



### Description

Bulletin 871D WorldClamp™ proximity sensors are specifically designed for use in power clamp and gripper applications. These devices incorporate two sensors into one unit, reducing the number of sensors and connection systems required for applications. Each sensor has two sensing coils (chicklets) that are used to detect whether the clamp/gripper is in the open or closed position.

The 871D WorldClamp has a compatible mounting configuration for the cartridges used by the major clamp manufacturers. These models are weld-field immune and have full electrical protections including short circuit, overload, false pulse, reverse polarity (DC models), and transient noise protection. All units meet IEC IP67 enclosure standards and are CE marked for all applicable directives.

Bulletin 871D WorldClamp™ proximity sensors are available in both 4-wire DC and 5-wire AC/DC micro quick-disconnect styles. Each sensor type is available in 100mm, 165mm, and 200mm lead lengths with either the large or small chicklet size.

### Features

- Superior LED visibility
- Weld-field immune
- Shielded construction
- Short circuit protection
- Overload protection
- Transient noise protection
- False pulse protection
- Reverse polarity protection (DC models)
- UL listed, c-UL certified, and CE marked for all applicable directives

### Styles

- DC 4-wire . . . . . page 2–166
- AC/DC 5-wire . . . . . page 2–168

### Accessories

- Quick-Disconnect Cables . . . . . page 7–1

### General Information

- Torque Chart . . . . . page 2–201
- Metric/English Conversion Chart . . . . . page 10–9

AB Parts



871D DC  
100, 165, 200mm



**Specifications**

<b>Load Current</b>	150mA max
<b>Leakage Current</b>	< 10µA
<b>Operating Voltage</b>	10–30V DC
<b>Voltage Drop</b>	< 2.5V
<b>Repeatability</b>	< 2%
<b>Hysteresis</b>	5% typical
<b>False Pulse Protection</b>	Incorporated
<b>Transient Noise Protection</b>	Incorporated
<b>Short Circuit Protection</b>	Incorporated
<b>Overload Protection</b>	Incorporated
<b>Weld Field Immunity</b>	1600 Gauss
<b>Approvals</b>	UL listed, c-UL certified, and CE marked for all applicable directives
<b>Enclosure</b>	IP67
<b>Connections</b>	4-pin micro quick-disconnect
<b>LED</b>	Green: power; orange: S1 output; red: S2 output
<b>Operating Temperature</b>	-25°C to +70°C (-13°F to +158°F)
<b>Shock</b>	30g, 11ms
<b>Vibration</b>	55Hz, 1mm amplitude, 3 planes

**Features**

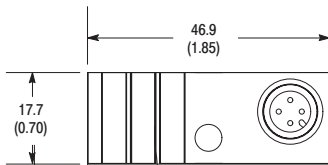
- 2 normally open outputs
- Superior LED visibility
- 10–30V DC
- Weld field immune
- Short circuit, overload, false pulse, reverse polarity, and transient noise protection
- 100, 165, and 200mm lead length for chicklets
- Small or large chicklet sizes
- Impact resistant housing
- 4-pin micro quick-disconnect
- UL listed, c-UL certified, and CE marked for all applicable directives

**Product Selection**

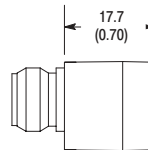
Nominal Sensing Distance mm (in)	Shielded	Output Configuration	Switching Frequency (Hz)	Lead Length mm (inches)	Chicklet Size	Catalog Number
2 (0.08)	Y	2 N.O. PNP Outputs	15	100 (3.94)	Large	871D-MW2GP100A-D4
					Small	871D-MW2GP100B-D4
				165 (6.50)	Large	871D-MW2GP165A-D4
					Small	871D-MW2GP165B-D4
				200 (7.88)	Large	871D-MW2GP200A-D4
					Small	871D-MW2GP200B-D4
Recommended Standard QD Cordset (-2 = 2m (6.5ft))						889D-F4AC-2

