non-ferrous metals.)
Standard sensing object	E2E/E2F-X1R5Y1/2: Iron 8 x 8 x 1 mm E2E-X2MY1/2: Iron 12 x 12 x 1 mm	E2E/E2F-X2Y1/2: Iron 12 x 12 x 1 mm E2E-X5MY1/2: Iron 15 x 15 x 1 mm
Response frequency	25 Hz	25 Hz
Power source	AC 2-wire models	AC 2-wire models
Power supply voltage	24 to 240 VAC	24 to 240 VAC

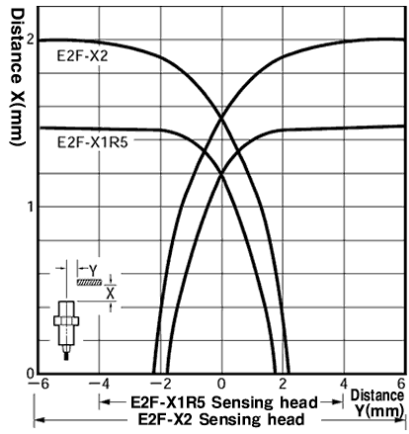
Item	Product discontinuation Model E2E/E2F M8 size AC type	Recommendable replacement Model E2E/E2F M12 size AC type
Operating voltage range	20 to 264 VAC	20 to 264 VAC
Leakage current	1.7 mA max.	1.7 mA max.
Control output (Switching capacity)	5 to 100 mA	5 to 200 mA
Indicator	Operation indicator (red)	Operation indicator (red)
Operation mode	Y1:NO;Y2:NC	Y1:NO;Y2:NC
Protective circuit	E2E:Surge suppressor;E2F:none	E2E:Surge suppressor;E2F:none
Ambient temperature	Operating: -25 to 70°C Storage: -25 to 70°C	E2E: Operating: -40 to 85°C Storage: -40 to 85°C E2F: Operating: -25to 70°C Storage: -25 to 70°C
Ambient humidity	Operating: 35 to 95% Storage: 35 to 95%	Operating: 35 to 95% Storage: 35 to 95%
Temperature influence	±10% max. of sensing distance at 23 °C in the temperature range of -25 to 70 °C	E2E: ±10% max. of sensing distance at 23 °C in the temperature range of -25 to 70 °C ±15% max. of sensing distance at 23 °C in the temperature range of -40 to 85 °C E2F: ±10% max. of sensing distance at 23 °C in the temperature range of -25 to 70 °C
Voltage influence	±1% max. of sensing distance at rated voltage in the rated voltage ±15% range	E2E: ±1% max. of sensing distance at rated voltage in the rated voltage ±15% range E2F: ±1% max. of sensing distance at rated voltage in the rated voltage ±10% range
Insulation resistance	Between charged parts and the case: 50 MΩ min. at 500 VDC	Between charged parts and the case: 50 MΩ min. at 500 VDC
Dielectric strength	Between charged parts and the case: 2,000 VAC 50/60 Hz for 1 min	Between charged parts and the case: 4,000 VAC 50/60 Hz for 1 min
Vibration resistance	Destruction: 10 to 55 Hz, 1.5 mm double amplitude each in X, Y, and Z directions for 2 h	Destruction: 10 to 55 Hz, 1.5 mm double amplitude each in X, Y, and Z directions for 2 h
Shock resistance	E2E: Destruction: 500 m/s**2 10 times each in X, Y, and Z directions E2F: Destruction: 1000 m/s**2 10 times each in X, Y, and Z directions	Destruction: 1000 m/s**2 10 times each in X, Y, and Z directions
Degree of protection	E2E: IEC: IP67 E2F: IEC: IP68 Company standard: Oil-proof	E2E: IEC: IP67 E2F: IEC: IP68 Company standard: Oil-proof
Connection method	Pre-wired models	Pre-wired models
Weight	E2E: Package: Approx. 60 g E2F: Package: Approx. 40 g	E2E: Package: Approx. 70 g E2F: Package: Approx. 50 g
Material	E2E:	E2E:

