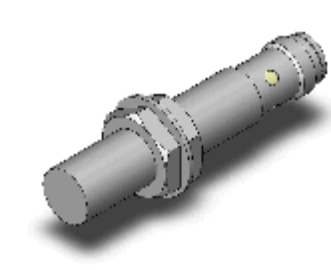


All Metals and Long-distance Types

E2V-X4B1-M1

Shielded, Cylinder type (with screw) M12, DC Three-wires models, Sensing distance 4 mm, NO, PNP open collector, M12 connector models



Image

Sensing head size	M12
Type	Cylinder type (with screw), Shielded
Power source	DC Three-wires models
Sensing distance	4 mm ±10%
Setting distance	0 to 3.2 mm
Operation mode	NO

Ratings/Performance

As of October 21, 2022

Sensing head size	M12
Type	Cylinder type (with screw), Shielded
Power source	DC Three-wires models
Sensing distance	4 mm ±10%
Setting distance	0 to 3.2 mm
Differential distance	10% max. of sensing distance
Sensing object	Ferrous metal, Non-ferrous metal (Sensing distance is different according to the material.)
Standard sensing object	Aluminum 12 x 12 x 3 mm
Response frequency	40 Hz (Average value)
Power supply voltage	12 to 24 VDC ripple (p-p) 10% max.
Operating voltage range	10 to 30 VDC
Power consumption	at 30 VDC, current consumption: 15 mA max.: 450 mW
Control output (Output type)	PNP open collector
Control output (Switching capacity)	100 mA max.
Indicator	Operation indicator (yellow/blink), Operation setting indicator (yellow/light)
Operation mode	NO
Protective circuit	Output short-cut protection Output reverse polarity protection Power supply reverse polarity protection Surge suppressor
Ambient temperature (Operating)	-25 to 70 °C
Ambient temperature (Storage)	-25 to 70 °C
Ambient humidity (Operating)	35 to 95%
Ambient humidity (Storage)	35 to 95%

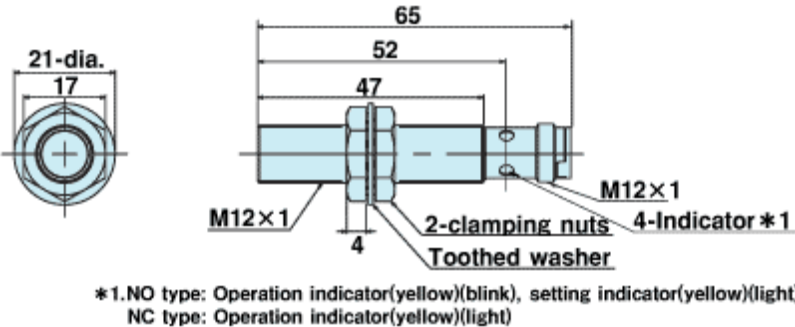
Temperature influence	±15% max. of sensing distance at 23 °C in the temperature range of -25 to 70 °C
Voltage influence	±1.5% max. of sensing distance at rated voltage in the rated voltage ±15% range
Insulation resistance	Between charged parts and the case: 50 MΩ min. at 500 VDC
Dielectric strength	Between 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
Connection method	M12 connector models
Weight	Package: Approx. 30 g
Material	Case: Brass nickel plating Sensing surface: Heat-resistant ABS resin Mounting nut: Brass nickel plating Toothed washers: Iron zinc plating
Accessories	Instruction manual

