

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



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#### 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](http://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.

### Nickel-Brass Body

#### Two-Wire Sensors

	Operating Voltage	Sensing Range	Shielding	Output Type	Connection Type	NO Output Catalog Number	NC Output Catalog Number	
	<b>12 mm Diameter</b>							
	20–250 Vac	2 mm	Shielded	—	2-meter cable	<b>E57-12GS02-A</b>	<b>E57-12GS02-A1</b>	
					3-pin micro AC connector	<b>E57-12GS02-AAB</b> ☺	<b>E57-12GS02-A1AB</b> ☺	
		4 mm	Unshielded	—	2-meter cable	<b>E57-12GU04-A</b>	<b>E57-12GU04-A1</b>	
					3-pin micro AC connector	<b>E57-12GU04-AAB</b> ☺	<b>E57-12GU04-A1AB</b> ☺	
		10–30 Vdc	2 mm	Shielded	NPN/PNP	2-meter cable	<b>E57-12GS02-D</b>	<b>E57-12GS02-D1</b>
						4-pin micro DC connector	<b>E57-12GS02-DDB</b> ☺	<b>E57-12GS02-D1DB</b> ☺
	4 mm		Unshielded	NPN/PNP	2-meter cable	<b>E57-12GU04-D</b>	<b>E57-12GU04-D1</b>	
					4-pin micro DC connector	<b>E57-12GU04-DDB</b> ☺	<b>E57-12GU04-D1DB</b> ☺	
	8 mm (extended range)			NPN/PNP	2-meter cable	<b>E57-12GE08-D</b>	<b>E57-12GE08-D1</b>	
					4-pin micro DC connector	<b>E57-12GE08-DDB</b> ☺	<b>E57-12GE08-D1DB</b> ☺	
		<b>18 mm Diameter</b>						
20–250 Vac		5 mm	Shielded	—	2-meter cable	<b>E57-18GS05-A</b>	<b>E57-18GS05-A1</b>	
					3-pin micro AC connector	<b>E57-18GS05-AAB</b> ☺	<b>E57-18GS05-A1AB</b> ☺	
		8 mm	Unshielded	—	2-meter cable	<b>E57-18GU08-A</b>	<b>E57-18GU08-A1</b>	
					3-pin micro AC connector	<b>E57-18GU08-AAB</b> ☺	<b>E57-18GU08-A1AB</b> ☺	
		16 mm				3-pin micro AC connector	<b>E57-18GE16-AAB</b> ☺	<b>E57-18GE16-A1AB</b> ☺
10–30 Vdc		5 mm	Shielded	NPN/PNP	2-meter cable	<b>E57-18GS05-D</b>	<b>E57-18GS05-D1</b>	
					4-pin micro DC connector	<b>E57-18GS05-DDB</b> ☺	<b>E57-18GS05-D1DB</b> ☺	
		8 mm	Unshielded	NPN/PNP	2-meter cable	<b>E57-18GU08-D</b>	<b>E57-18GU08-D1</b>	
					4-pin micro DC connector	<b>E57-18GU08-DDB</b> ☺	<b>E57-18GU08-D1DB</b> ☺	
16 mm (extended range)				NPN/PNP	2-meter cable	<b>E57-18GE16-D</b>	<b>E57-18GE16-D1</b>	
	4-pin micro DC connector				<b>E57-18GE16-DDB</b> ☺	<b>E57-18GE16-D1DB</b> ☺		
	<b>30 mm Diameter</b>							
	20–250 Vac	10 mm	Shielded	—	2-meter cable	<b>E57-30GS10-A</b>	<b>E57-30GS10-A1</b>	
					3-pin micro AC connector	<b>E57-30GS10-AAB</b> ☺	<b>E57-30GS10-A1AB</b> ☺	
		15 mm	Unshielded	—	2-meter cable	<b>E57-30GU15-A</b>	<b>E57-30GU15-A1</b>	
					3-pin micro AC connector	<b>E57-30GU15-AAB</b> ☺	<b>E57-30GU15-A1AB</b> ☺	
		10–30 Vdc	10 mm	Shielded	NPN/PNP	2-meter cable	<b>E57-30GS10-D</b>	<b>E57-30GS10-D1</b>
						4-pin micro DC connector	<b>E57-30GS10-DDB</b> ☺	<b>E57-30GS10-D1DB</b> ☺
	15 mm		Unshielded	NPN/PNP	2-meter cable	<b>E57-30GU15-D</b>	<b>E57-30GU15-D1</b>	
					4-pin micro DC connector	<b>E57-30GU15-DDB</b> ☺	<b>E57-30GU15-D1DB</b> ☺	
	25 mm (extended range)			NPN/PNP	2-meter cable	<b>E57-30GE25-D</b>	<b>E57-30GE25-D1</b>	
					4-pin micro DC connector	<b>E57-30GE25-DDB</b> ☺	<b>E57-30GE25-D1DB</b> ☺	

**Note**

☺☺ See listing of compatible connector cables on [Page V8-T3-40](#).