Item	Product discontinuation Model E2E/E2F M8 size AC type	Recommendable replacement Model E2E/E2F M12 size AC type
	<b>Case: Stainless steel (SUS303)</b> <b>Sensing surface: Polybutylene terephthalate (PBT)</b> <b>Clamping nuts: Brass nickel plating</b> <b>Toothed washers: Iron zinc plating</b> <b>E2F:</b> <b>Case: Polyarylate</b> <b>Sensing surface: Polyarylate</b> <b>Clamping nuts: Polyacetal</b>	<b>Case: Brass nickel plating</b> <b>Sensing surface: Polybutylene terephthalate (PBT)</b> <b>Clamping nuts: Brass nickel plating</b> <b>Toothed washers: Iron zinc plating</b> <b>E2F:</b> <b>Case: Polyarylate</b> <b>Sensing surface: Polyarylate</b> <b>Clamping nuts: Polyacetal</b>
<b>Accessories</b>	<b>Instruction manual</b>	<b>Instruction manual</b>

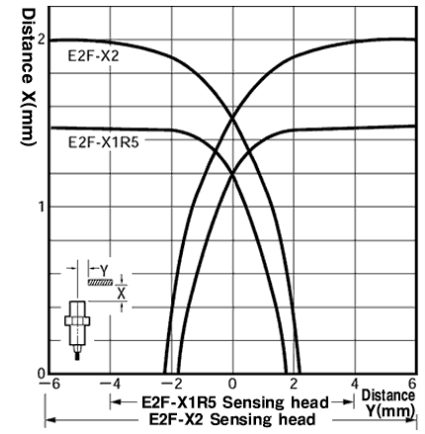
### [ Operation ratings ]

Product discontinuation Model E2E/E2F M8 size AC type	Recommendable replacement Model E2E/E2F M12 size AC type
<p>Sensing distance vs. size and material of sensing object</p> <p>Sensing range</p>	<p>Sensing distance vs. size and material of sensing object</p> <p>Sensing range</p>

**Product discontinuation**  
**Model E2E/E2F M8 size AC type**

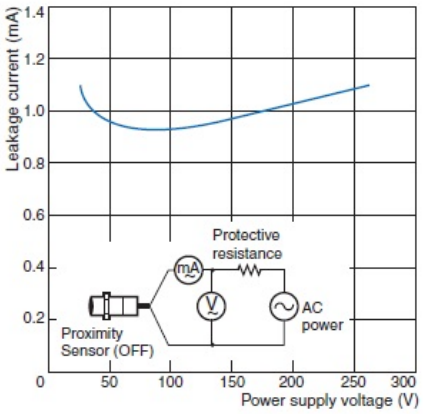


**Recommendable replacement**  
**Model E2E/E2F M12 size AC type**



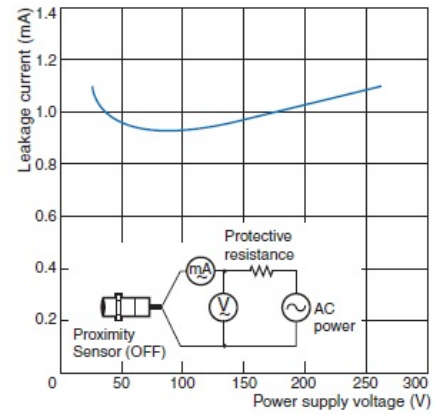
Leakage current

**E2E-X□Y□**



Leakage current

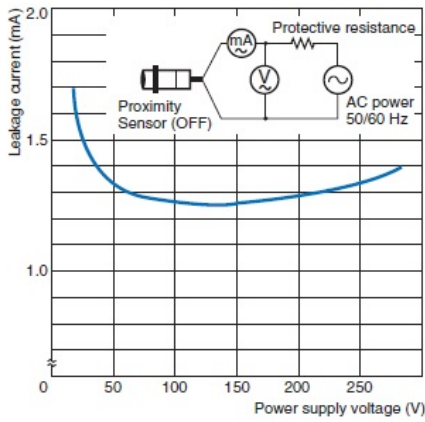
**E2E-X□Y□**





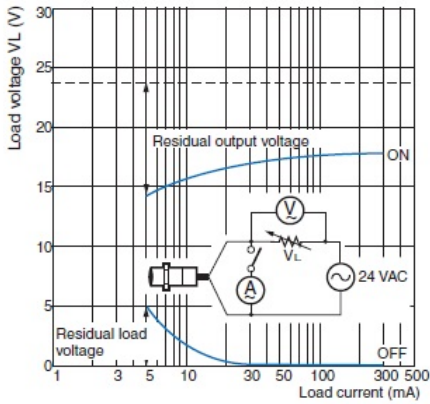
**Product discontinuation**  
**Model E2E/E2F M8 size AC type**

