

**NEW**

**OMRON**

# Proximity Sensor Ideal for High Temperatures and Cleaning Processes

E2EH-X□□□

## E2E Quality Proximity Sensor Ideal for the Food and Beverage Industry

-- SUS316L Body, IP69K Protection, Resistant to High Temperatures and Detergents --



Improved resistance to detergents and rusting



Applicable to 120°C (with DC 3-wire connection) (Heat resistance verified to 1,000 hours.)

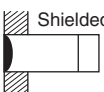


Water resistant under high-temperature, high-pressure cleaning based on DIN 40050-9. (Pressure: 8,000 to 10,000 kPa, Water temperature: 80°C, For 30 s at all angles)



Resists typical detergents and disinfectants used in the food industry.

### Ordering Information

Size	Sensing distance	Output configuration	Pre-wired models	M12 Connector models
 Shielded	M12 3 mm	DC 2-wire, polarity	E2EH-X3D1	E2EH-X3D1-M1G
		DC 2-wire, no polarity	E2EH-X3D1-T	---
		DC 3-wire, PNP	E2EH-X3B1	E2EH-X3B1-M1
	M18 7 mm	DC 2-wire, polarity	E2EH-X7D1	E2EH-X7D1-M1G
		DC 2-wire, no polarity	E2EH-X7D1-T	---
		DC 3-wire, PNP	E2EH-X7B1	E2EH-X7B1-M1
	M30 12 mm	DC 2-wire, polarity	E2EH-X12D1	E2EH-X12D1-M1G
		DC 2-wire, no polarity	E2EH-X12D1-T	---
		DC 3-wire, PNP	E2EH-X12B1	E2EH-X12B1-M1

Models with DC 3-wire, NPN outputs are also available. Use the following model number: E2EH-X□□□.

Models with normally closed outputs are also available. Use the following model number: E2EH-X□□□2.

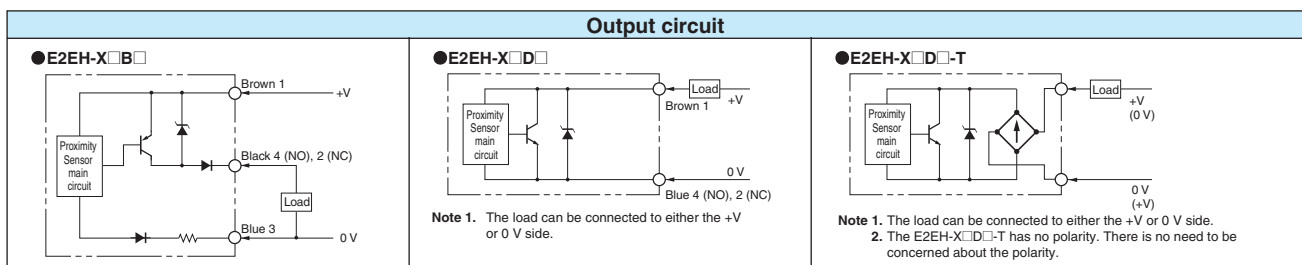
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# Ratings and Specifications

