™

INDUCTIVE PROXIMITY SENSORS
HIGH PERFORMANCE E57 PREMIUM+ SERIES
12, 18 AND 30 mm DIAMETER

Starts at
£41⁵⁰

c(UL)us

- **2-Wire, 3-Wire, DC, and AC/DC Multiple Range Sensor Models**
- **Manufactured to Take Physical and Environmental Abuse**
- **Designed with Stainless Steel Barrel and New Potting Compound for Robust, High Temperature, High Pressure Washdown, as Well as Intense Shock and Vibration Applications**
- **Unmatched High Noise Immunity Eliminates Problems Associated with Electrical Noise (All Models >20V/Metre)**
- **360° Output Status Indicator is Visible from Any Angle and in Any Light Condition**
- **Resettable Short Circuit Protection and Reverse Polarity in Select Models**
- **Wide Temperature Range -25 to 70°C on Cable, Micro-Style Connections**

The Cutler-Hammer® Premium+ Series inductive proximity sensors have improved sensing performance, product durability and selection. This improved line of sensors carries the Premium+ Series name because we have upgraded the design to a rugged stainless steel body, shock resistant front caps and impact absorbing potting compound. Also, the Premium+ Series line now includes a choice of AC/DC and DC-only, 12, 18 and 30 mm sensors with unmatched noise immunity of greater than 20V/metre.
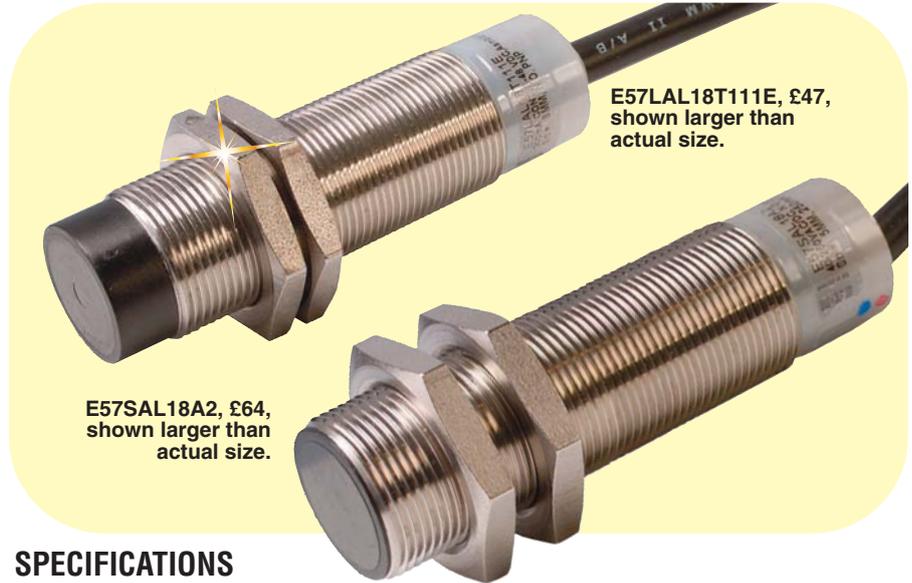
E57LAL18T111E, £47, shown larger than actual size.

E57SAL18A2, £64, shown larger than actual size.

SPECIFICATIONS
E57 PREMIUM+ SERIES

	2-WIRE SENSORS AC/DC	3-WIRE DC SENSORS
Operating Voltage	20 to 240 Vac/Vdc	6 to 48 Vdc
Maximum Load Current	250 mA @ 25°C 200 mA @ 70°C	500 mA @ 6 to 30 Vdc
Switching Frequency	60 Hz	12 mm: 1000 Hz 18 mm: 800 Hz 30 mm: 500 Hz
Leakage Current	2.0 mA	100 µA
Voltage Drop	12V @ <10 mA 4V @ >25 mA	2.5V
Holding Current	5 mA min	—
Burden Current	—	10 mA
Protection	Resettable short circuit; overload protection	Auto reset
Switching Hysteresis	<15% rated sensing distance	
Repeat Accuracy	Shielded Models: <1% sensing distance; Unshielded and extended range: <3%	
Time Delay Before Availability	<200 mS	

COMMON SPECIFICATIONS		
Output Indicator LED	360° viewable LED	
Operating Temperature	-25 to 70°C	
Enclosure Ratings	IP67, NEMA 4, 4X, 6, 6P, 12 and 13	
Shock	30g, 11 mS per IEC 68-2-76	
Vibration	10 to 55 Hz, 1 mm amplitude	
Housing Material	Stainless steel; Polcarbonate end bells; Ryton® front ends	

