OMRON Industrial Automation | Global

Print

Long-barrel Inductive Proximity Sensor

E2E2-X5Y2 2M

Image

Shielded, Cylinder type (with screw) M18, AC 2-wire models, Sensing distance 5 mm ±10%, NC, Pre-wired models

Sensing head size	M18
Type	Cylinder type (with screw), Shielded
Power source	AC 2-wire models
Sensing distance	5 mm ±10%
Setting distance	0 to 4 mm
Operation mode	NC

Ratings/Performance

As of July 16, 2020

Sensing head size	M18
Type	Cylinder type (with screw), Shielded
Power source	AC 2-wire models
Sensing distance	5 mm ±10%
Setting distance	0 to 4 mm
Differential distance	10% max. of sensing distance
Sensing object	Ferrous metal (Sensitivity lowers with non-ferrous metals.)
Standard sensing object	Iron 18 x 18 x 1 mm
Response frequency	25 Hz (Average value)
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	NC
Ambient temperature (Operating)	-40 to 85 ℃
Ambient temperature (Storage)	-40 to 85 ℃
Ambient humidity (Operating)	35 to 95% RH
Ambient humidity (Storage)	35 to 95% RH
Temperature influence	±10% max. of sensing distance at 23 ℃ in the temperature range of -25 to 70 ℃ ±15% max. of sensing distance at 23 ℃ in the temperature range of -40 to 85 ℃
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 for 2 h
Shock resistance	Destruction: 1000 m/s^2 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. 150 g
Material	Case: Brass Sensing surface: Polybutylene terephthalate (PBT) Clamping nuts: Brass nickel plating Toothed washers: Iron zinc plating
Accessories	Instruction manual

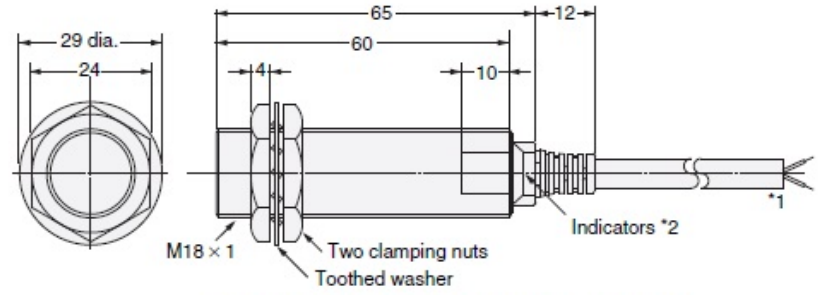
As of July 16, 2020

Dimensions

As of July 16, 2020

Dimensions

E2E2-X7D□/E2E2-X5C□/E2E2-X5Y□



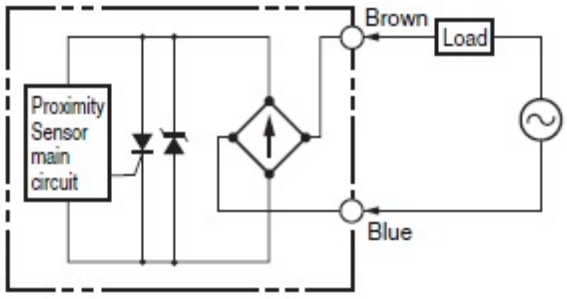
*1. 6-dia. vinyl-insulated round cable with 2 conductors
(Conductor cross section: 0.5 mm^2, Insulator diameter: 1.9 mm),
Standard length: 2 m
6-dia. vinyl-insulated round cable with 3 conductors
(Conductor cross section: 0.5 mm^2, Insulator diameter: 1.9 mm),
Standard length: 2 m
The cable can be extended to up to 200 m (Separate metal conduit.)
*2. D Models: Operation indicator (red) and setting indicator (green),
C/Y Models: Operation indicator (red)

