

Standard Proximity Sensor

E2E

(DC 2/3-Wire)

Your Search for Proximity Sensors Starts with the World-leading Performance and Quality of the E2E

- Standard Sensors for detecting ferrous metals.
- Wide array of variations. Ideal for a variety of applications.
- Models with different frequencies are also available to prevent mutual interference.
- Superior environment resistance with standard cable made of oil-resistant PVC and sensing surface made of material that resists cutting oil.
- Useful to help prevent disconnection. Cable protector provided as a standard feature.



(Standards do not apply to all models.)



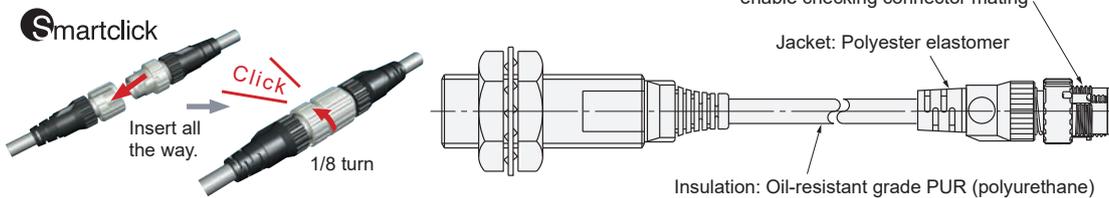
For the most recent information on models that have been certified for safety standards, refer to your OMRON website.

 Be sure to read *Safety Precautions* on page 18.

Note: DC 2-Wire Models have been integrated into the E2E NEXT Series at the end of October 2022.
DC 3-Wire Models have been discontinued at the end of March 2022. Refer to the catalog (Cat. No. D120) for details.

Features

Lineup includes models with Smartclick pre-wired connectors for fast connection.



UL-recognized Models Available



E2E

E2E Model Number Legend

E2E- (1) (2) (3) (4) (5) (6) (7) - (8) (9) - (10) - (11) - (12) (13)

No.	Classification	Code	Meaning	Remarks
(1)	Appearance	X	Cylindrical (threaded)	
(2)	Sensing distance	Number	Sensing distance (Unit: mm)	Example: 1R5: 1.5 mm
		R	Indication of decimal point	
(3)	Shielding	Blank	Shielded Model	
		M	Unshielded Model	
(4)	Power supply and output specifications	B	DC 3-wire PNP open-collector output	Whether D models have polarity is defined by number 10.
		C	DC 3-wire NPN open-collector output	
		D	DC 2-wire polarity/no polarity	
		E	DC 3-wire NPN collector load built-in output	
		F	DC 3-wire PNP collector load built-in output	
		T	AC/DC 2-wire	
		Y	AC 2-wire	
(5)	Form of output switching element	1	Normally open (NO)	
		2	Normally closed (NC)	
(6)	Oscillation frequency type	Blank	Standard frequency	Used to prevent mutual interference.
		5	Different frequency	
(7)	Self-diagnosis	Blank	No	
		5	Yes	
(8)	Connection method	Blank	Pre-wired	
		M1	M12-size metal connector	
		M3	M8-size metal connector	
(9)	Connector specifications	Blank	Connector Model DC 3-wire and AC 2-wire, DC 2-wire with self-diagnosis output, DC 2-wire with old pin arrangement	
		G	Connector Model DC 2-wire with IEC pin arrangement	
		J	Pre-wired Connector Model DC 3-wire and AC 2-wire, DC 2-wire with old pin arrangement	
		GJ	Pre-wired Connector Model DC 2-wire with IEC pin arrangement	
		TJ	Pre-wired Smartclick Connector Model DC 2-wire	
		TGJ	Pre-wired Smartclick Connector Model DC 2-wire with IEC pin arrangement	
(10)	DC 2-wire polarity	Blank	Polarity	
		T	No polarity	
(11)	Cable specifications	Blank	Standard PVC cable (oil resistant)	
		R	Flexible PVC cable (oil resistant)	
		U	Polyurethane cable (oil resistant and reinforced)	
(12)	New model	N	New model (Applies only to DC 2-wire pre-wired and shielded models.)	This is blank if the cable specification in number 11 is R or U.
	Standard-certified model	US	UL-recognized model (Applies to DC 2-wire pre-wired models and pre-wired connector models.)	
(13)	Cable length	Letter M	Cable length (Unit: m) (Applicable to Pre-wired Models and Pre-wired Connector Models.)	Example: 2M 0.3M

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.

Ordering Information

Note: DC 2-Wire Models have been integrated into the E2E NEXT Series at the end of October 2022. Refer to the catalog (Cat. No. D120) for details.