Item	M12 shielded	M18 shielded	M30 shielded
Size	M12 shielded	M18 shielded	M30 shielded
Model	E2EH-X3□□	E2EH-X7□□	E2EH-X12□□
Sensing distance	3 mm±10%	7mm±10%	12mm±10%
Set distance	0 to 2.4 mm	0 to 5.6 mm	0 to 9.6 mm
Differential travel	15% max. of sensing distance		
Power supply voltage (operating voltage range)	12 to 24 VDC, ripple (p-p): 10% max. (10 to 32 VDC) (24 VDC max. at 100°C or higher)		
Current consumption	10 mA max. (DC 3-wire)		
Leakage current	0.8 mA max. (DC 2-wire)		
Control output	DC 2-wire models: 3 to 100 mA (3 to 50 mA at 100 to 110°C), DC 3-wire models: 100 mA max. (50 mA max. at 100°C or higher)		
Residual voltage	DC 2-wire models: 3 V max. (Load current: 100 mA, with 2-m cable; 5 V max. for models with model numbers ending in -T) DC 3-wire models: 2 V max. (Load current: 100 mA, with 2-m cable)		
Indicators	DC 2-wire models: D1 models: Operating indicator (red) and setting indicator (yellow), D2 models: Operating indicator (yellow); DC 3-wire models: Operating indicator (yellow)		
Ambient temperature *2	DC 3-wire models: 0 to 100°C (0 to 120°C for 1,000 hours), DC 2-wire models: 0 to 100°C (0 to 110°C for 1,000 hours)		
Temperature influence	±10% max. of sensing distance at 23°C in the temperature range of 0 to 70°C ±15% max. of sensing distance at 23°C in the temperature range of 70 to 100°C -15% to 20% of sensing distance at 23°C in the temperature range of 100 to 120°C		
Degree of protection	IEC IP67, DIN 40050-9 IP69K		
Materials	Case, clamping nuts: Stainless steel (SUL316L) Sensing surface: PBT Cable: Heat-resistant PVC		

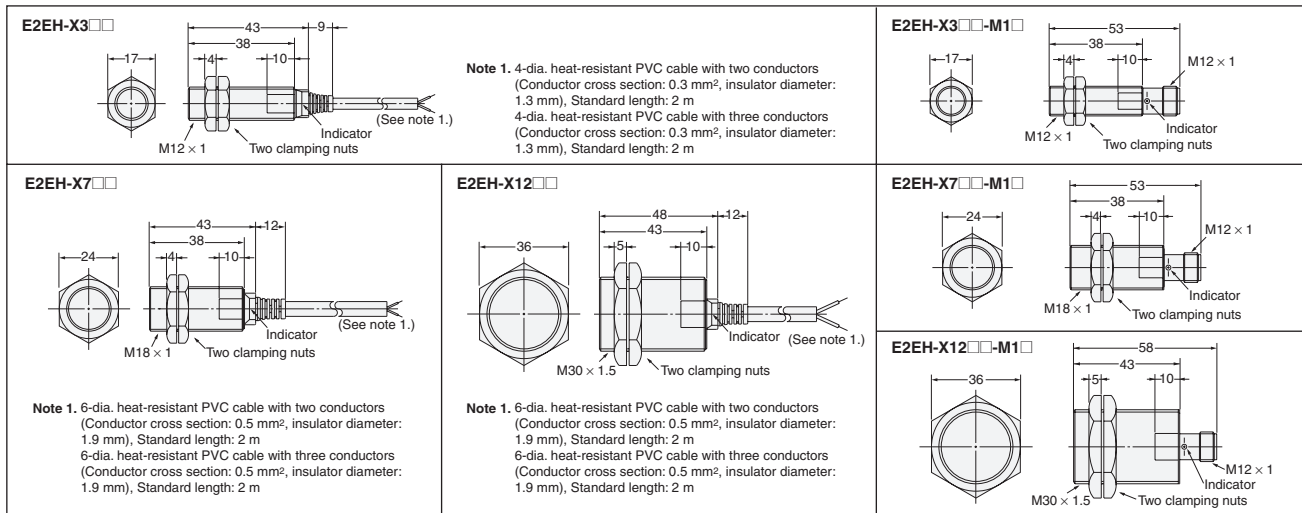
**Note 1.** Refer to the Sensor General Catalog for the influence of surrounding metal and mutual interference and use the Sensor in a suitable environment.  
**Note 2.** Operation with power supplied for 1,000 h has been verified at 120°C for DC, 3-wire models and at 110°C for DC 2-wire models. Do not bend the cable repeatedly at 100°C or higher.

# I/O Circuit Diagrams



# Dimensions

**Note:** All units are in millimeters unless otherwise indicated.



- Before ordering, read page F-2 in the Sensor General Catalog concerning warranty, limitations of liability, and other related information.
- This document provides information mainly for selecting suitable models and does not contain precautions for correct use and other precautionary information. Always read the Instruction Sheet included with the product before attempting to operate the product.

**Note: Do not use this document to operate the Unit.**

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Note: Specifications subject to change without notice.

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