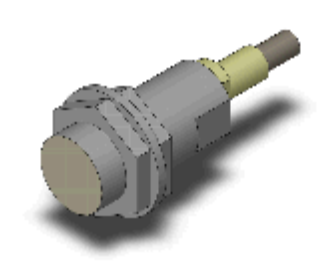


Chip-immune Inductive Proximity Sensor

E2EZ-X4D1-N 5M

Shielded, Cylinder type (with screw) M18, DC 2-wire models, Sensing distance 4 mm ±10%, NO, Pre-wired models



Image

Ratings/Performance

As of July 16, 2020

Sensing head size	M18
Type	Cylinder type (with screw), Shielded
Power source	DC 2-wire models
Sensing distance	4 mm ±10%
Setting distance	0 to 3.2 mm
Differential distance	20% 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	100 Hz (Average value)
Power supply voltage	12 to 24 VDC ripple (p-p) 10% max.
Operating voltage range	10 to 30 VDC
Leakage current	0.8 mA max.
Control output (Switching capacity)	3 to 100 mA
Indicator	Operation indicator (red), Operation setting indicator (green)
Operation mode	NO
Protective circuit	Output short-cut protection Surge suppressor
Ambient temperature (Operating)	0 to 50 °C
Ambient temperature (Storage)	0 to 50 °C
Ambient humidity (Operating)	35 to 95% RH
Ambient humidity (Storage)	35 to 95% RH
Temperature influence	±20% max. of sensing distance at 23 °C in the temperature range of 0 to 50 °C
Voltage influence	±2.5% max. of sensing distance at rated voltage in the rated voltage ±10% range
Insulation resistance	Between charged parts and the case: 5 MΩ min. at 500 VDC

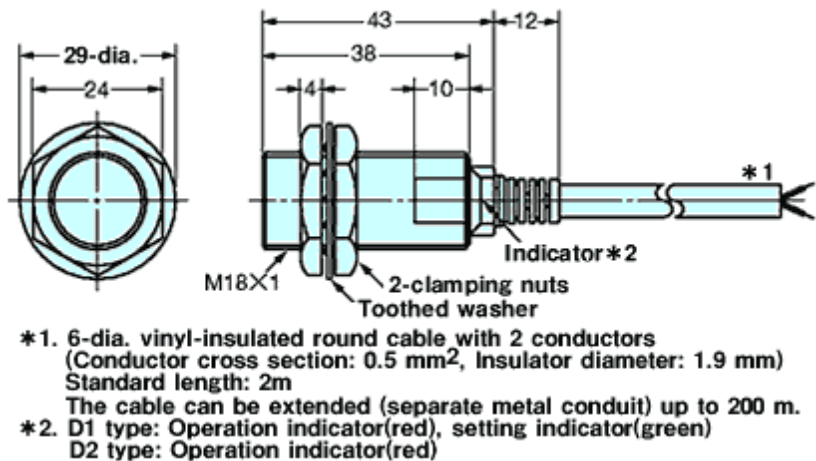
Dielectric strength	Between charged parts and the case: 1,000 VAC 50/60 Hz 1 min
Vibration resistance	Destruction: 10 to 55 Hz, 1.5 mm double amplitude each in X, Y, and Z directions for 2 h
Shock resistance	Destruction: 1000 m/s <sup>2</sup> 10 times each in X, Y, and Z directions
Degree of protection	IEC: IP67 Company standard: Oil-proof
Connection method	Pre-wired models (5 m)
Material	Case: Brass nickel plating Sensing surface: Polybutylene terephthalate (PBT) Clamping nuts: Iron zinc plating Toothed washers: Iron zinc plating
Accessories	Instruction manual