NEW™

To Order *(Specify Model Number)*

INDUCTIVE PROXIMITY SENSORS

TYPE	MODEL NO.	PRICE	OPERATING VOLTAGE	SENSING RANGE (SN) mm	SHIELDING	CONNECTION TYPE [1]
2-WIRE SENSORS						
18 mm Dia End Sensing NO Output	E57SAL18A2	£64.00	24 to 240 Vac 50/60 Hz [2] 20 to 240 Vdc	5	Shielded	2 m cable
	E57SAL18A2SA	72.00				3-pin micro AC connector
	E57SAL18A2E	64.00		8	Unshielded	2 m cable
	E57SAL18A2EA	72.00				3-pin micro AC connector
30 mm Dia End Sensing NO Output	E57SAL30A2	65.00	24 to 240 Vac 50/60 Hz [2] 20 to 240 Vdc	10	Shielded	2 m cable
	E57SAL30A2SA	70.00				3-pin micro AC connector
	E57SAL30A2E	66.00		15	Unshielded	2 m cable
	E57SAL30A2EA	70.00				3-pin micro AC connector
3-WIRE SENSORS						
12 mm Dia End Sensing NO Output	E57LAL12T110	£41.50	6 to 48 Vdc	2	Shielded NPN	2 m cable
	E57LAL12T110SD	52.00				4-pin micro DC connector
	E57LAL12T111	41.50			Shielded PNP	2 m cable
	E57LAL12T111SD	52.00				4-pin micro DC connector
	E57LAL12T110E	41.50		4	Unshielded NPN	2 m cable
	E57LAL12T110ED	52.00				4-pin micro DC connector
	E57LAL12T111E	41.50			Unshielded PNP	2 m cable
	E57LAL12T111ED	52.00				4-pin micro DC connector
18 mm Dia End Sensing NO Output	E57LAL18T110	47.00	6 to 48 Vdc	5	Shielded NPN	2 m cable
	E57LAL18T110SD	59.00				4-pin micro DC connector
	E57LAL18T111	47.00			Shielded PNP	2 m cable
	E57LAL18T111SD	59.00				4-pin micro DC connector
	E57LAL18T110E	47.00		8	Unshielded NPN	2 m cable
	E57LAL18T110ED	59.00				4-pin micro DC connector
	E57LAL18T111E	47.00			Unshielded PNP	2 m cable59.00
	E57LAL18T111ED	59.00				4-pin micro DC connector
30 mm Dia End Sensing NO Output	E57LAL30T110	52.00	6 to 48 Vdc	10	Shielded NPN	2 m cable
	E57LAL30T110SD	60.00				4-pin micro DC connector
	E57LAL30T111	52.00			Shielded PNP	2 m cable
	E57LAL30T111SD	60.00				4-pin micro DC connector
	E57LAL30T110E	52.00		15	Unshielded NPN	2 m cable
	E57LAL30T110ED	60.00				4-pin micro DC connector
	E57LAL30T111E	52.00			Unshielded PNP	2 m cable
	E57LAL30T111ED	60.00				4-pin micro DC connector

[1] For cable lengths longer than 2 m, add the number of the desired length in metres to the end of the listed model number (for model numbers ending with a number, add an *"S"* and then the length). Example for a 5 m cable: *E57LAL12A2* becomes *E57LAL12A2S5.*

[2] Avoid wiring these AC/DC models in series as the sensors may not perform reliably. Contact OMEGA's Applications Engineering with questions.

Ordering Examples: E57SAL18A2, *18 mm Dia end sensing proximity switch with NO output and 2 m cable,* **£64.**
E57LAL18T110SD, *18 mm diameter, end sensing proximity switch with NO output and 4-pin micro DC connector,* **£59.**
Optional Cable: CSDS4A4CY2202, *4-pin micro AC cable, 2 m long,* **£10.75.**

Accessories

| MODEL	PRICE	DESCRIPTION
CSAS3F3CY2202	£11.50	AC cable, 3-pin, 3-wire, 22 AWG, 2 m PVC jacket
CSDS4A4CY2202	10.75	DC cable, 4-pin, 4-wire, 22 AWG, 2 m PVC jacket
E57KM12	4.00	Bracket for 12 mm tubular sensors
E57KM18	4.00	Bracket for 18 mm tubular sensors
E58KAM18B	8.00	Bracket, adjustable ball swivel for 18 mm tubular sensors
E57KM30	4.70	Bracket for 30 mm tubular sensors

Recommended Mounting Clearances

For unshielded standard range sensors, clearance must be provided around the sensor when mounting for reliable performance. ("Sn" is the sensing range of the sensor, "d" is the sensor diameter.)