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## Inductive Proximity Sensors

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


#### Compatible Connector Cables

##### Standard Cables <sup>①</sup>

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Micro-Style  
Straight Female



Voltage Style	Number of Pins	Gauge	Length	Pin Configuration/Wire Colors (Face View Female Shown)	PVC Jacket Catalog Number	PUR Jacket Catalog Number
<b>Micro-Style, Straight Female</b>						
AC	3-pin, 3-wire	22 AWG	6.0 ft (2m)	 1-Green 2-Red/Black 3-Red/White	CSAS3F3CY2202	CSAS3F3RY2202

#### Accessories

##### E57 Two-Wire Proximity Sensors

Description	Reference
Mounting brackets	See <b>Tab 8, section 8.2</b>
Replacement mounting nuts and other accessories	See <b>Tab 8, section 8.3</b>
Connector cables	See <b>Tab 10, section 10.1</b>

##### Note

<sup>①</sup> For a full selection of connector cables, see **Tab 10, section 10.1**.

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## Inductive Proximity Sensors

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

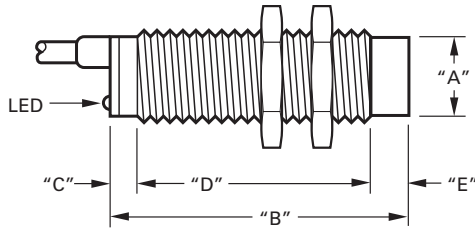
Approximate Dimensions in mm

#### Nickel-Brass Body

##### Cable Models

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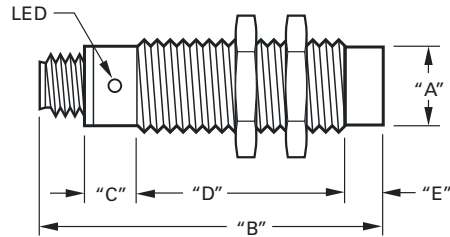
##### Two-Wire Sensors



Catalog Number	Operating Voltage	A	B	C	D	E
<b>E57-12GS02-A</b>	20–250 Vac	M12x1	65	15	50	—
<b>E57-12GU04-A</b>		M12x1	60	15	42	8
<b>E57-18GS05-A</b>		M18x1	80	20	60	—
<b>E57-18GU08-A</b>		M18x1	80	20	48	12
<b>E57-30GS10-A</b>		M30x1.5	80	20	60	—
<b>E57-30GU15-A</b>		M30x1.5	80	20	45	15
<b>E57-12GS02-D</b>	10–30 Vdc	M12x1	50	—	50	—
<b>E57-12GU04-D</b>		M12x1	50	—	42	8
<b>E57-12GE08-D</b>		M12x1	50	—	42	8
<b>E57-12GE08-D1</b>		M12x1	50	—	42	8
<b>E57-18GS05-D</b>		M18x1	55	5	50	—
<b>E57-18GU08-D</b>		M18x1	55	5	38	12
<b>E57-18GE16-D</b>		M18x1	55	5	38	12
<b>E57-18GE16-D1</b>		M18x1	55	5	38	12
<b>E57-30GS10-D</b>		M30x1.5	55	5	50	—
<b>E57-30GU15-D</b>		M30x1.5	55	5	35	15
<b>E57-30GE25-D</b>		M30x1.5	55	5	35	15
<b>E57-30GE25-D1</b>		M30x1.5	55	5	35	15

##### Connector Models

##### Two-Wire Sensors



Catalog Number <sup>①</sup>	Operating Voltage	A	B	C	D	E
<b>E57-12GS02-AAB</b>	20–250 Vac	M12x1	68	16	42	—
<b>E57-12GU04-AAB</b>		M12x1	68	16	34	8
<b>E57-18GS05-AAB</b>		M18x1	91	20	60	—
<b>E57-18GU08-AAB</b>		M18x1	91	20	48	12
<b>E57-18GE16-AAB</b>		M18x1	79.2	15	37	11.5
<b>E57-30GS10-AAB</b>		M30x1.5	80	20	60	—
<b>E57-30GU15-AAB</b>		M30x1.5	91	20	45	15
<b>E57-12GS02-DDB</b>	10–30 Vdc	M12x1	69	16	42	—
<b>E57-12GU04-DDB</b>		M12x1	68	16	34	8
<b>E57-12GE08-DDB</b>		M12x1	68	10	50	8
<b>E57-12GE08-D1DB</b>		M12x1	68	10	50	8
<b>E57-18GS05-DDB</b>		M18x1	76	15	61	—
<b>E57-18GU08-DDB</b>		M18x1	80	15	49	12
<b>E57-18GE16-DDB</b>		M18x1	79	15	52	12
<b>E57-30GS10-DDB</b>		M30x1.5	75	15	60	—
<b>E57-30GU15-DDB</b>		M30x1.5	79	15	45	15
<b>E57-30GE25-DDB</b>		M30x1.5	78	15	48	15

#### Note

① Normally closed models are dimensionally indicated to equivalent normally open models.