\blacksquare (E2E-X \square D \square -U/E2E-X \square D \square S/E2E-X \square Y \square /E2E-X \square T \square)

DC 2-Wire (PUR Cable/Self-diagnosis Output), AC 2-Wire and AC/DC 2-Wire

CSM_E2E_DS_E_13_2

(Standards do not apply to all models.)

Models with

DC 2-Wire (Self-diagnosis Output) and AC 2-Wire added to the lineup

- · Detecting ferrous metals.
- Models with different frequencies are also available to prevent mutual interference.
- Superior environment resistance with standard cable made of oilresistant PVC and sensing surface made of material that resists cutting oil.
- Useful to help prevent disconnection. Cable protector provided as a standard feature.



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 16.

Features

DC 2-Wire

Pre-wired models with oil-resistant reinforced PUR Cable added to the lineup



Oil Resistance (Insulation service life): twice or three times that of oil-resistant vinyl chloride



Cable Flexibility: approximately twice that of vinyl chloride cables



More Flexibility at -40°C

E2E Model Number Legend

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

No.	Classification	Code	Meaning	Remarks
1	Appearance	Х	Cylindrical (threaded)	
2	Sensing distance	Number	Sensing distance (Unit: mm)	Example:
2	Sensing distance	R	Indication of decimal point	1R5: 1.5 mm
3	Shielding	Blank	Shielded Model	
3	Sillelding	М	Unshielded Model	
	Device someho en d	D	DC 2-wire polarity/no polarity	Whether D models have
4	Power supply and output specifications	Т	AC/DC 2-wire	polarity is defined
	output specifications	Y	AC 2-wire	by number 10.
5	Form of output switching element	1	Normally open (NO)	
J	rom of output switching element	2	Normally closed (NC)	
6	Oscillation frequency type	Blank	Standard frequency	Used to prevent mutual
U	Oscillation frequency type	5	Different frequency	interference.
7	Self-diagnosis	Blank	No	
1	Sell-diagnosis	S	Yes	
8	Connection method	Blank	Pre-wired	
O	Connection method	M12-size metal connector		
		Blank	Connector Model AC 2-wire, DC 2-wire with self-diagnosis output, DC 2-wire with old pin arrangement	
9	Connector specifications	J	Pre-wired Connector Model 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	
10	DC 2-wife polarity	Т	No polarity	
		Blank	Standard PVC cable (oil resistant)	
11	Cable specifications	R	Flexible PVC cable (oil resistant)	
		U	Polyurethane cable (oil resistant and reinforced)	
12	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

DC 2-Wire (No Self-diagnosis Output, PUR Cable models) [Refer to Dimensions on page 18.]

Shielded Models

Appearance		nsing dis	tance	Connection method	Cable specifications	Polarity	Operation mode	Pin arrangement	Model
				Pre-wired Models	PUR		NO		E2E-X2D1-U 2M
M8				(2 m)	PUR	Yes	NC		E2E-X2D2-U 2M
IVIO	2 mm			M12 Pre-wired Smartclick Connector	PUR	165	NO	1: +V, 4: 0 V	E2E-X2D1-M1TGJ-U 0.3M
				Models (0.3 m)	PUR		NC	1: +V, 2: 0 V	E2E-X2D2-M1TGJ-U 0.3M
				Pre-wired Models	PUR		NO		E2E-X3D1-U 2M
M12	3 mn	n	(2 m)	FOR	Yes	NC		E2E-X3D2-U 2M	
	3 11111			M12 Pre-wired Smartclick Connector	PUR	163	NO	1: +V, 4: 0 V	E2E-X3D1-M1TGJ-U 0.3M
			Models (0.3 m)	FOR		NC	1: +V, 2: 0 V	E2E-X3D2-M1TGJ-U 0.3M	
		mm		Pre-wired Models	PUR		NO		E2E-X7D1-U 2M
M18	7		(2 m)	TOK	Yes	NC		E2E-X7D2-U 2M	
WITO	/		M12 Pre-wired Smartclick Connector	PUR	165	NO	1: +V, 4: 0 V	E2E-X7D1-M1TGJ-U 0.3M	
				Models (0.3 m)	TOR		NC	1: +V, 2: 0 V	E2E-X7D2-M1TGJ-U 0.3M
				Pre-wired Models	PUR		NO		E2E-X10D1-U 2M
M30		10 mm		(2 m)	FUIX	Yes	NC	—	E2E-X10D2-U 2M
WIOU		i O IIIII		M12 Pre-wired Smartclick Connector	DLID	163	NO	1: +V, 4: 0 V	E2E-X10D1-M1TGJ-U 0.3M
				Models (0.3 m)	PUR		NC	1: +V, 2: 0 V	E2E-X10D2-M1TGJ-U 0.3M

DC 2-Wire (Self-diagnosis Output models) [Refer to Dimensions on page 19.]

