

E57 Two-Wire (AC, AC/DC, DC) Proximity Sensors



E57 Two-Wire (AC, AC/DC, DC) Proximity Sensors

Product Description

Eaton carries several options for your sensing needs in the E57 two-wire family. The stainless steel models are available in a standard length or short body, while available in AC or AC/DC configurations. The nickel-brass body models are available in standard length and either AC or DC two-wire configurations.

All of these are available in NPN or PNP with cable connections or micro connectors. The stainless steel standard length models are also available with mini connectors.

The stainless steel models in both lengths have 360 degree LEDs while the nickel-brass models have a single LED indicator.

Extended sensing ranges are also available in the stainless steel and nickel-brass standard length models, while shielded and unshielded models are offered throughout the E57 two-wire sensor products.

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Standards and Certifications

Stainless steel body:

- cULus Listed
- CE (AC/DC models only)



Nickel-brass body:

- cCSAus
- CE (DC models only)



⚠ DANGER

THIS SENSOR IS NOT A SAFETY DEVICE AND IS NOT INTENDED TO BE USED AS A SAFETY DEVICE. This sensor is designed only to detect and read certain data in an electronic manner and perform no use apart from that, specifically no safety-related use. This sensor product does not include self-checking redundant circuitry, and the failure of this sensor product could cause either an energized or de-energized output condition, which could result in death, serious bodily injury, or property damage.

Highlighted Comparisons

Description	Stainless Steel	Stainless Steel Short Body	Nickel-Brass
Current ratings	250–500 mA	250–500 mA	200 mA
Enclosure ratings	NEMA 4, 4K, 6, 6P, 12, 13, IEC IP6, IP69K7	NEMA 4, 4K, 6, 6P, 12, 13, IEC IP67	IP67, IP69K
Operating temperature	–25 to 70 °C	–25 to 70 °C	–25 to 70 °C
Indicator	360° LED	360° LED	LED
Increased shock and vibration ratings	Yes	Yes	No

For the most current information on this product, visit our Web site: www.eaton.com

For Customer Service in the U.S. call 1-877-ETN CARE (386-2273), in Canada call 1-800-268-3578.



For Application Assistance in the U.S. and Canada call 1-800-426-9184.

Product Selection

Stainless Steel Body (Standard Length)

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Two-Wire Sensors

	Operating Voltage	Sensing Range (Sn)	Shielding	Connection Type ①	NO Output Catalog Number	NC Output Catalog Number	
	12 mm Diameter End Sensing						
	20–250 Vac	2 mm (standard range)	Shielded	2-meter cable	E57LAL12A2	E57LBL12A2	
				3-pin micro AC connector	E57LAL12A2SA ☺	E57LBL12A2SA ☺	
				3-pin micro AC pigtail connector	E57LAL12A2SP ☺	E57LBL12A2SP ☺	
		4 mm (standard range)	Unshielded	2-meter cable	E57LAL12A2E	E57LBL12A2E	
				3-pin micro AC connector	E57LAL12A2EA ☺	E57LBL12A2EA ☺	
				3-pin micro AC pigtail connector	E57LAL12A2EP ☺	E57LBL12A2EP ☺	
	20–132 Vac	6 mm (extended range)	Semi-shielded	2-meter cable	E57-12LE06-A	E57-12LE06-A1	
				3-pin micro AC connector	E57-12LE06-AA ☺	E57-12LE06-A1A ☺	
				3-pin micro AC pigtail connector	E57-12LE06-AP ☺	—	
		10 mm (extended range)	Non-embeddable	2-meter cable	E57-12LE10-A	E57-12LE10-A1	
				3-pin micro AC connector	E57-12LE10-AA ☺	E57-12LE10-A1A ☺	
				3-pin micro AC pigtail connector	E57-12LE10-AP ☺	E57-12LE10-A1P ☺	
	40–250 Vac 50/60 Hz② 20–250 Vdc	2 mm (standard range)	Shielded	2-meter cable	E57SAL12A2	E57SBL12A2	
				3-pin micro AC connector	E57SAL12A2SA ☺	E57SBL12A2SA ☺	
				3-pin mini-connector	E57MAL12A2B1 ☺	—	
		4 mm (standard range)	Unshielded	2-meter cable	E57SAL12A2E	E57SBL12A2E	
				3-pin micro AC connector	E57SAL12A2EA ☺	E57SBL12A2EA ☺	
	18 mm Diameter End Sensing						
	20–250 Vac	5 mm (standard range)	Shielded	2-meter cable	E57LAL18A2	E57LBL18A2	
				3-pin micro AC connector	E57LAL18A2SA ☺	E57LBL18A2SA ☺	
				3-pin micro AC pigtail connector	E57LAL18A2SP ☺	E57LBL18A2SP ☺	
				3-pin mini-connector	E57MAL18A2B1 ☺	E57MBL18A2B1 ☺	
		8 mm (standard range)	Unshielded	2-meter cable	E57LAL18A2E	E57LBL18A2E	
				3-pin micro AC connector	E57LAL18A2EA ☺	E57LBL18A2EA ☺	
				3-pin micro AC pigtail connector	E57LAL18A2EP ☺	E57LBL18A2EP ☺	
				3-pin mini-connector	E57MAL18A2EB1 ☺	E57MBL18A2EB1 ☺	
		20–132 Vac	12 mm (extended range)	Semi-shielded	2-meter cable	E57-18LE12-A	E57-18LE12-A1
					3-pin micro AC connector	E57-18LE12-AA ☺	E57-18LE12-A1A ☺
					3-pin micro AC pigtail connector	E57-18LE12-AP ☺	E57-18LE12-A1P ☺
					3-pin mini-connector	E57-18LE12-AB ☺	E57-18LE12-A1B ☺
	18 mm (extended range)		Non-embeddable	2-meter cable	E57-18LE20-A	E57-18LE20-A1	
				3-pin micro AC connector	E57-18LE20-AA ☺	E57-18LE20-A1A ☺	
				3-pin micro AC pigtail connector	E57-18LE20-AP ☺	E57-18LE20-A1P ☺	
				3-pin mini-connector	E57-18LE20-AB ☺	E57-18LE20-A1B ☺	
	40–250 Vac 50/60 Hz② 20–250 Vdc	5 mm (standard range)	Shielded	2-meter cable	E57SAL18A2	E57SBL18A2	
				3-pin micro AC connector	E57SAL18A2SA ☺	E57SBL18A2SA ☺	
		8 mm (standard range)	Unshielded	2-meter cable	E57SAL18A2E	E57SBL18A2E	
				3-pin micro AC connector	E57SAL18A2EA ☺	E57SBL18A2EA ☺	

