

E57 Performance Series and General-Purpose Series Three-wire DC inductive sensors



Durable, reliable and safe inductive sensor solutions



Eaton E57P Performance Series, E57PS Short Body Series and E57G General-Purpose Series inductive proximity sensors feature a rugged stainless steel body, shock-resistant front caps, impact-absorbing potting compound and unmatched noise immunity. The E57G was created with high volume OEMs in mind, optimized to include the functions necessary for basic, reliable sensing. The E57P and E57PS offer customers a wider operating voltage, temperature range, higher noise immunity and more robust environmental rating. The inclusion of the E57PS Short Body means that there are multiple configurations to meet the customer's needs.

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Features

- Stainless steel tube
- Short-circuit protection
- Unmatched noise immunity
- Manufactured to withstand harsh physical and environmental conditions
- Available in most popular connection types
- Shielded and unshielded versions available
- Permanently marked with laser etching

Benefits

Eaton quality, industry standard mounting, high performance, increased reliability, cost-effective, increased longevity, short lead times, and a variety of configurations to meet customer needs.

Operation

The E57P, E57PS and E57G use the reliable eddy current inductive method of sensing to detect metallic objects that come within range. The proven design makes the product adaptable and easy to set up with most PLCs.

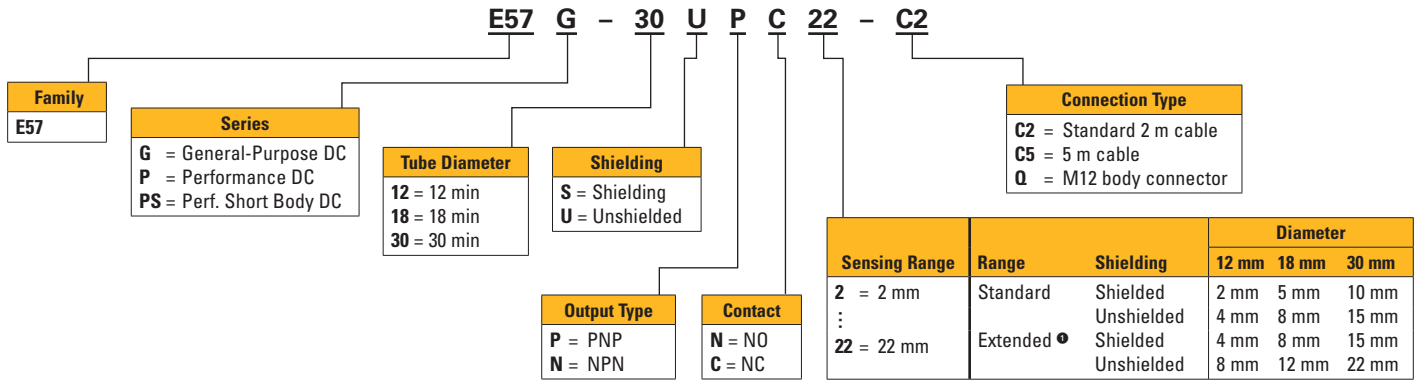
Standards and certifications



	E57G General Purpose	E57P Performance	E57PS Short Body
Voltage	10–30 Vdc	10–48 Vdc	10–48 Vdc
Output current	100 mA	300 mA	300 mA
Temperature range	–25 to +70 °C	–40 to +70 °C	–40 to +70 °C
Response time	Up to 2000 Hz	Up to 2000 Hz	Up to 2000 Hz
Extended range	Yes	Yes	No
Body material	Stainless steel	Stainless steel	Stainless steel
LED	360°	360°	360°
Environmental rating	IP67	IP69K	IP69K
Laser engraving	Yes	Yes	Yes
Noise immunity	Standard	High	High

Catalog Numbering System

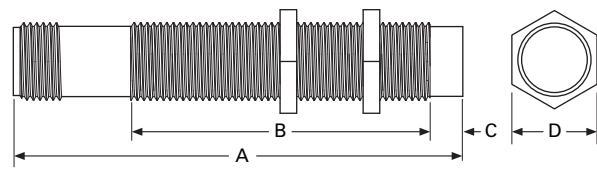
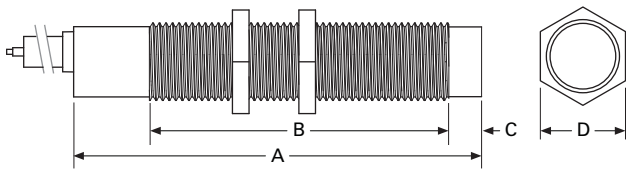
Sensing ranges included.



① Short body series is available in standard ranges only.

Dimensions

Approximate dimensions in mm.



E57P, E57G Cable Models

Dia.	Shielding	A	B	C	D	Thread Size
12 mm	Shielded	64	50	—	17	M12 x 1
	Unshielded	64	46	5	17	M12 x 1
18 mm	Shielded	66	50	—	24	M18 x 1
	Unshielded	66	44	7	24	M18 x 1
30 mm	Shielded	68	50	—	36	M30 x 1.5
	Unshielded	68	38	13	36	M30 x 1.5

E57P, E57G Micro Connector Models

Dia.	Shielding	A	B	C	D	Thread Size
12 mm	Shielded	69	50	—	17	M12 x 1
	Unshielded	69	46	5	17	M12 x 1
18 mm	Shielded	69	50	—	24	M18 x 1
	Unshielded	69	44	7	24	M18 x 1
30 mm	Shielded	71	50	—	36	M30 x 1.5
	Unshielded	71	38	13	36	M30 x 1.5

E57PS Cable Models

Dia.	Shielding	A	B	C	D	Thread Size
12 mm	Shielded	41	27	—	17	M12 x 1
	Unshielded	41	23	5	17	M12 x 1
18 mm	Shielded	45	30	—	24	M18 x 1
	Unshielded	45	23	7	24	M18 x 1
30 mm	Shielded	47	29	—	36	M30 x 1.5
	Unshielded	47	17	13	36	M30 x 1.5

E57PS Micro Connector Models

Dia.	Shielding	A	B	C	D	Thread Size
12 mm	Shielded	46	27	—	17	M12 x 1
	Unshielded	46	23	5	17	M12 x 1
18 mm	Shielded	48	30	—	24	M18 x 1
	Unshielded	48	23	7	24	M18 x 1
30 mm	Shielded	50	29	—	36	M30 x 1.5
	Unshielded	50	17	13	36	M30 x 1.5

Compatible Connector Cables

Standard Cables

Voltage Style	Number of Pins	Gauge	Length	Pin Configuration/ Wire Color ②	PVC Jacket Catalog Number	PUR Jacket Catalog Number
Micro-Style, Straight Female						
DC	4-pin, 3-wire	22 AWG	6.0 ft (2 m)		CSDS4A3CY2202	CSDS4A3RY2202
			16.4 ft (5 m)			
Micro-Style, Right Angle Female						
DC	4-pin, 3-wire	22 AWG	6.0 ft (2 m)		CSDR4A3CY2202	CSDR4A3RY2202
			16.4 ft (5 m)			
			32.8 ft (10 m)			

Accessories

E57 Proximity Sensors

Description	Reference
Mounting brackets	③
Replacement mounting nuts and other accessories	④
Connector cables	⑤

② Face view female shown.

③ Refer to CA08100010E, Volume 8, Sensing Solutions, Tab 8, section 8.2.

④ Refer to CA08100010E, Volume 8, Sensing Solutions, Tab 8, section 8.3.

⑤ Refer to CA08100010E, Volume 8, Sensing Solutions, Tab 10, section 10.1.

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