Shielded Models



Appearance	Sensing distance	Connection method	Cable specifications	Polarity	Operation mode	Pin arrangement	Model	
		Pre-wired Models (2 m)	PVC (oil-resistant)				E2E-X3D1S 2M *1	
M12	3 mm	M12 Connector Models				2: +V and diagnostic output 3: 0 V 4: +V and control output	E2E-X3D1S-M1	
		Pre-wired Models (2 m)	PVC (oil-resistant)				E2E-X7D1S 2M *1	
M18	7 mm	M12 Connector Models		Yes	NO	2: +V and diagnostic output 3: 0 V 4: +V and control output	E2E-X7D1S-M1	
		Pre-wired Models (2 m)	PVC (oil-resistant)				E2E-X10D1S 2M *1	
M30	10 mm	M12 Connector Models				2: +V and diagnostic output 3: 0 V 4: +V and control output	E2E-X10D1S-M1	

^{*1.} Models with different frequencies are also available. The model number is E2E-X □D15S (example: E2E-X3D15S 2M).

Unshielded Models



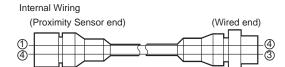
Appearance	Sensing distance		Connection method	Cable specifications	Polarity	Operation mode	Pin arrangement	Model
			Pre-wired Models (2 m)	PVC (oil-resistant)				E2E-X8MD1S 2M *1
M12	8 mm		M12 Connector Models				2: +V and diagnostic output 3: 0 V 4: +V and control output	E2E-X8MD1S-M1
			Pre-wired Models (2 m)	PVC (oil-resistant)				E2E-X14MD1S 2M *1
M18	14 ו	mm	M12 Connector Models		Yes	NO	2: +V and diagnostic output 3: 0 V 4: +V and control output	E2E-X14MD1S-M1
			Pre-wired Models (2 m)	PVC (oil-resistant)				E2E-X20MD1S 2M *1
M30		20 mm	M12 Connector Models	-			2: +V and diagnostic output 3: 0 V 4: +V and control output	E2E-X20MD1S-M1

^{*1.} Models with different frequencies are also available. The model number is E2E-X \(\sum MD15S\) (example: E2E-X8MD15S 2M).

Connector Pin Assignments of DC 2-Wire Models

- The connector pin assignments of each New E2E DC 2-Wire Model conform to IEC 947-5-2 Table III. (Only DC 2-Wire Models have been changed in comparison to the previous models.)
- The following models with conventional connector pin assignments are available as well. (Only NO Models can be used.) The cable at the right should also be used if the XW3D-P \square 55-G11/ XW3B-P□55-G11 Connector Junction Box is already being used.

Cable length	Model
500 mm	XS2W-D421-BY1



AC 2-Wire [Refer to Dimensions on page 21.]

Shielded Models

Appearance	Sensing distance	Connection method	Cable specifications	Operation mode	Pin arrangement	Model
M8	4.5	Dre wired Medele (2 m)	DVC (ail registent)	NO		E2E-X1R5Y1 2M *2
IVIO	1.5 mm	Pre-wired Models (2 m)	PVC (oil-resistant)	NC		E2E-X1R5Y2 2M *2
		Dra wired Madala (2 m)	D)/C (ail registent)	NO		E2E-X2Y1 2M *1
M12		Pre-wired Models (2 m)	PVC (oil-resistant)	NC		E2E-X2Y2 2M
	2 mm	M12 Connector Models		NO	(3, 4): (AC, AC)	E2E-X2Y1-M1
		W12 Connector Wodels		NC	(1, 2): (AC, AC)	E2E-X2Y2-M1
		Described Madala (O.s.)	D) (O (-ili-tt)	NO		E2E-X5Y1 2M *1
M18	5 mm	Pre-wired Models (2 m)	PVC (oil-resistant)	NC		E2E-X5Y2 2M
IVI IO	o min	M12 Connector Models		NO	(3, 4): (AC, AC)	E2E-X5Y1-M1
		W12 Connector Wodels		NC	(1, 2): (AC, AC)	E2E-X5Y2-M1
		Dre wired Medala (2 m)	DVC (eil registent)	NO		E2E-X10Y1 2M *1
Mao	40	Pre-wired Models (2 m)	PVC (oil-resistant)	NC		E2E-X10Y2 2M
M30	10 mm	M12 Connector Models		NO	(3, 4): (AC, AC)	E2E-X10Y1-M1
		WIZ Connector Models		NC	(1, 2): (AC, AC)	E2E-X10Y2-M1

^{*1.} Models with different frequencies are also available. The model number is E2E-X □Y□5 (example: E2E-X5Y15 2M). *2. Discontinued at the end of March 2022.

