

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)

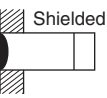


Water resistant under high-temperature, high-pressure cleaning based on DIN 40050-9. (Pressure: 8,000 to 10,000 kPa, Water temperature: 80°C, For 30 s at all angles)



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.

Sensor I/O Connectors suitable for high-temperature cleaning processes are available: XS2F-E42□-□□□-E Series (105°C, protection equivalent to IP67/IP69K).

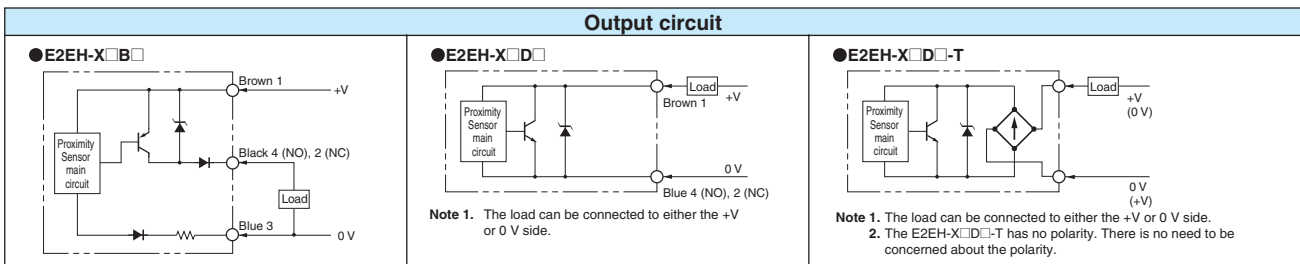
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Ratings and Specifications

| 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 | Load current | 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 | | |

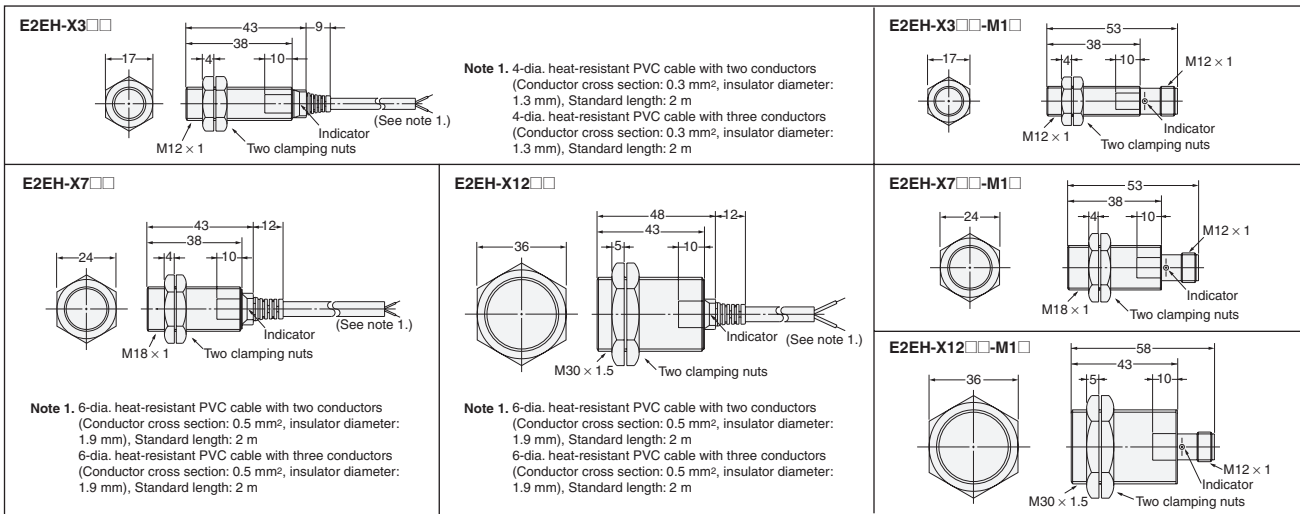
Note 1. Refer to the Sensor General Catalog for the influence of surrounding metal and mutual interference and use the Sensor in a suitable environment.
Note 2. Operation with power supplied for 1,000 h has been verified at 120°C for DC, 3-wire models and at 110°C for DC 2-wire models. Do not bend the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

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Note: Specifications subject to change without notice.

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