



Four times the range of a standard M12 sensor



Exceptional sensing range

Reduces sensor failures and increases productivity

NEW

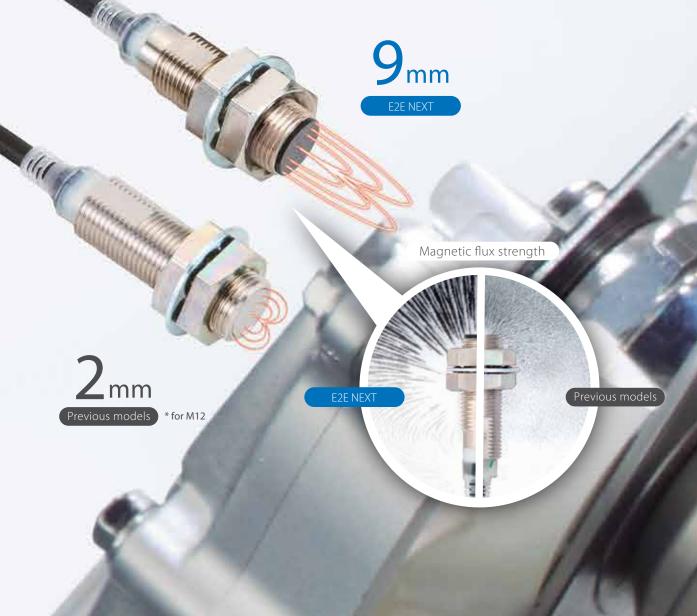
IO-Link is standard for NO/PNP 3-wire models



OMRON

OMRON

E2E NEXT Inductive Sensors Offer up to four times the range of standard sensors







The exceptional range offered by the E2E NEXT Sensors allows them to be mounted further away from the intended target. The increased sensing distance reduces the risk of the target impacting the face of the sensor, extending its useful life. Long range sensors:

- Reduce downtime associated with replacing a damaged sensor. The cost
 of the sensor is minimal compared to the cost of lost production.
- Increases flexibility in mounting design. Use smaller diameter sensors in place of larger diameter sensors.
- Solve difficult applications with additional sensing range. The increased range of the E2E NEXT offers a solution to applications that couldn't be solved before due to lack of sensing range.

E2E NEXT Sensors include a full range of 1x, 2x, 3x, and 4x sensors to meet the needs of any application.

Features

- Up to four times the sensing range of standard inductive sensors
- DC 2-wire and DC 3-wire versions
- Shielded and unshielded versions
- PNP or NPN units (3-wire versions)
- 360° visible output indicator
- -25°C to 70°C operating temperature
- Pre-wired & pre-wired connector models: IP67; IP67G; IP69K
- Connector models: IP67; IP69K
- Short and long body housing options
- Available with splatter resistant coating
- Connection options:
 - Pre-wire PVC
 - Pre-wire Robot PVC
 - PVC pigtail
 - Robot PVC Pigtail
 - M8 3 pin
 - M8 4 pin
 - M12 4pin
- UL, CSA, CE Certifications

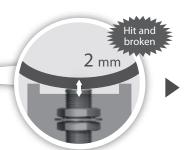


Reduce sensor damage



Previous models

Sliding targets collide with sensors causing failures and equipment downtime.



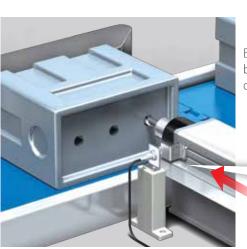
E2E NEXT

Long-distance detection maintains sufficient target distance from sensor, reducing the risk of impacting the sensor.



Metal plate position confirmation

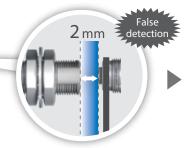
Accommodate changing conditions



Spindle presence detection

Previous models

Equipment vibration widens the distance between target and sensor causing false detection and equipment shutdown.



E2E NEXT

Long-distance detection enhances the degree of the detection margin resulting in consistent detection even when the target moves further away from the sensor.

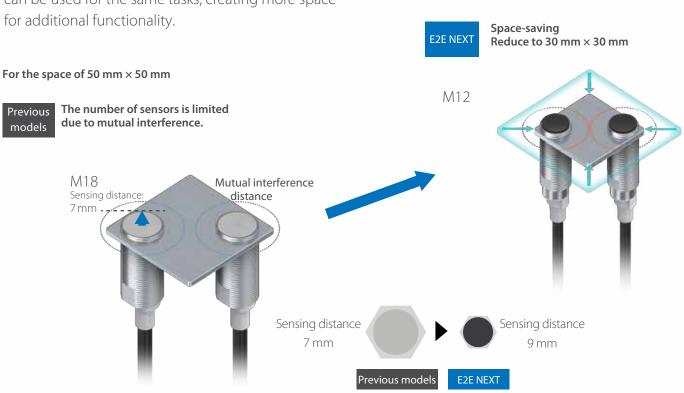


* M12



Increase flexibility in mounting design

The long sensing distance means that smaller sensors can be used for the same tasks, creating more space for additional functionality.