Unshielded Models

Appearance	Sensing distance		tance	Connection method	Cable specifications	Operation mode	Pin arrangement	Model
M8				Pre-wired Models (2 m)	PVC (oil-resistant)	NO		E2E-X2MY1 2M *2
IVIO	2 mm			Fre-wired Models (2 III)	PVC (OII-lesistant)	NC		E2E-X2MY2 2M *2
				Dro wired Medele (2 m)	PVC (oil-resistant)	NO		E2E-X5MY1 2M *1
M12	5 mm			Pre-wired Models (2 m)	PVC (oil-resistant)	NC		E2E-X5MY2 2M
IVI IZ				M12 Connector Models		NO	(3, 4): (AC, AC)	E2E-X5MY1 2M
				W12 Connector Wodels	<u> </u>	NC	(1, 2): (AC, AC)	E2E-X5MY2-M1
				Pre-wired Models (2 m)	PVC (oil-resistant)	NO		E2E-X10MY1 2M *1
M18		10 mm		Fre-wired Models (2 III)	PVC (OII-lesistant)	NC		E2E-X10MY2 2M
IVI IO				M12 Connector Modela		NO	(3, 4): (AC, AC)	E2E-X10MY1-M1
				M12 Connector Models		NC	(1, 2): (AC, AC)	E2E-X10MY2-M1
				Dro wired Madela (2 m)	D)/C (ail registent)	NO		E2E-X18MY1 2M *1
Mao			10 mm	Pre-wired Models (2 m)	PVC (oil-resistant)	NC		E2E-X18MY2 2M
M30			18 mm	M12 Connector Models		NO	(3, 4): (AC, AC)	E2E-X18MY1-M1
				W12 Connector Wodels		NC	(1, 2): (AC, AC)	E2E-X18MY2-M1

^{*1.} Models with different frequencies are also available. The model number is E2E-X □MY□5 (example: E2E-X5MY15 2M). *2. Discontinued at the end of March 2022.

AC/DC 2-Wire [Refer to *Dimensions* on page 23.] Shielded Models

Appearance	Sensing distance	Connection method	Cable specifications	Operation mode	Pin arrangement	Applicable connector code	Model
M12	3 mm	Pre-wired Models (2 m)	PVC (oil-resistant)				E2E-X3T1 2M
M18	7 mm	Pre-wired Models (2 m)	PVC (oil-resistant)	NO			E2E-X7T1 2M
M30	10 mm	Pre-wired Models (2 m)	PVC (oil-resistant)				E2E-X10T1 2M

Note: There are no unshielded models.

Accessories (Sold Separately)

Sensor I/O Connectors

A Sensor I/O Connector is not provided with the Sensor. It must be ordered separately as required.

Round Water-resistant Connectors XS5 Series

Appearance	Cable Specification	Туре	Cable diameter (mm)	Cable Connection Direction	Cable length (m)	Sensor I/O Connector model number	Applicable Proximity Sensor model number	
M12 Smartclick		Sockets on One Cable End 6 dia.		Straight	2 m	XS5F-D421-D80-P		
Connector Straight type	Oil-resistant polyurethane cable		6 dia.	Chaight	5 m	XS5F-D421-G80-P		
				Right-angle	2 m	XS5F-D422-D80-P	- E2E-X□D□-M1TGJ-U	
Office					5 m	XS5F-D422-G80-P		
Right-angle type		Socket and Plug on Cable Ends		Straight (Socket)/ Straight (Plug)	2 m	XS5W-D421-D81-P		
6					5 m	XS5W-D421-G81-P		

Round Water-resistant Connectors XS2 Series

Appearance	Cable Specification	Туре	Cable diameter (mm)	Cable Connection Direction	Cable length (m)	Sensor I/O Connector model number	Applicable Proximity Sensor model number	
				Straight	2 m	XS2F-D421-D80-F		
M40		Sockets on One Cable End		Straight	5 m	XS2F-D421-G80-F	- E2E-X□D□S-M1	
M12 Screw Connector	Fire-retardant, PVC Robot Cable		0 4:-	Dialet anale	2 m	XS2F-D422-D80-F		
Ctraight turns			6 dia.	Right-angle	5 m	XS2F-D422-G80-F	EZE-XUDUS-MIT	
Straight type		Socket and Plug		Straight (Socket)/ Straight (Plug)	2 m	XS2W-D421-D81-F		
N. Carlotte		on Cable Ends			5 m	XS2W-D421-G81-F		
		Sockets on One	A	Straight	2 m	XS2F-A421-DB0-F	E2E-X□Y1-M1	
Right-angle type	Fire-retardant,				5 m	XS2F-A421-GB0-F		
gg,p-	PVC Robot Cable	Cable End	6 dia.	57.7	2 m	XS2F-A422-DB0-F		
The said				Right-angle	5 m	XS2F-A422-GB0-F		
0	Fire-retardant,	Sockets on One			2 m	XS2F-A421-D90-F		
	PVC Robot Cable	Cable End	6 dia.	Straight	5 m	XS2F-A421-G90-F	E2E-X□Y2-M1	

Note: For details, refer to Sensor I/O Connectors/Sensor Controllers on your OMRON website.