As of October 21, 2022

Dimensions

As of October 21, 2022

Dimensions

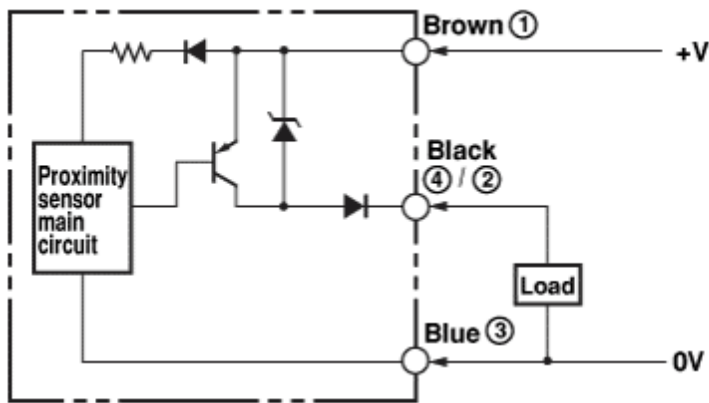


As of October 21, 2022

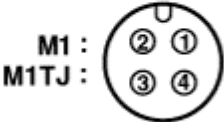
Output circuit

As of October 21, 2022

Output circuit

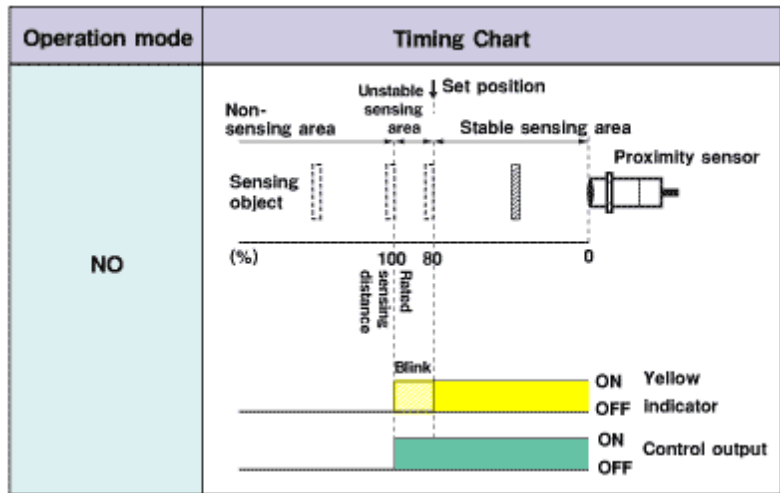


Note. For Connector Models,  
The connection between pins ①, ④ and ③ uses an NO contact.  
The connection between pins ①, ② and ③ uses an NC contact.



The applicable connector cable of our company : XS5F series  
XS2F series

Timing chart

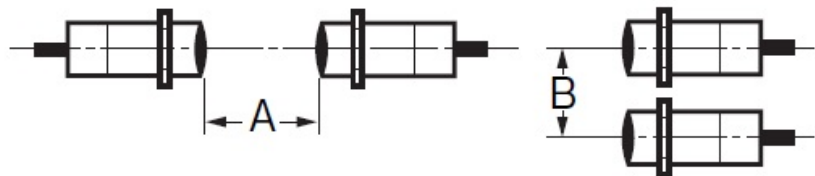


As of October 21, 2022

Mutual interference

As of October 21, 2022

Mutual interference

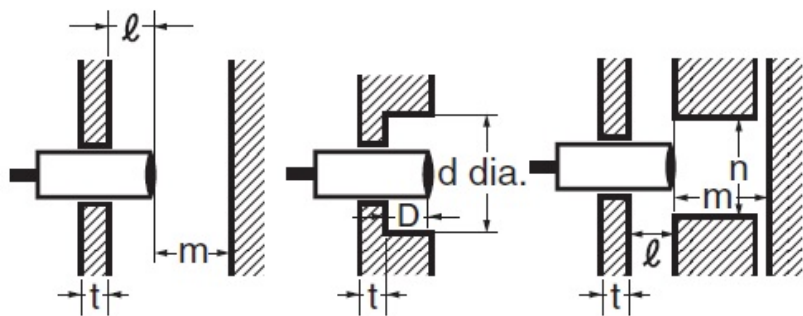


A: 35 mm min., B: 25 mm min.

Effects of surrounding metals

As of October 21, 2022

Effects of surrounding metals



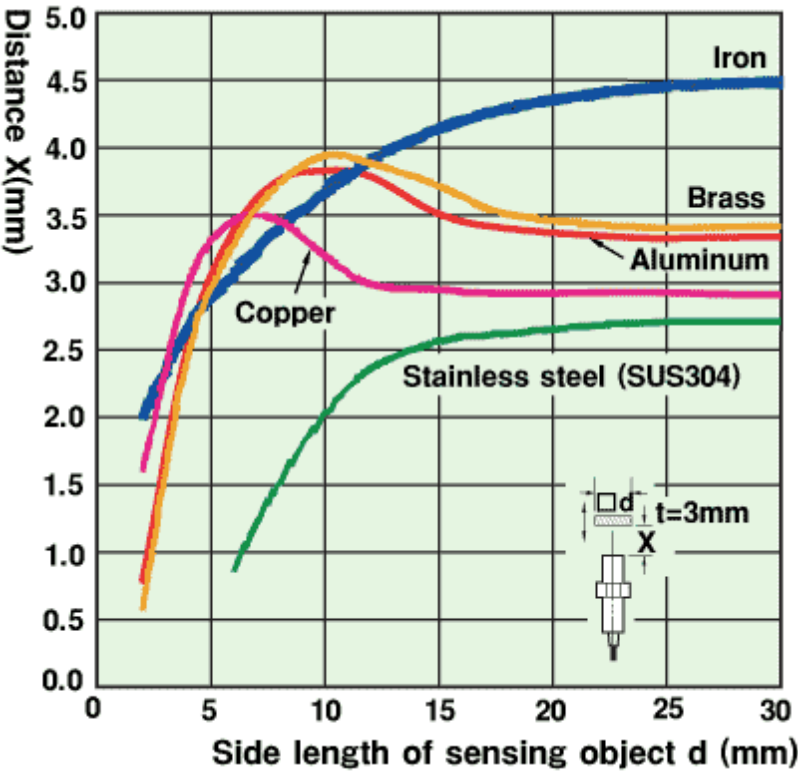
l: 0 mm min., dia. d: 12 mm min., D: 0 mm min., m: 12 mm min., n: 18 mm min.