**Dimensions—mm (inches)**

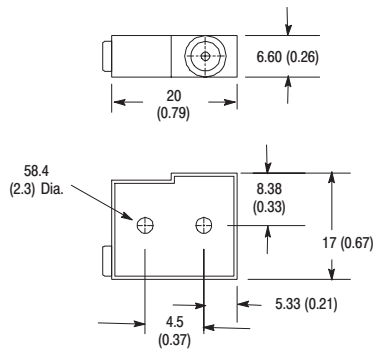
**Front View**



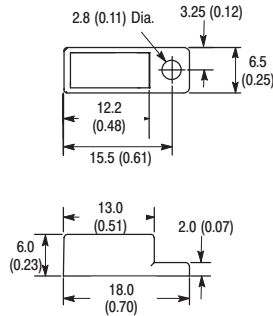
**Side View**



**Large Chicklet**

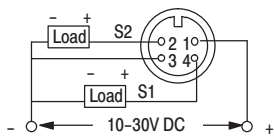


**Small Chicklet**



**Wiring Diagram**

**Normally Open Output  
PNP (Sourcing)**



AB Parts



871D AC/DC  
100, 165, 200mm



**Specifications**

<b>Load Current</b>	100mA max
<b>Inrush Current (1 cycle)</b>	≤2A (1 cycle)
<b>Leakage Current</b>	< 1.7mA
<b>Operating Voltage</b>	20–150V AC/DC
<b>Voltage Drop</b>	< 10V
<b>Repeatability</b>	< 2%
<b>Hysteresis</b>	5% typical
<b>False Pulse Protection</b>	Incorporated
<b>Transient Noise Protection</b>	Incorporated
<b>Short Circuit Protection</b>	Incorporated
<b>Overload Protection</b>	Incorporated
<b>Weld Field Immunity</b>	1600 Gauss
<b>Approvals</b>	UL listed, c-UL certified, and CE marked for all applicable directives
<b>Enclosure</b>	IP67
<b>Connections</b>	5-pin AC micro quick-disconnect
<b>LED</b>	2 green: power S1 and S2; orange: S1 output; red: S2 output
<b>Operating Temperature</b>	-25°C to +70°C (-13°F to +158°F)
<b>Shock</b>	30g, 11ms
<b>Vibration</b>	55Hz, 1mm amplitude, 3 planes

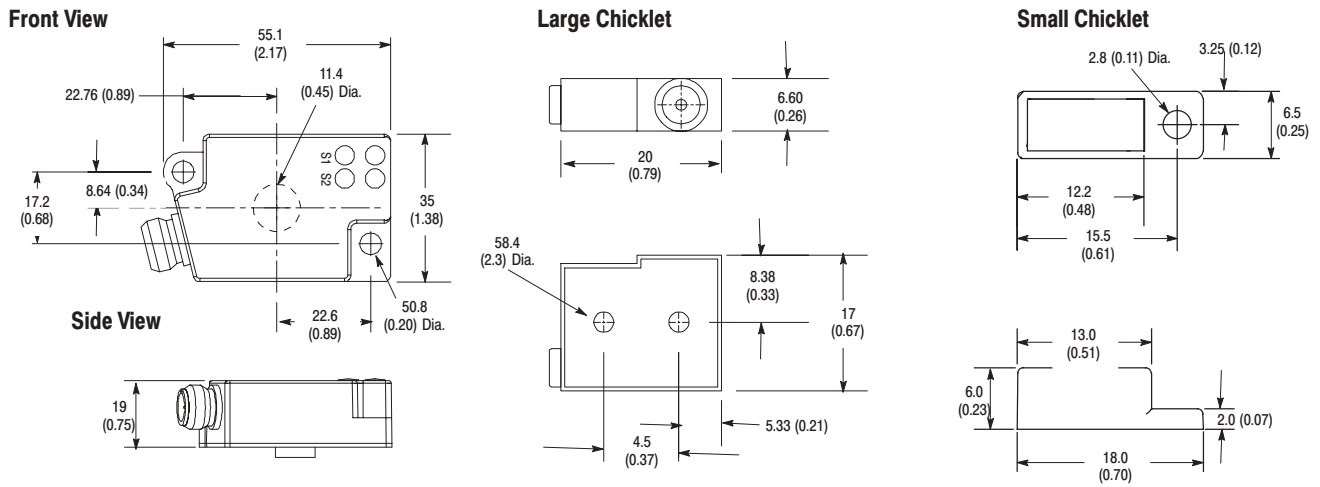
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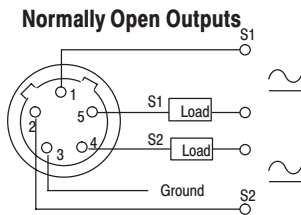
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				165 (6.50)	Large	871D-JW2G165A-R5
					Small	871D-JW2G165B-R5
				200 (7.88)	Large	871D-JW2G200A-R5
					Small	871D-JW2G200B-R5
Recommended Standard QD Cordset (-2 = 2m (6.5ft))						889R-F5AEA-2

**Dimensions—mm (inches)**



**Wiring Diagram**



**Note:** Load can be switched to pin 1 (S1) and pin 2 (S2).