Ratings and Specifications

DC 2-Wire (E2E-X D)

ed Shielded D	Iron,							
10 mm ±10% n 0 to 8 mm ring Data on pages 1 0 × 1 mm	20 mm ±10% 0 to 16 mm 0 and 11. Iron, 54 × 54 × 1 mm							
n 0 to 8 mm ring Data on pages 1 0 × 1 mm	0 to 16 mm 0 and 11. Iron, 54 × 54 × 1 mm							
ring Data on pages 1	0 and 11. Iron,							
0 × 1 mm	Iron, 54 × 54 × 1 mm							
0 × 1 mm	Iron, 54 × 54 × 1 mm							
	54 × 54 × 1 mm							
letails.	0.1 kHz							
letails.								
letails.								
letails.								
letails.								
letails.								
details.								
Operating/storage: 35% to 95% (with no condensation)								
±15% max. of sensing distance at 23°C in the temperature range of –25 to 70°C ±10% max. of sensing distance at 23°C in the temperature range of –25 to 70°C								
±1% max. of sensing distance at rated voltage in the rated voltage ±15% range								
50 MΩ min. (at 500 VDC) between current-carrying parts and case								
1000 VAC, 50/60 Hz for 1 minute between current carry parts and case								
Destruction: 10 to 55 Hz, 1.5-mm double amplitude for 2 hours each in X, Y, and Z directions								
Destruction: 500 m/s ² 10 times each in X, Y, and Z directions and Z directions								
Pre-wired Models: IEC 60529 IP67, in-house standards: oil-resistant Connector Models: IEC 60529 IP67								
r Models (Standard o	able length: 0.3 m)							
Approx. 175 g								
Approx. 90 g								
Zinc-plated iron								

^{*1.} Use the E2E within the range in which the setting indicator (green LED) is ON (except D2 Models).
*2. The response frequency is an average value.
Measurement conditions are as follows: standard sensing object, a distance of twice the standard sensing object, and a set distance of half the sensing distance.

AC 2-Wire (E2E-X□Y□)

	Size	ı	M8	N	112	M18		N	130			
	Shielded	Shielded	Unshielded	Shielded	Unshielded	Shielded	Unshielded	Shielded	Unshielded			
Item	Model	E2E-X1R5Y	E2E-X2MY□	E2E-X2Y□	E2E-X5MY□	E2E-X5Y□	E2E-X10MY	E2E-X10Y□	E2E-X18MY□			
Sensing di	istance	1.5 mm ±10%	2 mm ±10%		5 mm ±10%		10 mm ±10%		18 mm ±10%			
Set distan	ce	0 to 1.2 mm	0 to 1.6 mm		0 to 4 mm		0 to 8 mm		0 to 14 mm			
Differentia	l travel	10% max. of se	nsing distance		<u> </u>		-!-		<u> </u>			
Detectable	object	Ferrous metal (The sensing dista	nce decreases w	th non-ferrous me	tal. Refer to <i>Engi</i>	neering Data on pa	age 11.)				
Standard s	sensing	Iron, 8 × 8 × 1 mm	Iron, 12 × 12 × 1	mm	Iron, 15 × 15 × 1 mm	Iron, 18 × 18 × 1 mm	Iron, 30 × 30 × 1	mm	Iron, 54 × 54 × 1 mm			
Response	frequency	25 Hz	25 Hz									
Power sup (operating range)*1	pply voltage voltage	24 to 240 VAC	(20 to 264 VAC), §	50/60 Hz								
Leakage c	urrent	1.7 mA max.										
Control	Load current *2	5 to 100 mA		5 to 200 mA		5 to 300 mA						
	Residual voltage	Refer to Engine	ering Data on pag	e 12.								
Indicators		Operation indica	ator (red)									
Operation (with sens approachi	ing object	Y1 Models: NO Y2 Models: NC	Refer to the tir	ning charts unde	r I/O Circuit Diagra	ams on page 14 f	or details.					
Protection	circuits	Surge suppressor										
Ambient to range *1*2	emperature	Operating/Stora (with no icing or	age: –25 to 70°C condensation)	Operating/Stora	age: -40 to 85°C (v	with no icing or co	ondensation)					
Ambient humidity r	ange	Operating/stora	operating/storage: 35% to 95% (with no condensation)									
Temperatu influence	ıre	±10% max. of sensing distance at 23°C in the temperature range of –40 to 85°C, ±10% max. of sensing distance at 23°C in the temperature range of –25 to 70°C ±10% max. of sensing distance at 23°C in the temperature range of –25 to 70°C										
Voltage in	fluence	±1% max. of sensing distance at rated voltage in the rated voltage ±15% range										
Insulation	resistance	$50~\text{M}\Omega$ min. (at $500~\text{VDC}$) between current-carrying parts and case										
Dielectric	strength	4,000 VAC (M8 Models: 2,000 VAC), 50/60 Hz for 1 min between current-carrying parts and case										
Vibration r	resistance	Destruction: 10 to 55 Hz, 1.5-mm double amplitude for 2 hours each in X, Y, and Z directions										
Shock resi	istance	Destruction: 500 m/s ² 10 times each in X, Y, and Z directions Destruction: 1,000 m/s ² 10 times each in X, Y, and Z directions										
Degree of	protection	Pre-wired Models: IEC 60529 IP67, in-house standards: oil-resistant Connector Models: IEC 60529 IP67										
Connectio	n method	Pre-wired Mode	els (Standard cable	e length: 2 m) and	d Connector Mode	ls						
Weight (packed	Pre- wired Models Model	Approx. 60 g		Approx. 70 g		Approx. 130 g		Approx. 175 g				
state)	Connector Models	Approx. 15 g		Approx. 25 g		Approx. 40 g		Approx. 90 g				
	Case	Stainless steel	(SUS303)	Nickel-plated br	ass	ı		•				
	Sensing surface	PBT										
Materials	Clamp- ing nuts	Nickel-plated br	rass									
	Toothed washer	Zinc-plated iron										
Accessori	es	Instruction man	ual									
1. When su	ipplying 24 VA	AC to any of the a	above models. ma	ke sure that the o	perating ambient	temperature rand	e is at least –25°C).				