TYPE	SHIELDING	a	b
Standard Range	Shielded	0	0
	Unshielded	0.5 d	0.5 Sn

Cable Models

SENSING FACE

THREAD TYPE E
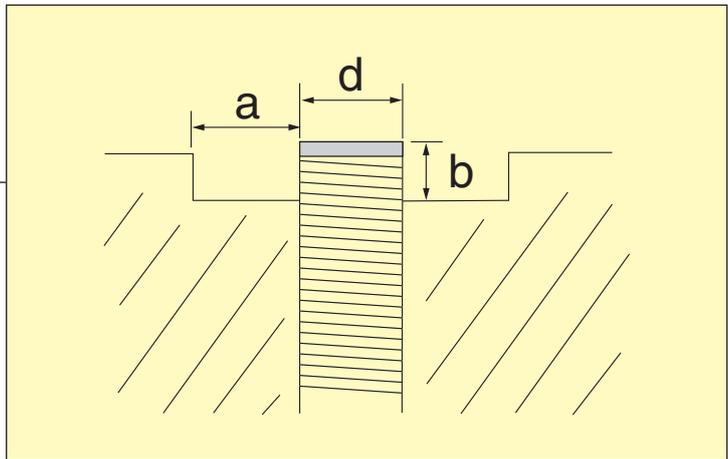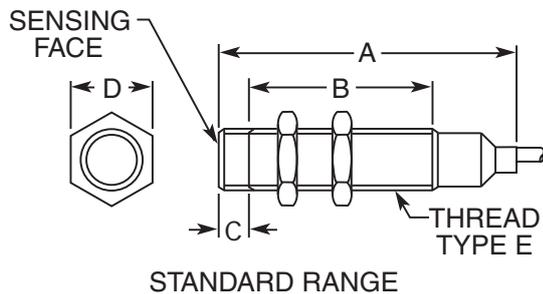
STANDARD RANGE

Connector Models

SENSING FACE

THREAD TYPE E
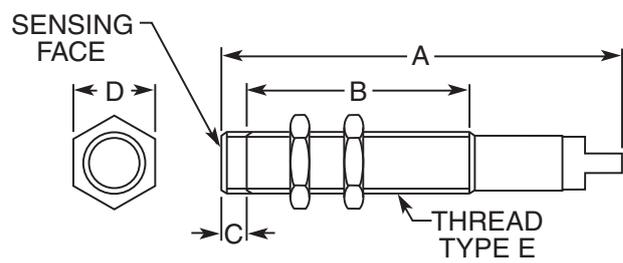
STANDARD RANGE

SIZE	SHIELDING	DIMENSIONS: mm				
		OVERALL LENGTH A	THREAD LENGTH B	C	NUT WIDTH D	THREAD SIZE E
2-WIRE AC/DC—CABLE MODELS						
18 mm	Shielded	64.5	50.9	—	24	M18 x 1
	Unshielded	64.5	44.4	7.0	24	M18 x 1
30 mm	Shielded	69.3	50.27	—	36	M30 x 1.5
	Unshielded	69.3	37.85	13.26	36	M30 x 1.5
2-WIRE AC/DC—CONNECTOR MODELS						
18 mm	Shielded	69.06	50.9	—	24	M18 x 1
	Unshielded	69.06	44.4	7.0	24	M18 x 1
30 mm	Shielded	73.8	50.27	—	36	M30 x 1.5
	Unshielded	73.8	37.85	13.26	36	M30 x 1.5
3-WIRE DC SENSORS—CABLE MODELS						
12 mm	Shielded	62.4	50.27	—	17	M12 x 1
	Unshielded	62.4	45.77	5	17	M12 x 1
18 mm	Shielded	64.5	50.9	—	24	M18 x 1
	Unshielded	64.5	44.4	7.0	24	M18 x 1
30 mm	Shielded	69.3	50.27	—	36	M30 x 1.5
	Unshielded	69.3	37.85	13.26	36	M30 x 1.5
3-WIRE DC SENSORS—MICRO-CONNECTOR MODELS						
12 mm	Shielded	68.7	50.27	—	17	M12 x 1
	Unshielded	68.7	45.77	5	17	M12 x 1
18 mm	Shielded	69.3	50.9	—	24	M18 x 1
	Unshielded	69.3	44.4	7.0	24	M18 x 1
30 mm	Shielded	74.1	50.27	—	36	M30 x 1.5
	Unshielded	74.1	37.85	13.26	36	M30 x 1.5

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