Notes

☺ See listing of compatible connector cables on **Page V8-T3-40**.




① For cable lengths longer than 2 meters, add the number of the desired length in meters to the end of the listed catalog number (for catalog numbers ending with a number, add an **S** and then the length). Examples for a 5-meter cable: E57-18LE12-A becomes E57-18LE12-A**5**; E57LAL12A2 becomes E57LAL12A2**S5**.

② Avoid wiring these AC/DC models in series as the sensors may not perform reliably. Contact Eaton's Applications Engineering at 1-800-426-9184 with questions.

Stainless Steel Short Body

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Two-Wire Sensors

	Operating Voltage	Sensing Range (Sn)	Shielding	Connection Type ①	NO Output Catalog Number	NC Output Catalog Number
	12 mm Diameter					
	20–250 Vac	2 mm	Shielded	2-meter cable	E57SAL12A4	E57SBL12A4
				3-pin micro AC connector	E57SAL12A4SA ☹	E57SBL12A4SA ☹
		4 mm	Unshielded	2-meter cable	E57SAL12A4E	E57SBL12A4E
				3-pin micro AC connector	E57SAL12A4EA ☹	E57SBL12A4EA ☹
	40–250 Vac 50/60 Hz② 20–250 Vdc	2 mm	Shielded	2-meter cable	E57SAL12A2	E57SBL12A2
				3-pin micro AC connector	E57SAL12A2SA ☹	E57SBL12A2SA ☹
		4 mm	Unshielded	2-meter cable	E57SAL12A2E	E57SBL12A2E
				3-pin micro AC connector	E57SAL12A2EA ☹	E57SBL12A2EA ☹
		18 mm Diameter				
20–250 Vac		5 mm	Shielded	2-meter cable	E57SAL18A4	E57SBL18A4
				3-pin micro AC connector	E57SAL18A4SA ☹	E57SBL18A4SA ☹
		8 mm	Unshielded	2-meter cable	E57SAL18A4E	E57SBL18A4E
				3-pin micro AC connector	E57SAL18A4EA ☹	E57SBL18A4EA ☹
40–250 Vac 50/60 Hz② 20–250 Vdc		5 mm	Shielded	2-meter cable	E57SAL18A2	E57SBL18A2
				3-pin micro AC connector	E57SAL18A2SA ☹	E57SBL18A2SA ☹
		8 mm	Unshielded	2-meter cable	E57SAL18A2E	E57SBL18A2E
				3-pin micro AC connector	E57SAL18A2EA ☹	E57SBL18A2EA ☹
		30 mm Diameter				
	20–250 Vac	10 mm	Shielded	2-meter cable	E57SAL30A4	E57SBL30A4
				3-pin micro AC connector	E57SAL30A4SA ☹	E57SBL30A4SA ☹
		15 mm	Unshielded	2-meter cable	E57SAL30A4E	E57SBL30A4E
				3-pin micro AC connector	E57SAL30A4EA ☹	E57SBL30A4EA ☹
	40–250 Vac 50/60 Hz② 20–250 Vdc	10 mm	Shielded	2-meter cable	E57SAL30A2	E57SBL30A2
				3-pin micro AC connector	E57SAL30A2SA ☹	E57SBL30A2SA ☹
		15 mm	Unshielded	2-meter cable	E57SAL30A2E	E57SBL30A2E
				3-pin micro AC connector	E57SAL30A2EA ☹	E57SBL30A2EA ☹

Notes

☹ See listing of compatible connector cables on **Page V8-T3-40**.

① Cable models are supplied as standard with a 2-meter cable. A 5-meter cable is available by adding **S5** to the catalog number.
Example: E57SAL12T110 becomes E57SAL12T110**S5**.

② Avoid wiring these AC/DC models in series as the sensors may not perform reliably. Contact Eaton's Applications Engineering at 1-800-426-9184 with questions.