^{*1.} When supplying 24 VAC to any of the above models, make sure that the operating ambient temperature range is at least -25°C.
*2. When using an M18 or M30 Connector Model at an ambient temperature between 70 and 85°C, make sure that the Sensor has a control output (load current) of 5 to 200 mA max.

AC/DC 2-Wire (E2E-X□T1)

	Size	M12	M18	M30		
Shielded		Shielded				
Item	Model	E2E-X3T1	E2E-X7T1	E2E-X10T1		
Sensing dista	nce	3 mm ±10%	7 mm ±10%	10 mm ±10%		
Set distance		0 to 2.4 mm	0 to 5.6 mm	0 to 8 mm		
Differential tra	avel	10% max. of sensing distance				
Detectable ob	ject	Ferrous metal (The sensing distance decreases with non-ferrous metal. Refer to <i>Engineering Data</i> on page 10.)				
Standard sens	sing object	Iron, 12 × 12 × 1 mm	Iron, 18 × 18 × 1 mm	Iron, $30 \times 30 \times 1$ mm		
Response	DC	1 kHz	0.5 kHz	0.4 kHz		
frequency *1	AC	25 Hz				
Power supply (operating vol	voltage tage range) *2	24 to 240 VDC (20 to 264 VDC) 48 to 240 VAC (40 to 264 VAC)				
Leakage curre	ent	DC: 1 mA max. AC: 2 mA max.				
Control	Load current	5 to 100 mA				
output	<u> </u>					
Indicators		Operation indicator (red), Setting indicator (green)				
Operation mode (with sensing object approaching)		NO (Refer to the timing charts under I/O Circuit Diagrams on page 14 for details.)				
Protection cir	cuits	Load short-circuit protection (20 to 40 VDC only), Surge suppressor				
Ambient temp	erature range	Operating: –25 to 70°C, Storage: –40 to 85°C (with no icing or condensation)				
Ambient hum	idity range	Operating/Storage: 35% to 95% (with no condensation)				
Temperature i	nfluence	±10% max. of sensing distance at 23°C in the temperature range of –25 to 70°C				
Voltage influe	nce	$\pm 1\%$ max. of sensing distance at rated voltage in the rated voltage $\pm 15\%$ range				
Insulation res	istance	50 MΩ min. (at 500 VDC) between current-carrying parts and case				
Dielectric stre	ngth	4,000 VAC, 50/60 Hz for 1 minute between current-carrying parts and case				
Vibration resi	stance	Destruction: 10 to 55 Hz, 1.5-mm double amplitude for 2 hours each in X, Y, and Z directions				
Shock resista	nce	Destruction: 1,000 m/s² 10 times each in X, Y, and Z directions				
Degree of pro	tection	IEC 60529 IP67, in-house standards: oil-resistant				
Connection m	ethod	Pre-wired Models (Standard cable length: 2 m)				
Weight (packed state)		Approx. 80 g	Approx. 140 g	Approx. 190 g		
	Case	Nickel-plated brass				
Materials	Sensing surface	РВТ				
	Clamping nuts	Nickel-plated brass				
	Toothed washer	Zinc-plated iron				
Accessories		Instruction manual				

^{*1.} The response frequency is an average value. Measurement conditions are as follows: standard sensing object, a distance of twice the standard sensing object, and a set distance of half the sensing distance.

*2. Power Supply Voltage Waveform:
Use a sine wave for the power supply. Using a rectangular AC power supply may result in faulty reset.

Dimensions

Sensors DC 2-Wire

No Self-diagnosis Output, PUR Cable models

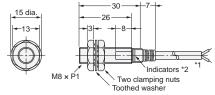
Pre-wired Models (Shielded)



Pre-wired Connector Models (Shielded)



E2E-X2D□-U

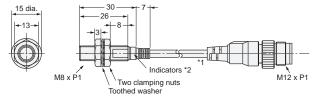


- *1. 4-dia. polyurethane-insulated round cable with 2 conductors (Conductor cross section:
- 0.3 mm², Ínsulator diameter: 1.3 mm), Standard length: 2 m

 The cable can be extended up to 200 m (separate metal conduit).