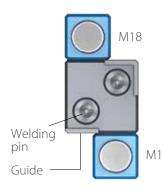


Facilitate installation in tight spaces





Due to the guide surrounding the welding pin, it is difficult to install a sensor near the pin to check the sitting position.



E2E NEXT

Reduced mutual interference allows compact installation in welding jigs.



Note: Make sure to factor the influence of surrounding metal into your designs. (Refer to • Influence of Surrounding Metal upon Design in the data sheets for details.)



2 year oil resistant*1 components reduce unexpected equipment shutdowns

Previous models

Cable deterioration due to cutting oil

E2E NEXT

Verification of 2-year oil resistance*1 based on IP67G and Omron's oil-resistant component evaluation standards



PUR cables get cracks in environments where water-soluble cutting oil is used.

Oil resistance: 2 years*1

IP67G

Oil type N3 (water-insoluble cutting oil)
Evaluation time 48 hours
Evaluation temperature Room temperature
Dilution concentration
Criteria Appearance and performance

Omron's E2E NEXT series
Proximity Sensor use PVC cables
with enhanced oil resistance.

| OV | /IRON's Oil-resistant C | omponent Evaluation Standard |
|----|-------------------------|---|
| | Oil type | A1 (water-soluble cutting oil) |
| | Evaluation time | 1,000 hours of machining |
| | Evaluation temperature | 55 ℃ |
| | Dilution concentration | Undiluted |
| | Criteria | Appearance, performance, and no label text loss |

^{*1.} Applicable oil types: specified in JIS K 2241:2000 "2-year oil resistance" refers to median values (=Typical values) of the product designs and the oil-resistance performance evaluation results. Products to be shipped will have around 2 years of oil resistance; actual oil resistance will vary depending on the product. The pre-wired connector model has a verified oil resistance of 2 years when mated with XS5 NEXT series round oil-resistant connectors. This value has not been verified for 3-wire connector models (M1/M3/M5).



Thermal Distance Control × IoT: technologies for stable long-distance detection

• E2E Next Series Proximity Sensors solve temperature effects on sensing distance with Thermal Distance control (TDC) technology for stable long-distance detection and analog digital hybrid ICs.

DC 2-wire triple distance models (TDC)

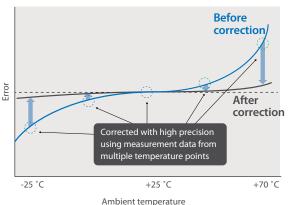
 Temperature correction values are written into the analog digital hybrid IC (PROX2) to minimize the influence of temperature changes on sensing distances.

NEW

Patent Pending

DC 3-wire quadruple models (**TDC** \times IoT)

 In-line measurements of each sensor's temperature characteristics are possible in IoT-enabled production processes. Optimal correction values then minimize differences the influence of temperature change on sensing distances. Sensing distance fluctuation due to ambient temperature



User friendly design reduces equipment downtime

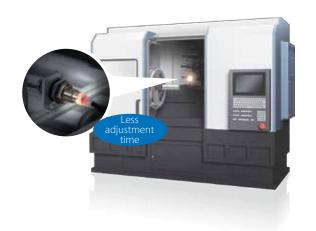
Indicator can be seen regardless of orientation



Detection validation during installation can be difficult based on the location of the detector on the equipment.



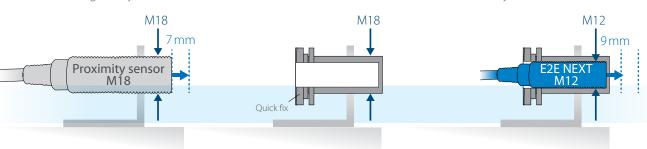
With high-brightness LED, the indicator is visible 360° around, making detection validation easy.



Easily upgrade existing equipment with 10-second proximity sensor replacements

The sensing distance of E2E-NEXT is approximately twice that of previous models. For example, the sensing distance of the M12 models is 7 mm, which is about the same as conventional M18 models. Using these sensors together with Quick fix allows easy upgrades to existing equipment in just 10 seconds.*

- 1. Dismount the M18 proximity sensor from the existing facility.
- 2. Mount an M18-sized Quick fix.
- 3. Insert an E2E NEXT Series M12
 Proximity Sensor into the Quick fix.