As of July 16, 2020

Dimensions

As of July 16, 2020

Dimensions

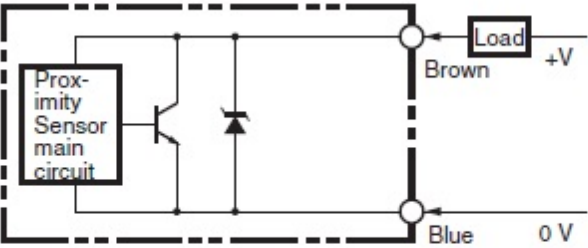


As of July 16, 2020

Output circuit

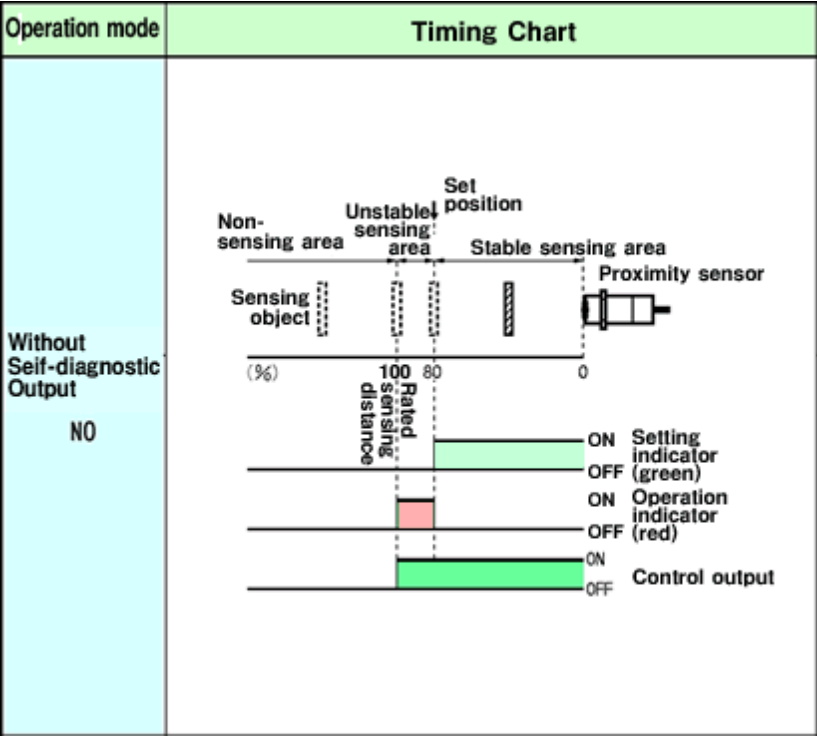
As of July 16, 2020

Output circuit



Note: The load can be connected to either the +V or 0 V side.

Timing chart

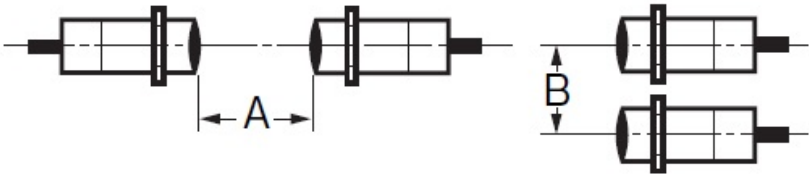


As of July 16, 2020

Mutual interference

As of July 16, 2020

Mutual interference

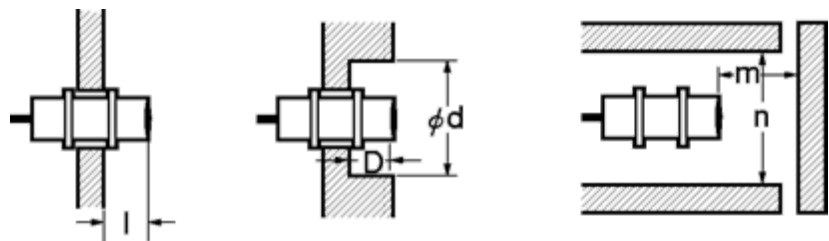


A: 40 mm min., B: 50 mm min.

Effects of surrounding metals

As of July 16, 2020

Effects of surrounding metals



Iron

L: 0 mm min., dia. d: 18 mm min., D: 0 mm min., m: 16 mm min., n: 27 mm min.