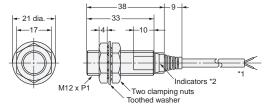
 2. D1 Models: Operation indicator (red) and setting indicator (green),
 D2 Models: Operation indicator (red)

E2E-X2D□-M1TGJ-U



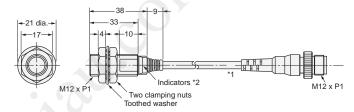
- *1. 4-dia. Polyurethane insulated round cable, Standard length: 0.3 m *2. D1 Models: Operation indicator (red) and Setting indicator (green), D2 Models: Operation indicator (red)

E2E-X3D□-U



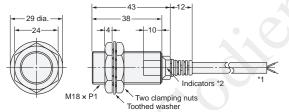
- *1. 4-dia. polyurethane-insulated round cable with 2 conductors (Conductor cross section: 0.3 mm², Insulator diameter: 1.3 mm), Standard length: 2 m
 The cable can be extended (separate metal conduit) up to 200 m for the control output.
 *2. D1 Models: Operation indicator (red) and setting indicator (green), D2 Models: Operation indicator (red)

E2E-X3D□-M1TGJ-U



- *1. 4-dia. Polyurethane insulated round cable, Standard length: 0.3 m*2. D1 Models: Operation indicator (red) and Setting indicator (green), D2 Models: Operation indicator (red)

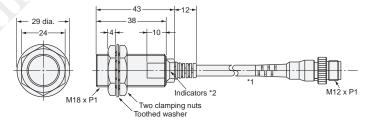
E2E-X7D□-U



- *1. 6-dia. polyurethane-insulated round cable with 2 conductors (Conductor cross section: 0.5 mm², Insulator diameter: 1.9 mm), Standard length: 2 m
- The cable can be extended (separate metal conduit) up to 200 m for the control output.

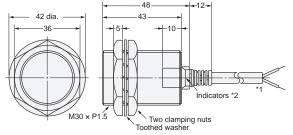
 *2. D1 Models: Operation indicator (red) and setting indicator (green),
 D2 Models: Operation indicator (red)

E2E-X7D□-M1TGJ-U



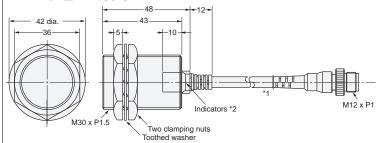
- 1, 6-dia, Polyurethane insulated round cable, Standard length; 0,3 m
- *2. D1 Models: Operation indicator (red) and Setting indicator (green), D2 Models: Operation indicator (red)

E2E-X10D□-U



- *1. 6-dia. polyurethane-insulated round cable with 2 conductors (Conductor cross section: 0.5 mm², Insulator diameter: 1.9 mm), Standard length: 2 m The cable can be extended (separate metal conduit) up to 200 m for the control output.
 *2. D1 Models: Operation indicator (red) and setting indicator (green),
- D2 Models: Operation indicator (red)

E2E-X10D -M1TGJ-U



- *1. 6-dia. Polyurethane insulated round cable, Standard length: 0.3 m*2. D1 Models: Operation indicator (red) and Setting indicator (green), D2 Models: Operation indicator (red)



Dimensions	M8	M12	M18	M30
F (mm)	8.5 ^{+0.5} dia.	12.5 ^{+0.5} dia.	18.5 ^{+0.5} dia.	30.5 ^{+0.5} dia.

DC 2-Wire Self-diagnosis Output models

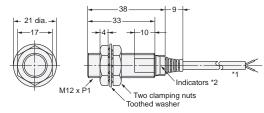
Pre-wired Models (Shielded)



Pre-wired Models (Unshielded)

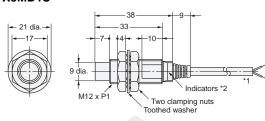


E2E-X3D1S



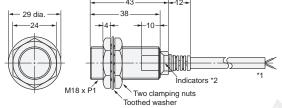
- *1. 4-dia. polyurethane-insulated round cable with 2 conductors (Conductor cross section: 0.3 mm², Insulator diameter: 1.3 mm), Standard length: 2 m The cable can be extended (separate metal conduit) up to 200 m for the control output
- and up to 100 m for the diagnostic output.
 *2. Operation indicator (red) and setting indicator (green)

E2E-X8MD1S



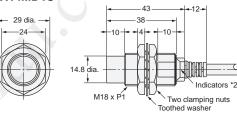
- *1. 4-dia. polyurethane-insulated round cable with 2 conductors (Conductor cross section: 0.3 mm², Insulator diameter: 1.3 mm), Standard length: 2 m
 The cable can be extended (separate metal conduit) up to 200 m for the control output and up to 100 m for the diagnostic output.
 *2. Operation indicator (red) and setting indicator (green)

E2E-X7D1S



- *1, 6-dia, polyurethane-insulated round cable with 2 conductors (Conductor cross section; 0.5 mm², Insulator diameter: 1.9 mm), Standard length: 2 m
 The cable can be extended (separate metal conduit) up to 200 m for the control output
- and up to 100 m for the diagnostic output. *2. Operation indicator (red) and setting indicator (green)

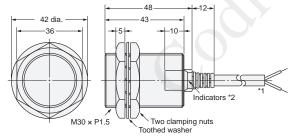
E2E-X14MD1S



- *1. 6-dia. polyurethane-insulated round cable with 2 conductors (Conductor cross section: 0.5 mm², Insulator diameter: 1.9 mm), Standard length: 2 m