2-Wire Models

Shielded DC 2-wire Models with No Self-diagnostic Output [Refer to Dimensions on page 20.]



Appearance	Sensing distance		Connection method	Cable specifications	Polarity	Operation mode	Pin arrangement	Applicable connector code *2	Model
M8	2 mm		M12 Pre-wired Smart-click Connector Models (0.3m)	PVC (oil-resistant)	Yes	NO	1: +V, 4: 0 V	E	E2E-X2D1-M1TGJ 0.3M
			Pre-wired Models (2 m)	PVC (oil-resistant)		NO	---	---	E2E-X2D1-N 2M
						NC	---	---	E2E-X2D2-N 2M
			M12 Connector Models	---		NO	1: +V, 4: 0 V	A	E2E-X2D1-M1G
						NC	1: +V, 2: 0 V	D	E2E-X2D2-M1G
			M8 Connector Models	---		NO	1: +V, 4: 0 V	F	E2E-X2D1-M3G
NC	1: +V, 2: 0 V	E2E-X2D2-M3G							
M12	3 mm		M12 Pre-wired Smart-click Connector Models (0.3m)	PVC (oil-resistant)	Yes	NO	1: +V, 4: 0 V	E	E2E-X3D1-M1TGJ 0.3M
			Pre-wired Models (2 m)	PVC (oil-resistant)		NO	---	---	E2E-X3D1-N 2M *1
						NC	---	---	E2E-X3D2-N 2M
			M12 Connector Models	---		NO	1: +V, 4: 0 V	A	E2E-X3D1-M1G *1
					NC	1: +V, 2: 0 V	D	E2E-X3D2-M1G	
			M12 Standard Pre-wired Connector Models (0.3 m)	PVC (oil-resistant)	Yes	NO	1: +V, 4: 0 V	A	E2E-X3D1-M1GJ 0.3M
						NC	1: +V, 2: 0 V	D	E2E-X3D2-M1GJ 0.3M
					No *3	NO	(3, 4): (+V, 0 V)	C	E2E-X3D1-M1J-T 0.3M
NC	(1, 2): (+V, 0 V)	D				---			
M18	7 mm		M12 Pre-wired Smart-click Connector Models (0.3m)	PVC (oil-resistant)	Yes	NO	1: +V, 4: 0 V	E	E2E-X7D1-M1TGJ 0.3M
			Pre-wired Models (2 m)	PVC (oil-resistant)		NO	---	---	E2E-X7D1-N 2M *1
						NC	---	---	E2E-X7D2-N 2M
			M12 Connector Models	---		NO	1: +V, 4: 0 V	A	E2E-X7D1-M1G *1
					NC	1: +V, 2: 0 V	D	E2E-X7D2-M1G	
			M12 Standard Pre-wired Connector Models (0.3 m)	PVC (oil-resistant)	Yes	NO	1: +V, 4: 0 V	A	E2E-X7D1-M1GJ 0.3M
						NC	1: +V, 2: 0 V	D	E2E-X7D2-M1GJ 0.3M
					No *3	NO	(3, 4): (+V, 0 V)	C	E2E-X7D1-M1J-T 0.3M
NC	(1, 2): (+V, 0 V)	D				E2E-X7D2-M1J-T 0.3M			
M30	10 mm		M12 Pre-wired Smart-click Connector Models (0.3m)	PVC (oil-resistant)	Yes	NO	1: +V, 4: 0 V	E	E2E-X10D1-M1TGJ 0.3M
			Pre-wired Models (2 m)	PVC (oil-resistant)		NO	---	---	E2E-X10D1-N 2M *1
						NC	---	---	E2E-X10D2-N 2M
			M12 Connector Models	---		NO	1: +V, 4: 0 V	A	E2E-X10D1-M1G *1
					NC	1: +V, 2: 0 V	D	E2E-X10D2-M1G	
			M12 Standard Pre-wired Connector Models (0.3 m)	PVC (oil-resistant)	Yes	NO	1: +V, 4: 0 V	A	E2E-X10D1-M1GJ 0.3M
						NC	1: +V, 2: 0 V	D	E2E-X10D2-M1GJ 0.3M
					No *3	NO	(3, 4): (+V, 0 V)	C	E2E-X10D1-M1J-T 0.3M
NC	(1, 2): (+V, 0 V)	D				E2E-X10D2-M1J-T 0.3M			

*1. Models with different frequencies are also available. The model number is E2E-X □D15 (example: E2E-X3D15-N 2M).

*2. Refer to page 15 for details.

*3. The residual voltage for models without polarity is 5 V, so use caution concerning the connection load interface conditions (e.g., PLC ON voltage). Refer to page 19