

Smooth Body Capacitive Proximity Sensors

34 mm Diameter Capacitive Sensors Offer Long-Range Detection of Liquid and Other Targets

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Cutler-Hammer® Type E53 Capacitive Proximity Sensors from Eaton's electrical business are self-contained devices designed to detect both metallic and nonmetallic targets. They are ideally suited for liquid level control and for sensing powdered or granulated material. For best operation, they should be used in an environment having relatively constant temperature and humidity.

34 mm Diameter Size for Longer Sensing Range



Mounting Bracket Included

Cable Versions



LED Output Indicator on All Models

Connector Versions



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

Product Features

- Detect liquids, powders and other materials that are difficult or impossible with other sensor types
- Plastic body is corrosion resistant
- Sensitivity adjustment

Model Selection — E53 Smooth Body Capacitive Proximity Sensors





	Operating Voltage	Sensing Range (Sn)	Shielding	Connection Type	Catalog Number	
					NO Output	NC Output
2-Wire Sensors						
34 mm Diameter Includes mounting bracket	20 – 250V AC	1.38 inch (35 mm)	Unshielded	2-meter Cable	E53KAL34A2E	E53KBL34A2E
				3-pin Micro AC Connector	E53KAL34A2EA ☼	E53KBL34A2EA ☼
3-Wire Sensors						
34 mm Diameter Includes mounting bracket	10 – 30V DC	0.98 inch (25 mm)	Shielded (NPN)	2-meter Cable	E53KAL34T110	E53KBL34T110
				4-pin Micro DC Connector	E53KAL34T110SD ☼	E53KBL34T110SD ☼
			Shielded (PNP)	2-meter Cable	E53KAL34T111	E53KBL34T111
				4-pin Micro DC Connector	E53KAL34T111SD ☼	E53KBL34T111SD ☼
			Unshielded (NPN)	2-meter Cable	E53KAL34T110E	E53KBL34T110E
				4-pin Micro DC Connector	E53KAL34T110ED ☼	E53KBL34T110ED ☼
Unshielded (PNP)	2-meter Cable	E53KAL34T111E	E53KBL34T111E			
4-pin Micro DC Connector	E53KAL34T111ED ☼	E53KBL34T111ED ☼				

☼☼ See listing of compatible connector cables on **Page 2**.
 ☼ Stocked product, typical order quantities guaranteed in stock.


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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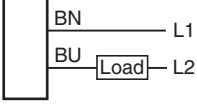
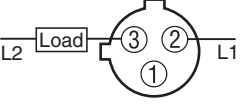
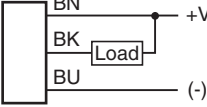
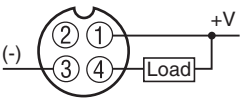
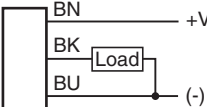
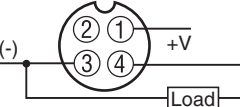
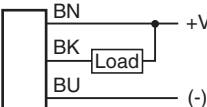
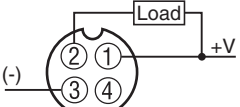
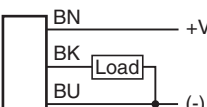
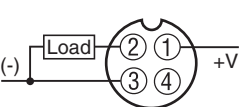
Model Selection — Compatible Connector Cables ①

	Voltage Style	Number of Pins	Gauge	Length	Catalog Number	Pin Configuration/Wire Colors (Face View Female Shown)
Standard Cables — Micro Style						
 Current Rating @ 600V 3-pin: 13A 4-pin: 10A	AC	3-pin 4-wire	22 AWG	6 feet (2m)	CSAS3F3CY2202	 1-Green 2-Red/Black 3-Red/White
	DC	4-pin 3-wire	22 AWG	6 feet (2m)	CSDS4A3CY2202	 1-Brown 2-No Wire 3-Blue 4-Black
		4-pin 4-wire	22 AWG	6 feet (2m)	CSDS4A4CY2202	 1-Brown 2-White 3-Blue 4-Black

① For a full selection of connector cables, see **PG.05.05.T.E.**

 Stocked product, typical order quantities guaranteed in stock.

Wiring Diagrams (Pin numbers are for reference, rely on pin location when wiring)

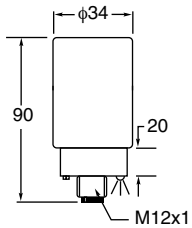
Operating Voltage	Output	Cable Models	Micro Connector Models
2-Wire Sensors			
20 – 250V AC	NO & NC		
3-Wire Sensors			
10 – 30V DC	NO (NPN)		
	NO (PNP)		
	NC (NPN)		
	NC (PNP)		

Specifications

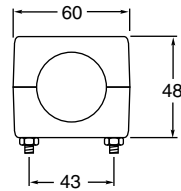
	AC Models	DC Models
Residual Current	2.5 mA maximum	—
Maximum Load Current	300 mA	300 mA
Switching Rate	15 operations per second	250 operations per second
Circuit Protection	—	Short circuit and reverse polarity
Output Indicator LED	Lights when output is ON	
Ambient Temperature Range	-13° to 158°F (-25° to 70°C)	
Enclosure Ratings	NEMA 1, 2, 3, 3S, 4, 12, 13 (IEC IP65)	
Sensitivity Adjustment	Included	

Approximate Dimensions in mm

34 mm Diameter Smooth Body Sensor



Mounting Bracket (Included with Sensor)



34 mm Cable