 The cable can be extended (separate metal conduit) up to 200 m for the control output and up to 100 m for the diagnostic output.
- *2. Operation indicator (red) and setting indicator (green)

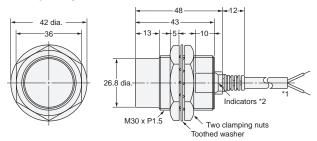
E2E-X10D1S



- *1. 6-dia. polyurethane-insulated round cable with 2 conductors (Conductor cross section: 0.5 mm², Insulator diameter: 1.9 mm), Standard length: 2 m

 The cable can be extended (separate metal conduit) up to 200 m for the control output and up to 100 m for the diagnostic output.
- *2. Operation indicator (red) and setting indicator (green)

E2E-X20MD1S



- *1. 6-dia. polyurethane-insulated round cable with 2 conductors (Conductor cross section: 0.5 mm², Insulator diameter: 1.9 mm), Standard length: 2 m
 The cable can be extended (separate metal conduit) up to 200 m for the control output and up to 100 m for the diagnostic output.
 *2. Operation indicator (red) and setting indicator (green)



Dimension	M12	M18	M30
F (mm)	12.5 ^{+0.5} dia.	18.5 ^{+0.5} dia.	30.5 ^{+0.5} dia.

Sensors DC 2-Wire

Self-diagnosis Output models

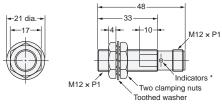
M12 Connector Models (Shielded)



M12 Connector Models (Unshielded)

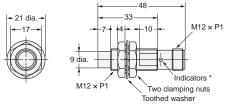


E2E-X3D1S-M1



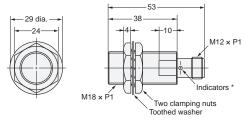
* Operation indicator (red), Setting indicator (green)

E2E-X8MD1S-M1



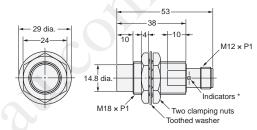
* Operation indicator (red), Setting indicator (green)

E2E-X7D1S-M1



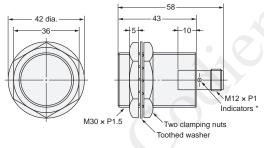
* Operation indicator (red), Setting indicator (green)

E2E-X14MD1S-M1



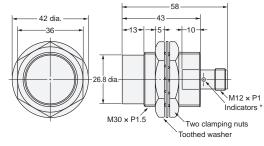
* Operation indicator (red), Setting indicator (green)

E2E-X10D1S-M1



* Operation indicator (red), Setting indicator (green)

E2E-X20MD1S-M1



* Operation indicator (red), Setting indicator (green)



Dimension	M12 M18		M30	
F (mm)	12.5 ^{+0.5} dia.	18.5 ^{+0.5} dia.	30.5 ^{+0.5} dia.	

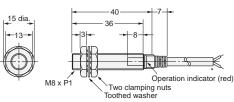
AC 2-Wire

Pre-wired Models (Shielded)

Pre-wired Models (Unshielded)



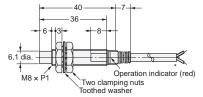
E2E-X1R5Y□



* 4-dia. vinyl-insulated round cable with 2 conductors (Conductor cross section: $0.3~\text{mm}^2$, Insulator, diameter: 1.3 mm), Standard length: 2 m The cable can be extended up to 200 m (separate metal conduit).

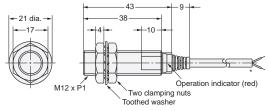
E2E-X2MY□





* 4-dia. vinyl-insulated round cable with 2 conductors (Conductor cross section: 0.3 mm², Insulator, diameter: 1.3 mm), Standard length: 2 m The cable can be extended up to 200 m (separate metal conduit).

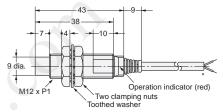
E2E-X2Y



* 4-dia. vinyl-insulated round cable with 2 conductors (Conductor cross section: 0.3 mm², Insulator, diameter: 1.3 mm), Standard length: 2 m The cable can be extended up to 200 m (separate metal conduit).

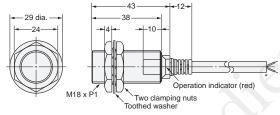
E2E-X5MY□





4-dia, vinvl-insulated round cable with 2 conductors (Conductor cross section: 0.3 mm², Insulator, diameter: 1.3 mm), Standard length: 2 m The cable can be extended up to 200 m (separate metal conduit).

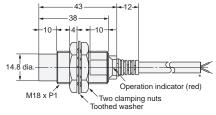
E2E-X5Y□



* 6-dia. vinyl-insulated round cable with 2 conductors (Conductor cross section: 0.5 mm², Insulator, diameter: 1.9 mm), Standard length: 2 m The cable can be extended up to 200 m (separate metal conduit).

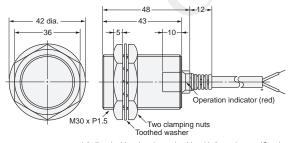
E2E-X10MY□





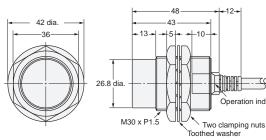
* 6-dia. vinyl-insulated round cable with 2 conductors (Conductor cross section: 0.5 mm², Insulator, diameter: 1.9 mm), Standard length: 2 m The cable can be extended up to 200 m (separate metal conduit).

