

Tubular Inductive Proximity Sensors with Nonmetallic Housings

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Cutler-Hammer® E55 Tubular Inductive Proximity Sensors by Eaton's electrical business are constructed of corrosion resistant PBT plastic. They are ideally suited for wash down applications such as those found in food processing plants. They are available in 12 mm, 18 mm and 30 mm diameters, shielded or unshielded. Shielded units can be embedded in metallic surfaces.



Unless otherwise noted, the products contained in this document are not designed or intended for use in human safety applications.

Tubular Sensors with Nonmetallic Housings Offer High Corrosion Resistance

Three Housing Diameters

12 mm



18 mm

Output
Status
LEDCorrosion
Resistant
PBT Housing

30 mm






Product Features

- Models available that operate on 2-wire AC or 3-wire DC power
- Threaded tubular housings in three diameters allow easy integration into new and existing applications
- Nonmetallic construction offers excellent resistance to corrosion
- Output indicator LED is standard on all models




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**.

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Model Selection — Tubular Sensors with Nonmetallic Housings

	Operating Voltage	Sensing Range (Sn)	Shielding	Connection Type	Catalog Number	
					N.O. Output	N.C. Output
2-Wire Sensors						
12 mm Diameter 	20 – 250V AC 50/60 Hz	2 mm	Shielded	2-meter Cable	E55CAL12A2	E55CBL12A2
		4 mm	Unshielded	2-meter Cable	E55CAL12A2E	E55CBL12A2E
18 mm Diameter 	20 – 250V AC 50/60 Hz	5 mm	Shielded	2-meter Cable	E55CAL18A2	E55CBL18A2
		8 mm	Unshielded	2-meter Cable	E55CAL18A2E	E55CBL18A2E
30 mm Diameter 	20 – 250V AC 50/60 Hz	10 mm	Shielded	2-meter Cable	E55CAL30A2	E55CBL30A2
		15 mm	Unshielded	2-meter Cable	E55CAL30A2E	E55CBL30A2E

3-Wire Sensors

12 mm Diameter 	10 – 30V DC	2 mm	Shielded (NPN)	2-meter Cable	E55CAL12T110	E55CBL12T110
			Shielded (PNP)	2-meter Cable	E55CAL12T111	E55CBL12T111
		4 mm	Unshielded (NPN)	2-meter Cable	E55CAL12T110E	E55CBL12T110E
			Unshielded (PNP)	2-meter Cable	E55CAL12T111E	E55CBL12T111E
18 mm Diameter 	10 – 30V DC	5 mm	Shielded (NPN)	2-meter Cable	E55CAL18T110	E55CBL18T110
			Shielded (PNP)	2-meter Cable	E55CAL18T111	E55CBL18T111
		8 mm	Unshielded (NPN)	2-meter Cable	E55CAL18T110E	E55CBL18T110E
			Unshielded (PNP)	2-meter Cable	E55CAL18T111E	E55CBL18T111E
30 mm Diameter 	10 – 30V DC	10 mm	Shielded (NPN)	2-meter Cable	E55CAL30T110	E55CBL30T110
			Shielded (PNP)	2-meter Cable	E55CAL30T111	E55CBL30T111
		15 mm	Unshielded (NPN)	2-meter Cable	E55CAL30T110E	E55CBL30T110E
			Unshielded (PNP)	2-meter Cable	E55CAL30T111E	E55CBL30T111E

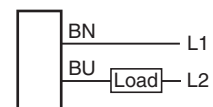
① For a selection of mounting brackets and other accessories for use with these sensors, see **PG.05.03.T.E.**

■ Stocked product, typical order quantities guaranteed in stock.

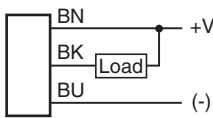
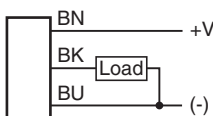
Wiring Diagrams

	Output	Cable Models
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2-Wire Sensors

20 – 250V AC 50/60 Hz	All	
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3-Wire Sensors

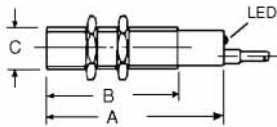
10 – 30V DC	NPN	
	PNP	

Specifications

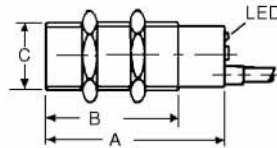
	2-Wire AC Models	3-Wire DC Models
Operating Voltage	20 – 250V AC, 50/60 Hz	10 – 30V DC
Maximum Load Current	150 mA	200 mA
Switching Frequency	25 Hz	12 mm: 2000 Hz (Shielded); 1000 Hz (Unshielded) 18 mm: 1000 Hz (Shielded); 500 Hz (Unshielded) 30 mm: 300 Hz (Shielded); 150 Hz (Unshielded)
Protection	—	Short circuit and reverse polarity
Temperature Range	-13° to 158°F (-25° to 70°C)	
Enclosure Material	Polybutadiene Terephthalate (PBT)	
Enclosure Rating	NEMA 3, 3S, 4, 4X, 13 (IP66)	
Indicator LED	Lights when output is ON	

Approximate Dimensions in Inches (mm)

12 and 18 mm Sizes



30 mm Sizes



Size	Dimensions in Inches (mm)		
	A	B	C Thread Size
12 mm	2.17 (55)	1.77 (45)	M12 x 1
18 mm	2.17 (55)	1.77 (45)	M18 x 1
30 mm	3.15 (80)	2.36 (60)	M30 x 1.5