**E2F-X□Y□**

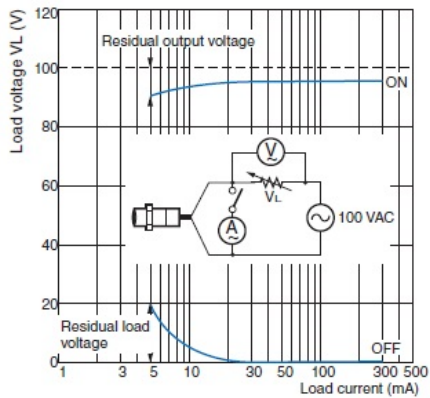


Residual voltage

**E2E-X□Y□ at 24 VAC**

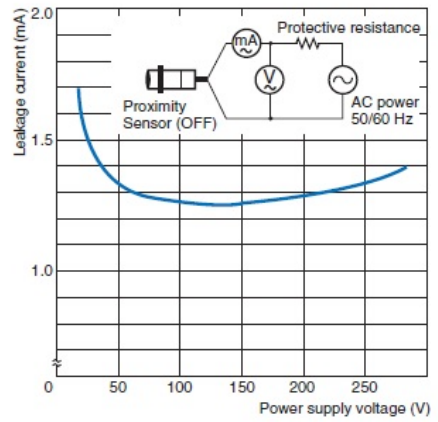


**E2E-X□Y□ at 100 VAC**



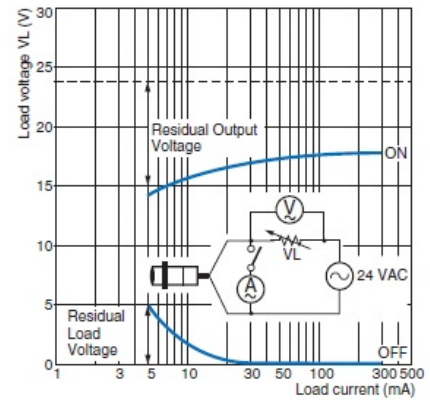
**Recommendable replacement**  
**Model E2E/E2F M12 size AC type**

