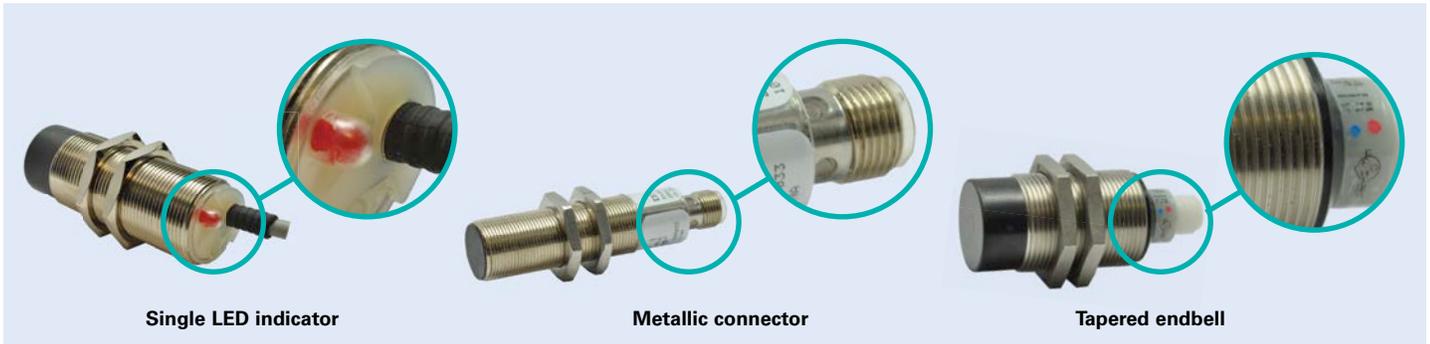


Eaton's upgraded inductive proximity sensors

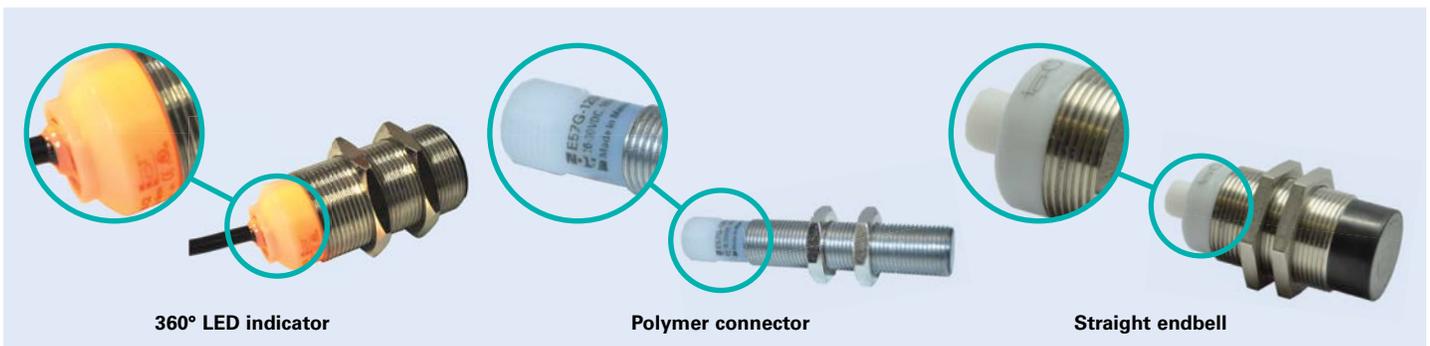
Eaton is proud to introduce a new line of three-wire, DC operate inductive proximity sensors. The E57G, E57P and E57PS series have replaced the Global, Premium+ and Premium+ Short Body series. This new line of sensors provides increased noise immunity, stainless steel bodies, 360° LED indicator and a laser-engraved label.

The connectors have been changed from metal connectors to polymer connectors, and the endbells have been changed from tapered to straight. If you are concerned that these replacements will no longer function for your application, specifications are provided on the back page of this document, or call 1-800-426-9184 for application support.

E57 Global, Premium+ and Premium+ Short Body (previous versions)



E57G, E57P and E57PS (new versions)



Powering Business Worldwide

Rated operating distance (S_n): E57G, E57P and E57PS ①

Diameter	Standard range		Extended range	
	Shielded	Unshielded	Shielded	Unshielded
12 mm	2 mm	4 mm	4 mm	8 mm
18 mm	5 mm	8 mm	8 mm	12 mm
30 mm	10 mm	15 mm	15 mm	22 mm

① E57PS series only available in standard range.

Frequency of operating cycles (f): E57G, E57P and E57PS

Diameter	Standard range		Extended range	
	Shielded	Unshielded	Shielded	Unshielded
12 mm	2000 Hz	2000 Hz	1200 Hz	500 Hz
18 mm	1200 Hz	1200 Hz	300 Hz	300 Hz
30 mm	600 Hz	500 Hz	400 Hz	200 Hz

Specifications for the new E57P, E57G and E57PS Series

	E57P and E57PS	E57G
Rated operational voltage (U _o)	10–48 Vdc	10–30 Vdc
Rated operational current (I _o)	300 mA	100 mA
Voltage drop (U _d)	<2.5 V	<2.5 V
Offstate current (I _r)	<100 μA	<100 μA
No load supply current (I _o)	<10 mA	<10 mA
Short-circuit protection	Yes (auto reset)	Yes (auto reset)
Differential travel (H)	2 to 20% of S _r	2 to 20% of S _r
Assured operating distance (S _a)	Between 0 and 81% of S _n	Between 0 and 81% of S _n
Usable operating distance (S _u)	±10% of S _r	±10% of S _r
Repeat accuracy (R)	1% shielded, 3% unshielded	1% shielded, 3% unshielded
Time delay before availability (t _d)	<200 ms	<200 ms
Reverse polarity protection	Yes	Yes
Output indicator LED	360° amber LED	360° amber LED
Operating temperature range	–40 to 70 °C	–25 to 70 °C
EMC–ESD	IEC 61000-4-2, ±4 kV contact	IEC 61000-4-2, ±4 kV contact
EMC–RFI	IEC 61000-4-3, 20 V/m	IEC 61000-4-3, 20 V/m
EMC–EFT	IEC 61000-4-4, ±2 kV	IEC 61000-4-4, ±2 kV
EMC–conducted RFI	IEC 61000-4-6, 3 V	IEC 61000-4-6, 3 V
EMC–emission	CISPR 11, group 1, class A	CISPR 11, group 1, class A
Ingress protection	IP67, IP69K; NEMA® 4, 4X, 6, 6P	IP67; NEMA 4, 4X, 6, 6P
Shock	IEC 60068-2-27 half-sine, 30 g _n , 11 ms	IEC 60068-2-27 half-sine, 30 g _n , 11 ms
Vibration	IEC 60068-2-6 10 to 55 Hz, 1 mm	IEC 60068-2-6 10 to 55 Hz, 1 mm
Housing materials–front face	Ryton PPS	Ryton PPS
Housing materials–tube	Stainless steel	Stainless steel
Housing materials–endbell	Polycarbonate	Polycarbonate
Housing materials–nuts	Stainless steel	Plated brass
Cable	AWM style 20387 (PVC)	AWM style 20387 (PVC)
Correction factors (S _n *CF)	Mild steel = 1, S.S. = 0.7, brass = 0.5, aluminum = 0.4, copper = 0.3	Mild steel = 1, S.S. = 0.7, brass = 0.5, aluminum = 0.4, copper = 0.3

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