Note: All sensing distances are for 2-wire models.

^{*} Time required to adjust the distance when installing a sensor. Based on OMRON investigation.

IO-Link 3-wire models

allow early identification of sensor failures

Using the IO-Link Master to connect IO-Link sensors to controllers enables replacement time reduction by detecting the location and cause of failures in real time.





Monitors real-time sensor failure from a single location.

By using the IO-Link Master to connect proximity sensors and controllers, HMI's can be used for early detection of location and nature of sensor failures.

Predictive maintenance through condition monitoring.

- Send info from sensor to controller using IO-Link Master for stable connections with host equipment
- Facilitate real time condition monitoring and predictive maintenance with IO-Link
- Increase productivity through data collection and analysis







Ordering information

| E2E | (1) - | Χ | (2) (3) (4) (5) (6) (7) | - (8) - | (9) - (10) | (11) |
|-----|-------|---|-------------------------|---------|------------|------|
|-----|-------|---|-------------------------|---------|------------|------|

| | No. | Type | Code | Meaning |
|---------------|---------|------------------------|----------|--|
| | (1) | Case | Blank | Without splatter-resistant coating |
| | | | Q | With splatter resistant coating |
| | (2) | Sensing distance | Number | Sensing distance (Unit: mm) (R: Indication of decimal point) |
| | (3) | Shielding | Blank | Shielded |
| | | | М | Unshielded |
| | (4) | Output configuration | В | PNP open collector |
| | | | С | NPN open collector |
| | (5) | Operation mode | 1 | Normally open (NO) |
| | | | 2 | Normally closed (NC) |
| | | | 3 | Normally open, Normally closed (NO+NC) |
| E2E/E2EQ NEXT | (6) | IO-Link baud rate | Blank | IO-Link baud rate |
| Series model | | | D | COM2 (38.4 kbps) |
| number legend | | | Т | COM3 (230.4 kbps) |
| 3 | (7) | Body Size | Blank | Standard |
| | | | L | Long Body |
| DC 3-wire | (8) | Size | 8 | M8 |
| | | | 12 | M12 |
| | | | 18 | M18 |
| | | | 30 | M30 |
| | (9) | Connection method | Blank | Pre-wired Models |
| | | | M1 | M12 Connector Models |
| | | | МЗ | M8 (4-pin) Connector Models |
| | | | M5 | M8 (3-pin) Connector Models |
| | | | M1TJ | M12 Pre-wired Smartclick Connector Models (pigtail) |
| | | | M1TJR | M12 Pre-wired Smartclick Connector Models Robot (bending-resistant) cable (robot pigtail) |
| | (10) | Cable specifications * | Blank | Standard PVC cable |
| | | | R | Robot (bending-resistant) cable |
| | (11) | Cable length | Number M | Cable length |
| | W / 4 m | | | |

^{* (10)} is only shown in the model number of Pre-wired Models.

Note: The purpose of this model number legend is to provide understanding of the meaning of specifications from the model number. Models are not available for all combinations of code numbers.

E2E NEXT Series (Quadruple distance model part number example)

| Size (Sensing Distance) | Connection Method | Body Size | Operation Mode | Model | | |
|----------------------------|----------------------|-----------|----------------|----------------|---------------|--|
| (Sensing Distance) | | | | PNP | NPN | |
| | Pre-wired (2M) | 38 mm *2 | NO | E2E-X4B1D8 2M | E2E-X4C18 2M | |
| | | | NC | E2E-X4B28 2M | E2E-X4C28 2M | |
| | | 48 mm | NO | E2E-X4B1DL8 2M | E2E-X4C1L8 2M | |
| MQ (4mama) | | | NC | E2E-X4B2L8 2M | E2E-X4C2L8 2M | |
| M8 (4mm) | M12 Connector | 43 mm *3 | NO | E2E-X4B1D8-M1 | E2E-X4C18-M1 | |
| | | | NC | E2E-X4B28-M1 | E2E-X4C28-M1 | |
| | | 53 mm | NO | E2E-X4B1DL8-M1 | E2E-X4C1L8-M1 | |
| | | | NC | E2E-X4B2L8-M1 | E2E-X4C2L8-M1 | |

 $[\]hbox{*1. Models with 5-m cable length are also available with "5M" suffix. (Example: E2E-X9B1D12 5M)}\\$

^{*2.} Models with 2-m and 5-m robot (bending-resistant) cables are also available with "-R" in the model number.