As of July 16, 2020

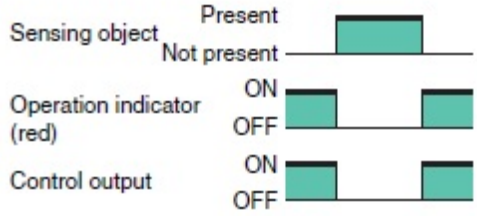
Output circuit

As of July 16, 2020

Output circuit



Timing chart

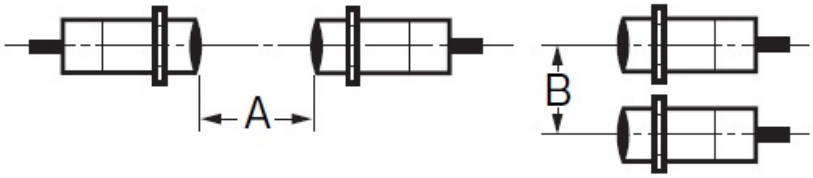


As of July 16, 2020

Mutual interference

As of July 16, 2020

Mutual interference



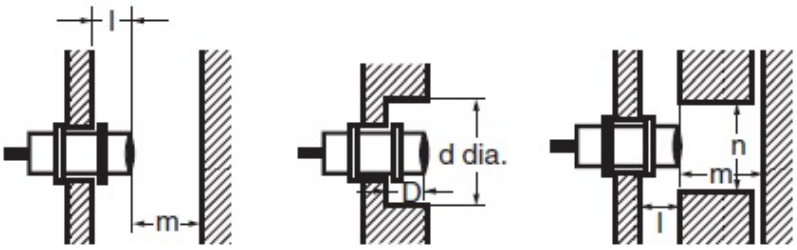
A: 50 mm min., B: 35 mm min.

As of July 16, 2020

Effects of surrounding metals

As of July 16, 2020

Effects of surrounding metals



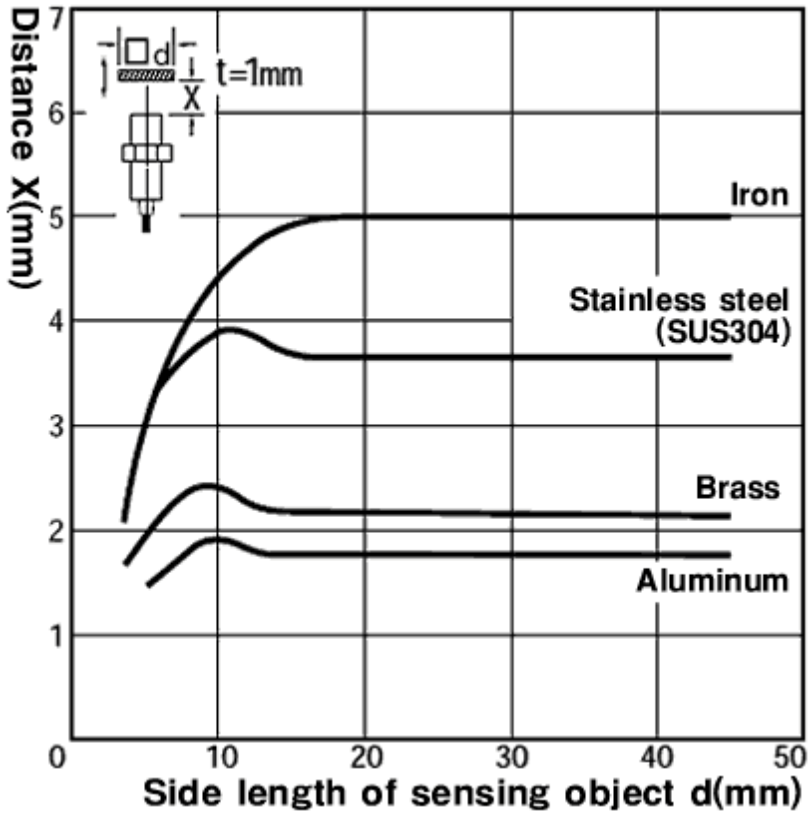
l: 0 mm min., dia. d: 18 mm min., D: 0 mm min., m: 20 mm min., n: 27 mm min.