Aluminum

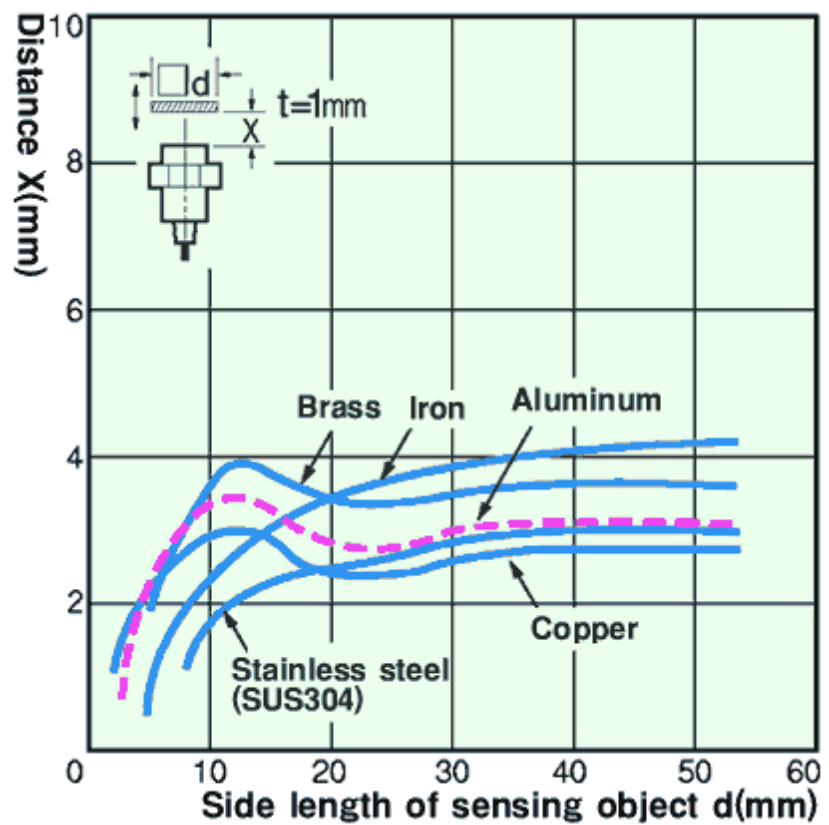
L: 5 mm min., dia. d: 40 mm min., D: 5 mm min., m: 16 mm min., n: 54 mm min.