E2E-X10Y□



* 6-dia. vinyl-insulated round cable with 2 conductors (Conductor cross section: 0.5 mm², Insulator, diameter: 1.9 mm), Standard length: 2 m The cable can be extended up to 200 m (separate metal conduit).

E2E-X18MY□



* 6-dia. vinyl-insulated round cable with 2 conductors (Conductor cross section: 0.5 mm², Insulator, diameter: 1.9 mm), Standard length: 2 m The cable can be extended up to 200 m (separate metal conduit).

Mounting Hole Dimensions



Dimensions	M8	M12	M18	M30
F (mm)	8.5 ^{+0.5} dia.	12.5 ^{+0.5} dia.	18.5 ^{+0.5} dia.	30.5 ^{+0.5} dia.

Operation indicator (red)

Sensors AC 2-Wire

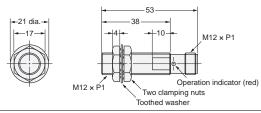
M12 Connector Models (Shielded)



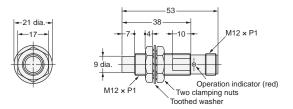
M12 Connector Models (Unshielded)



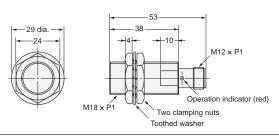
E2E-X2Y□-M1



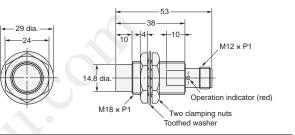
E2E-X5MY□-M1



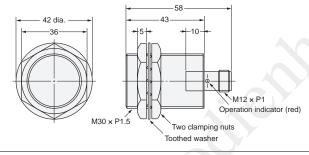
E2E-X5Y□-M1



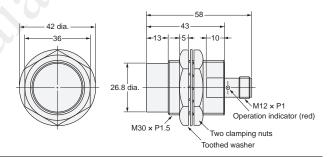
E2E-X10MY□-M1



E2E-X10Y□-M1



E2E-X18MY□-M1



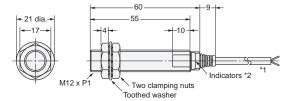


Dimension	M12	M18	M30
F (mm)	12.5 ^{+0.5} dia.	18.5 ^{+0.5} dia.	$30.5^{+0.5}_{0}$ dia.

AC/DC 2-Wire

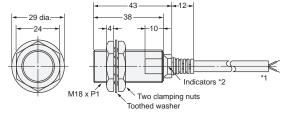
Pre-wired Models (Shielded)

E2E-X3T1



- *1. 4-dia. vinyl-insulated round cable with 2 conductors (Conductor cross section: 0.3 mm², Insulator diameter: 1.3 mm), Standard length: 2 m The cable can be extended up to 200 m (separate metal conduit).
 *2. Operation indicator (red), Setting indicator (green)

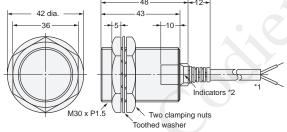
E2E-X7T1



- *1. 6-dia. vinyl-insulated round cable with 2 conductors (Conductor cross section: 0.5 mm², Insulator diameter: 1.9 mm), Standard length: 2 m

 The cable can be extended (separate metal conduit) up to 200 m for the control
- output and up to 100 m for the diagnostic output.
 *2. Operation indicator (red), Setting indicator (green)

E2E-X10T1



- *1. 6-dia. vinyl-insulated round cable with 2 conductors (Conductor cross section: 0.5 mm², Insulator diameter: 1.9 mm), Standard length: 2 m

 The cable can be extended (separate metal conduit) up to 200 m for the control output and up to 100 m for the diagnostic output.
- *2. Operation indicator (red), Setting indicator (green)

Mounting Hole Dimensions

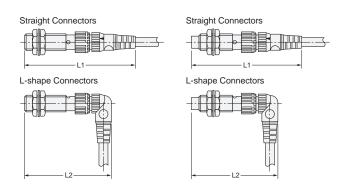


Dimensions	M12	M18	M30
F (mm)	12.5 ^{+0.5} dia.	18.5 ^{+0.5} dia.	30.5 ^{+0.5} dia.

Dimensions for Proximity Sensors with Sensor I/O Connectors

Shielded Models

Unshielded Models



Dimensions with the XS2F Connected

(Unit: mm)

Dimension Sensor diameter		L1	L2
M8		Approx. 75	Approx. 62
M12*	DC	Approx. 80	Approx. 67
	AC	Approx. 85	Approx. 72
M18		Approx. 85	Approx. 72
M30		Approx. 90	Approx. 77

^{*} The overall length of the Sensor is different between AC and DC Models for Sensors with diameters of M12. This will change the dimension when the I/O Connector is connected.

Mounting Brackets

Protective Covers

Sputter Protective Covers

Refer to Y92 ☐ for details.