As of July 16, 2020

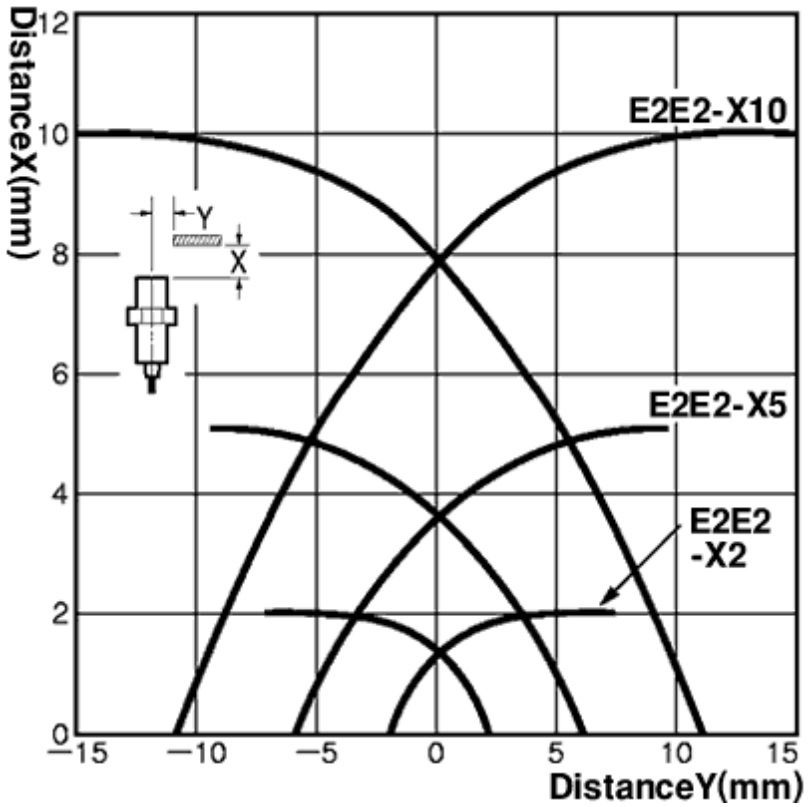
Characteristic chart

As of July 16, 2020

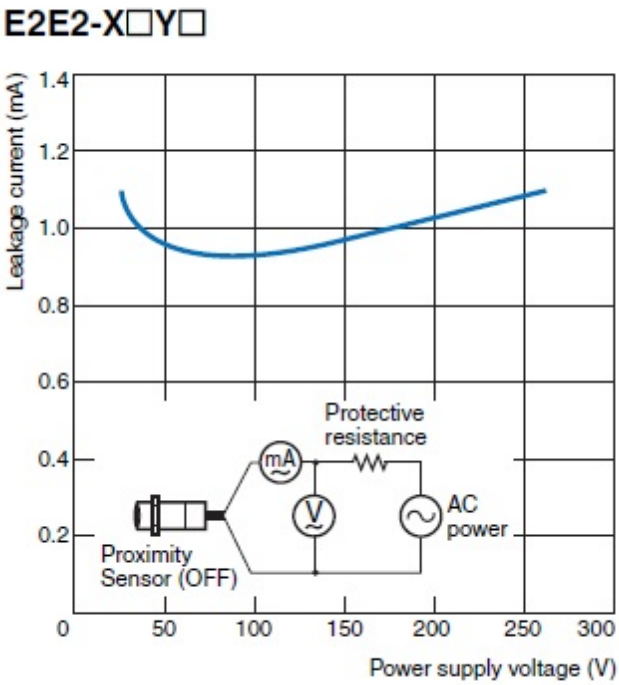
Sensing distance vs. size and material of sensing object



Sensing range

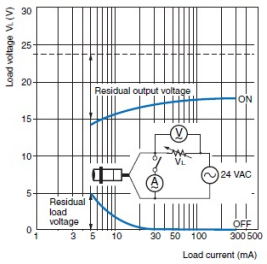


Leakage current

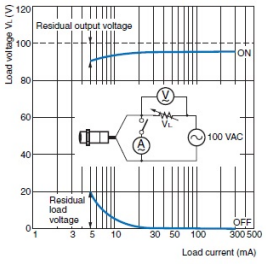


Residual voltage

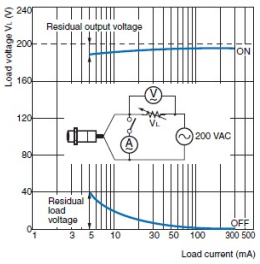
E2E2-X□Y□ at 24 VAC



E2E2-X□Y□ at 100 VAC



E2E2-X□Y□ at 200 VAC



As of July 16, 2020