



**Description**

The Rockwell Automation 45LFM series label sensor is an innovative electronic sensor used to sense and/or count labels. A signal is generated as the edge of the label passes through the sensor. It can be configured to sense the leading or trailing edge.

**Features**

- Consistently senses the presence of most labels on a web
  - Clear labels on clear backing
  - Clear labels on opaque backing
  - Metallic labels on clear backing
  - Opaque labels on clear backing
  - Metallic labels on opaque backing
  - Opaque labels on opaque backing
- Count 50,000 labels per minute with registration error less than 0.01 inch
- Heavy-duty metal housing
- Ideal for label counting and label registering applications

**General Specifications**

<b>Supply Voltage &amp; Current</b>	11 to 30V DC @ 50 mA max
<b>Power-Up or Reset Delay</b>	10 microseconds
<b>Leakage Current</b>	5µA
<b>Output Configuration</b>	Complimentary: NPN and PNP
<b>Output Rating</b>	150mA max
<b>Short Circuit Protection</b>	Yes
<b>Reverse Polarity Protection</b>	Yes
<b>Output Invert Control</b>	Yes
<b>Registration Accuracy</b>	0.025mm (0.01in)
<b>Response Time</b>	10microseconds
<b>Maximum Switching Speed</b>	10KHz
<b>Minimum Gap or Label Size</b>	0.76mm (0.03in)
<b>Indicators</b>	Edge, zero
<b>Construction</b>	Anodized aluminum
<b>Environmental Rating</b>	IP54
<b>Connections</b>	5-pin micro QD
<b>Operating Conditions</b>	4°C to 50°C (40°F to 120°F)
<b>Approvals</b>	CE marked for all applicable directives

**General Information**

Typical Wiring Diagrams . . . . . page 2  
 Dimensions . . . . . page 2

**Accessories**

Description	Catalog Number
4-Pin Pico Cordset	<b>889P-F4AB-2</b>
Mounting Bracket	<b>60-2677</b>

**Product Selection**

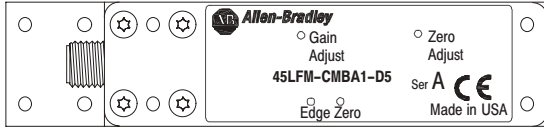
Operating Voltage	Labels Sensed	Output Type	Response Time	Connection Type	Catalog Number
11-30 DC	Opaque Clear	NPN or PNP	10µs	5-pin DC Micro	<b>45LFM-CMBA1-D5</b>
	Opaque Clear Metallic				<b>45LFM-CMBA2-D5</b>

# 45LFM

## Capacitive Label Sensor

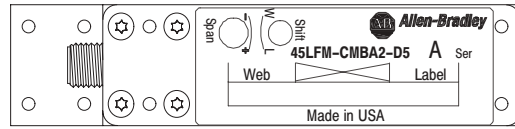
### User Interface—45LFM-CMBA1-D5

Label	Function
Gain	Sensitivity Adjustment
Zero	Gap Adjustment



### User Interface—45LFM-CMBA2-D5

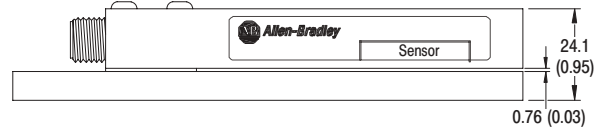
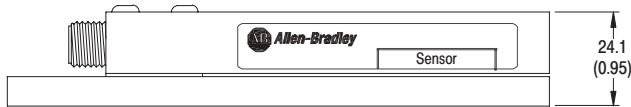
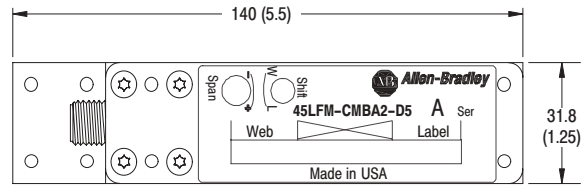
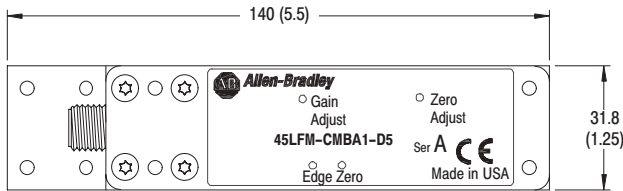
Label	Function
Shift	Adjusts position of illuminated LED on display
Span	Sensitivity Adjustment



## Wiring

Designation	Lead Color (Cordset)	5-Pin Micro QD Pin Assignment
Termination		
V+	Brown	1
0V	Blue	2
PNP Output/150mA maximum	Black	3
NPN Output/+30V DC/150mA maximum	White	4
Output Polarity/Ground or +Vin	Grey	5

## Dimensions—mm (inches)



## Accessories

Description	Catalog Number
2m (6.5ft) pico QD Cordset	889D-F5AC-2