As of July 16, 2020

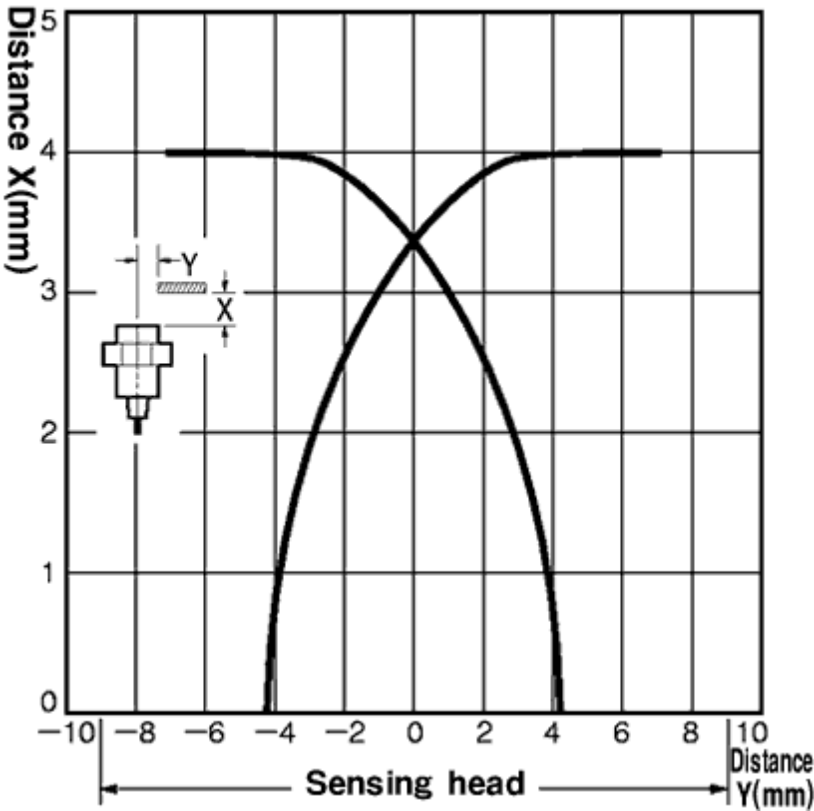
Characteristic chart

As of July 16, 2020

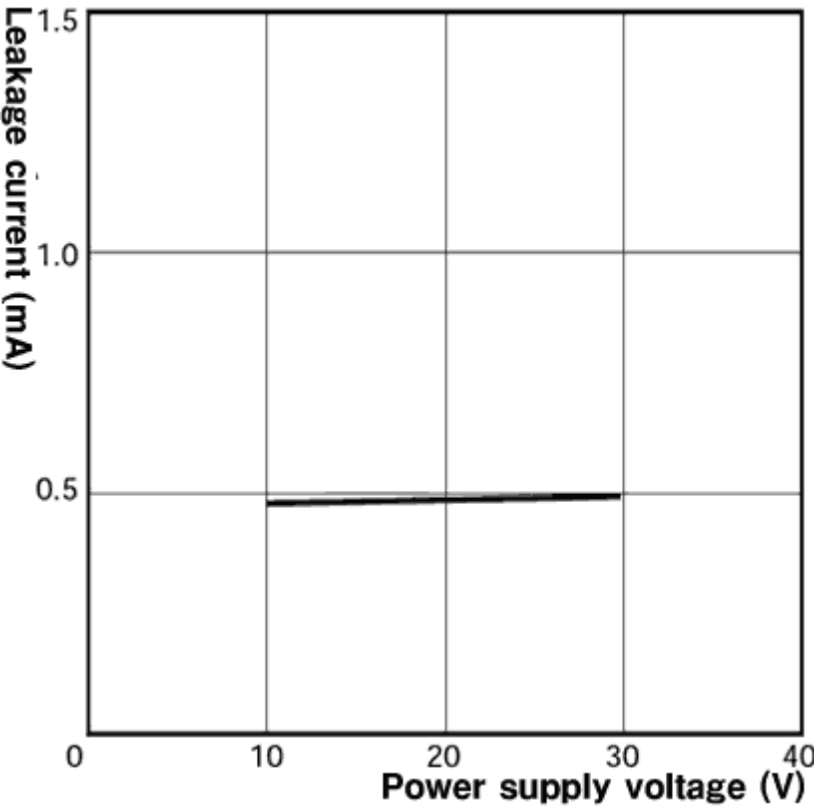
Sensing distance vs. size and material of sensing object



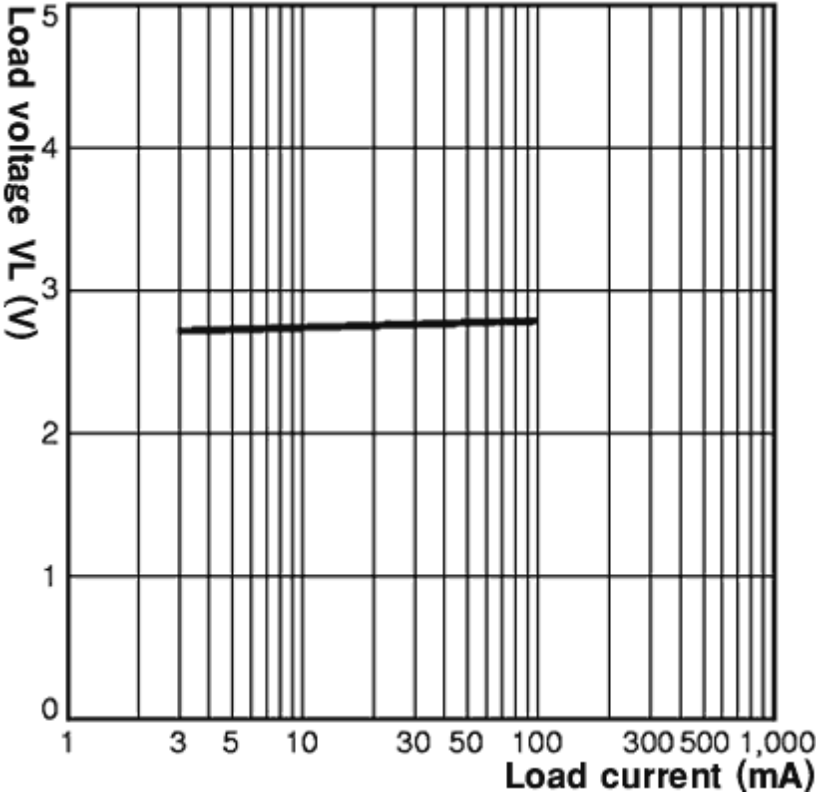
Sensing range



Leakage current



Residual voltage



As of July 16, 2020