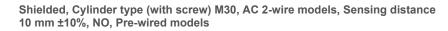
# E2E-X10Y1 2M





Sensing head size	M30
Туре	Cylinder type (with screw), Shielded
Power source	AC 2-wire models
Sensing distance	10 mm ±10%
Setting distance	0 to 8 mm
Operation mode	NO

Image

Ratings/Performance

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Sensing head size	M30
Туре	Cylinder type (with screw), Shielded
Power source	AC 2-wire models
Sensing distance	10 mm ±10%
Setting distance	0 to 8 mm
Differential distance	10% max. of sensing distance
Sensing object	Ferrous metal (Sensitivity lowers with non-ferrous metals.)
Standard sensing object	Iron 30 x 30 x 1 mm
Response frequency	25 Hz
Power supply voltage	24 to 240 VAC
Operating voltage range	20 to 264 VAC
Leakage current	1.7 mA max.
Control output (Switching capacity)	5 to 300 mA
Indicator	Operation indicator (red)
Operation mode	NO
Protective circuit	Surge suppressor
Ambient temperature (Operating)	-40 to 85 ℃
Ambient temperature (Storage)	-40 to 85 °C
Ambient humidity (Operating)	35 to 95% RH
Ambient humidity (Storage)	35 to 95% RH
Temperature influence	$\pm 10\%$ max. of sensing distance at 23 $^{\circ}\mathrm{C}$ in the temperature range of -25 to 70 $^{\circ}\mathrm{C}$ $\pm 15\%$ max. of sensing distance at 23 $^{\circ}\mathrm{C}$ in the temperature range of -40 to 85 $^{\circ}\mathrm{C}$
Voltage influence	±1% max. of sensing distance at rated voltage in the rated voltage ±15% range
Insulation resistance	Between charged parts and the case: 5 MΩ min. at 500 VDC
Dielectric strength	Between charged parts and the case: 4,000 VAC 50/60 Hz 1 min
Vibration resistance	Destruction: 10 to 55 Hz, 1.5 mm double amplitude each in X, Y, and Z directions fo

	2 h
Shock resistance	Destruction: 1000 m/s <sup>2</sup> 10 times each in X, Y, and Z directions
Degree of protection	IEC: IP67 Company standard: Oil-proof
Connection method	Pre-wired models (2 m)
Weight	Package: Approx. 175 g
Material	Case: Brass nickel plating Sensing surface: Polybutylene terephthalate (PBT) Clamping nuts: Brass nickel plating Toothed washers: Iron zinc plating
Accessories	Instruction manual

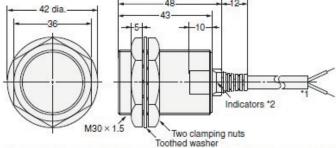
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**Dimensions** 

Dimensions

As of July 16, 2020

## E2E-X10D\(\text{\textsize}/\text{F}\) E2E-X10Y\(\subseteq\)/E2E-X10T1



- \*1. 6-dia. vinyl-insulated round cable with 2 conductors (Conductor cross section: 0.5 mm²,
  - Insulator diameter: 1.9 mm), Standard length: 2 m 6-dia. vinyl-insulated round cable with 3 conductors (Conductor cross section: 0.5 mm², Insulator diameter: 1.9 mm), Standard length: 2 m

Robotics Cable Models:

- Hobbits Cable Models:
  6-dia. vinyl-insulated round cable with 2 conductors (Conductor cross section: 0.5 mm², Insulator diameter: 1.74 mm), Standard length: 2 m
  6-dia. vinyl-insulated round cable with 3 conductors (Conductor cross section: 0.5 mm², Insulator diameter: 1.74 mm), Standard length: 2 m

Models with Highly Oil-resistant:

- 6-dia. polyurethane-insulated round cable with 2 conductors (Conductor cross section: 0.5 mm2, Insulator diameter: 1.9 mm), Standard length: 2 m
- The cable can be extended (separate metal conduit) up to 200 m for the control output
- and up to 100 m for the diagnostic output.

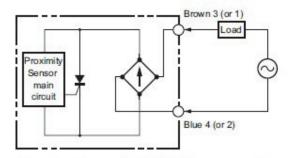
  \*2. D1/T Models: Operation indicator (red), Setting indicator (green)
  D2/E/F/Y Models: Operation indicator (red)

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**Output circuit** 

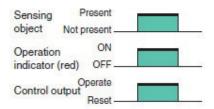
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Output circuit



Note: For Connector Models, the connection between pins 3 and 4 uses an NO contact, and the connection between pins 1 and 2 uses an NC contact.

## Timing chart

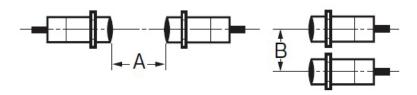


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#### Mutual interference

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#### Mutual interference



A: 100 mm min., B: 70 mm min.

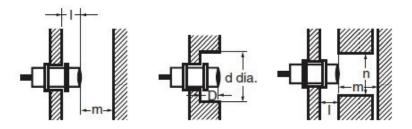
## **Different frequency**

A: 50 mm min., B: 35 mm min.

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Effects of surrounding metals

## Effects of surrounding metals



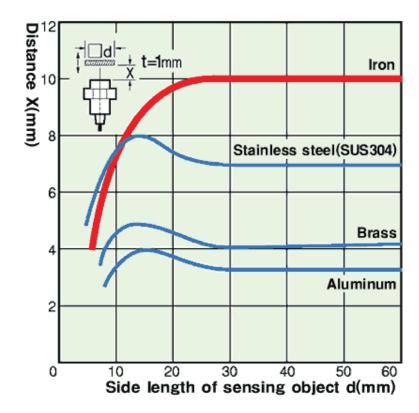
I: 0 mm min., dia. d: 30 mm min., D: 0 mm min., m: 40 mm min., n: 45 mm min.

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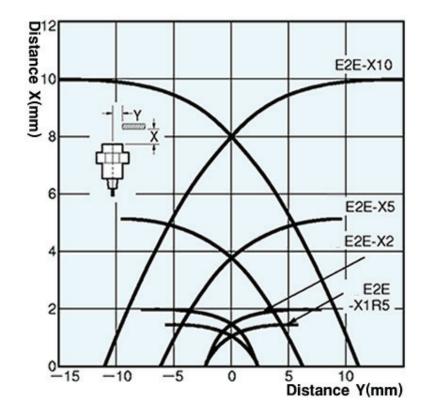
**Characteristic chart** 

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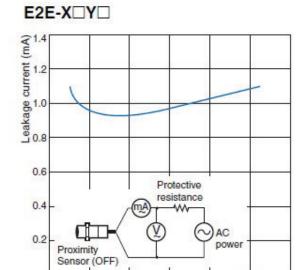
Sensing distance vs. size and material of sensing object



Sensing range

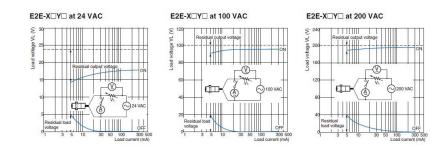


Leakage current



0 200 250 300 Power supply voltage (V)

Residual voltage



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