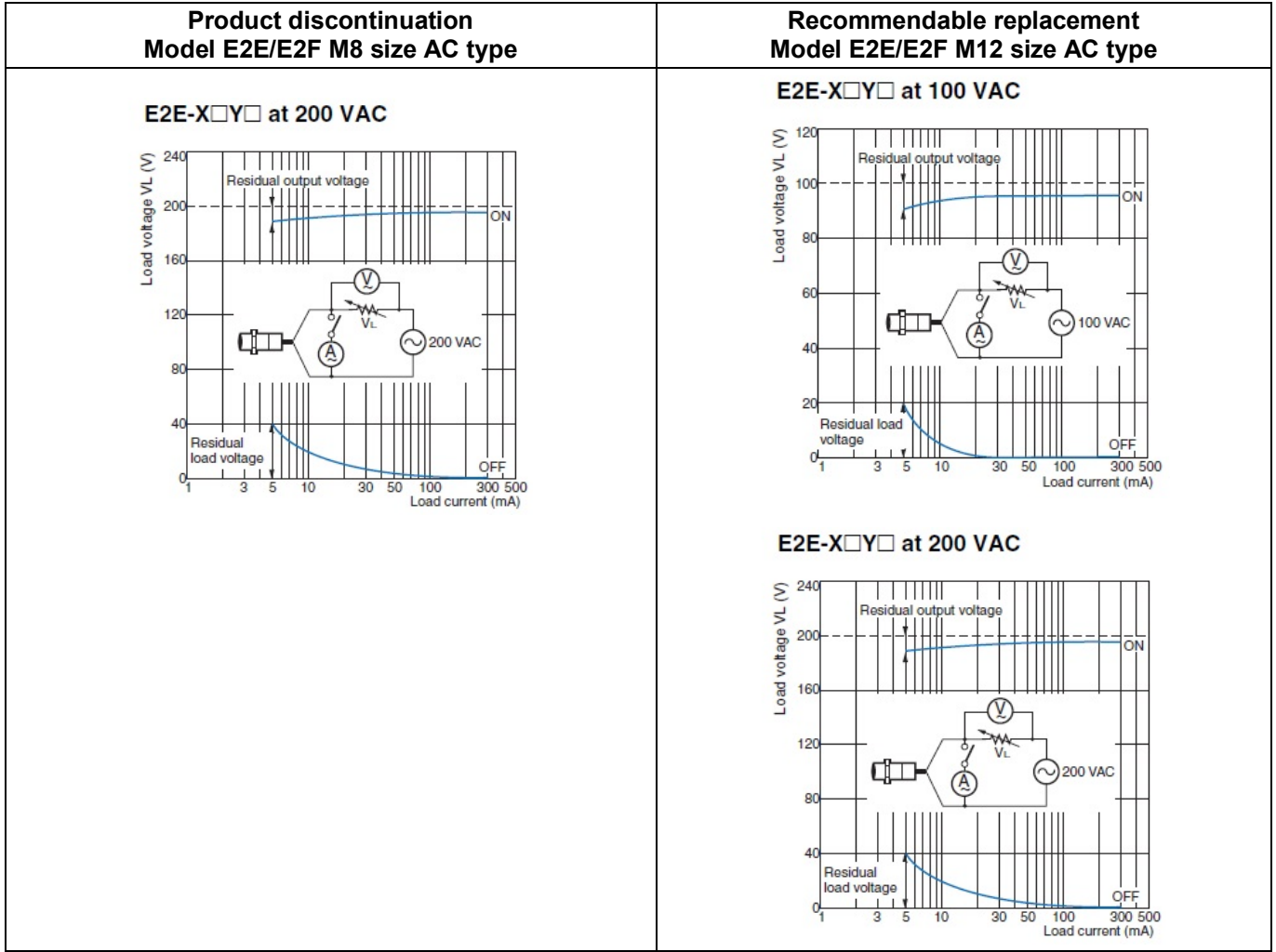
**E2F-X□Y□**



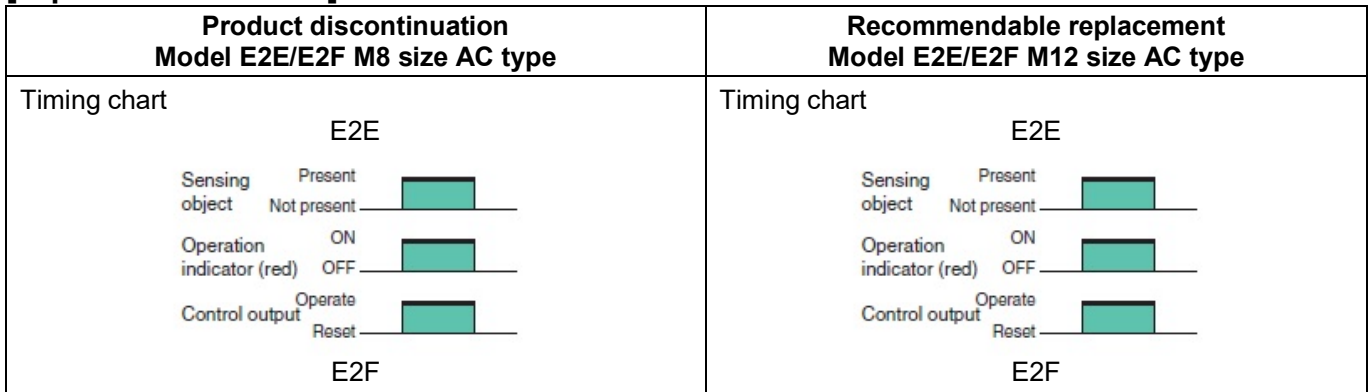
Residual voltage

**E2F-X□Y□ at 24 VAC**





**[ Operation methods ]**



Product discontinuation Model E2E/E2F M8 size AC type		Recommendable replacement Model E2E/E2F M12 size AC type																	
NO	<table border="1"> <thead> <tr> <th colspan="2">Timing Chart</th> </tr> </thead> <tbody> <tr> <td>Sensing object</td> <td>Yes No </td> </tr> <tr> <td>Load</td> <td>Operate Reset </td> </tr> <tr> <td>Operation indicator (red)</td> <td>ON OFF </td> </tr> </tbody> </table>	Timing Chart		Sensing object	Yes No	Load	Operate Reset	Operation indicator (red)	ON OFF	NO	<table border="1"> <thead> <tr> <th colspan="2">Timing Chart</th> </tr> </thead> <tbody> <tr> <td>Sensing object</td> <td>Yes No </td> </tr> <tr> <td>Load</td> <td>Operate Reset </td> </tr> <tr> <td>Operation indicator (red)</td> <td>ON OFF </td> </tr> </tbody> </table>	Timing Chart		Sensing object	Yes No	Load	Operate Reset	Operation indicator (red)	ON OFF
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