⁽Example: E2E-X9B1D12-R 2M/E2E-X9B1D12-R 5M)

^{*3.} Models with M12 Smartclick connector model robot (bending-resistant) cables are also available with "R" in the model number. (Example: E2EX9B1D12-M1TJR 0.3M)



OMRON AUTOMATION AMERICAS HEADQUARTERS • Chicago, IL USA • 847.843.7900 • 800.556.6766 • automation.omron.com

OMRON CANADA, INC. • HEAD OFFICE

Toronto, ON, Canada • 416.286.6465 • 866.986.6766 • automation.omron.com

OMRON ELECTRONICS DE MEXICO • HEAD OFFICE

Ciudad de México • 52.55.5901.4300 • 01.800.386.6766 • mela@omron.com

OMRON ELECTRONICS DE MEXICO • SALES OFFICE

San Pedro Garza García, N.L. • 81.12.53.7392 • 01.800.386.6766 • mela@omron.com

OMRON ELECTRONICS DE MEXICO • SALES OFFICE

Eugenio Garza Sada, León, Gto • 01.800.386.6766 • mela@omron.com

OMRON ELETRÔNICA DO BRASIL LTDA • HEAD OFFICE

São Paulo, SP, Brasil • 55.11.2101.6300 • www.omron.com.br

OMRON ARGENTINA • SALES OFFICE

Buenos Aires, Argentina • +54.11.4521.8630 • +54.11.4523.8483 mela@omron.com

OTHER OMRON LATIN AMERICA SALES

+54.11.4521.8630 • +54.11.4523.8483 • mela@omron.com

Authorized Distributor:

Controllers & I/O

- Machine Automation Controllers (MAC) Motion Controllers
- Programmable Logic Controllers (PLC) Temperature Controllers Remote I/O

Robotics

• Industrial Robots • Mobile Robots

Operator Interfaces

• Human Machine Interface (HMI)

Motion & Drives

- Machine Automation Controllers (MAC) Motion Controllers Servo Systems
- Frequency Inverters

Vision, Measurement & Identification

• Vision Sensors & Systems • Measurement Sensors • Auto Identification Systems

Sensing

- Photoelectric Sensors Fiber-Optic Sensors Proximity Sensors
- Rotary Encoders Ultrasonic Sensors

Safety

- $\bullet \, \mathsf{Safety} \, \mathsf{Light} \, \mathsf{Curtains} \, \bullet \, \mathsf{Safety} \, \mathsf{Laser} \, \mathsf{Scanners} \, \bullet \, \mathsf{Programmable} \, \mathsf{Safety} \, \mathsf{Systems}$
- Safety Mats and Edges Safety Door Switches Emergency Stop Devices
- $\bullet \, \mathsf{Safety} \, \mathsf{Switches} \, \& \, \mathsf{Operator} \, \mathsf{Controls} \, \bullet \, \mathsf{Safety} \, \mathsf{Monitoring/Force-guided} \, \mathsf{Relays}$

Control Components

- Power Supplies Timers Counters Programmable Relays
- Digital Panel Meters Monitoring Products

Switches & Relays

- Limit Switches Pushbutton Switches Electromechanical Relays
- Solid State Relays

Software

 $\bullet \ \mathsf{Programming} \ \& \ \mathsf{Configuration} \ \bullet \ \mathsf{Runtime}$

D120I-E3-05

Note: Specifications are subject to change.

© 2019 Omron. All Rights Reserved.

Printed in U.S.A.

X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for Switching Power Supplies category:

Click to view products by Mean Well manufacturer:

Other Similar products are found below:

70841011 73-551-0005 AAD600S-4-OP R22095 HWS50A-5/RA KD0204 9021 S-15F-12 LDIN100150 LPM000-BBAR-01 LPX17S-C EVS57-10R6/R FDC40-24S12 FRV7000G 22929 CQM1IA121 40370121900 VI-PU22-EXX 40370121910 LDIN5075 432703037161 WRB01X-U LPX140-C 08-30466-1040G 09-160CFG 70841004 70841025 VPX3000-CBL-DC LPM000-BBAR-05 LPM000-BBAR-08 LPM124-OUTA1-48 LPM000-BBAR-07 LPM109-OUTA1-10 LPM616-CHAS 08-30466-1055G 08-30466-2175G DMB-EWG TVQF-1219-18S 6504-226-2101 CQM1IPS01 XPFM201A+ MAP80-4000G LFP300F-24-TY SMP21-L20-DC24V-5A VI-MUL-ES 08-30466-0065G CME240P-24 VI-RU031-EWWX 08-30466-0028G S82Y-TS01