As of October 21, 2022

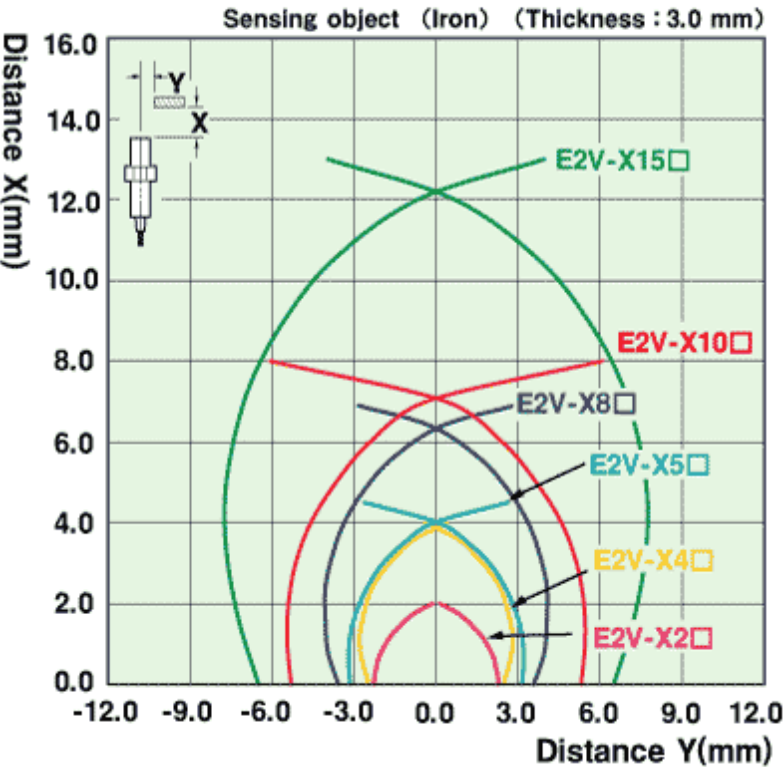
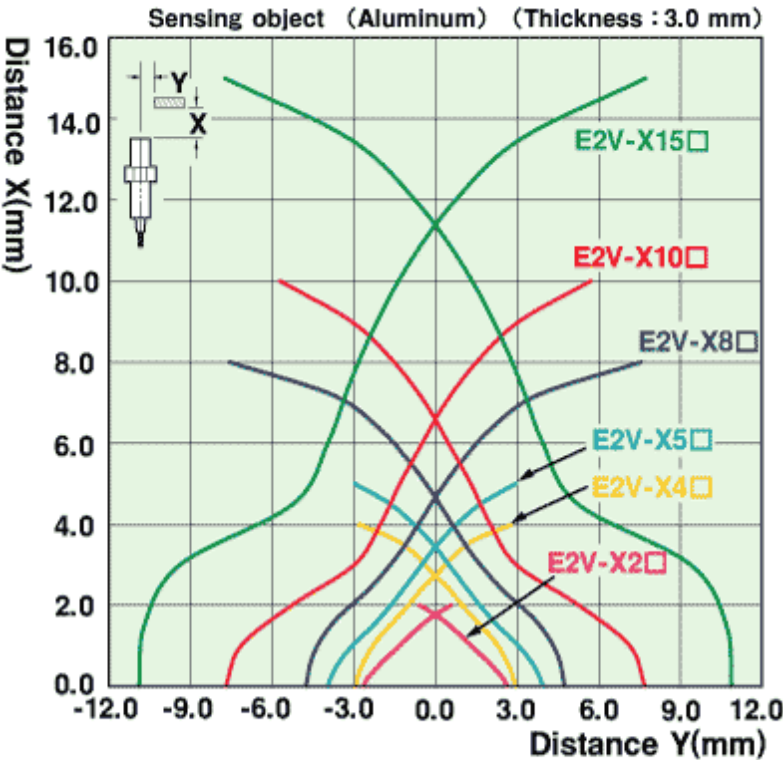
Characteristic chart

As of October 21, 2022

Sensing distance vs. size and material of sensing object



Sensing range



As of October 21, 2022