

871D 3-wire DC Cylinder Sensors

Cylinder Position Inductive Style



871D DC Mini
Quick-disconnect Style 12 mm



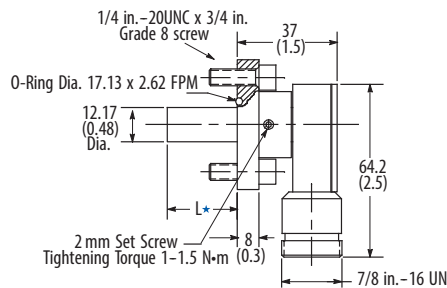
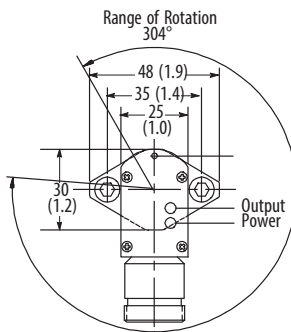
871D DC Micro
Quick-disconnect Style 12 mm

Specifications

Attribute	871D
Outputs	Normally open
Load Current, Max.	<200 mA
Load Current, Nom.	≤10 mA (non-activated), ≤18 mA (activated)
Leakage Current	<80 μA
Operating Voltage	10...30V DC
Voltage Drop	<2.5V DC @ 200 mA
Switching Frequency	10 Hz
Repeatability	5% typical
Hysteresis	15% typical
Protection Type	Reverse polarity, false pulse, transient noise, short circuit, and overload
Weld Field Immunity	20,000 A @ 1 in.
Certifications	c-UL-us Listed and CE Marked for all applicable directives
Enclosure Type Rating	NEMA 1, 2, 3, 3R, 4, 6, 12, 13; IP67 (IEC 529)
Connection Type	Quick Disconnect: 4-pin mini style, 4-pin micro style
Status Indicator	<ul style="list-style-type: none"> • Green: Power • Orange: Output
Operating Temperature	-25...+70 °C (-13...+158 °F)
Shock	30 g (1.06 oz), 11 ms
Vibration	55 Hz, 1 mm amplitude, 3 planes
Housing Material	Machined aluminum
Probe Material	Stainless steel, ceramic face

Approximate Dimensions [mm (in.)]

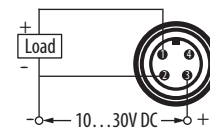
Mini-connector Models



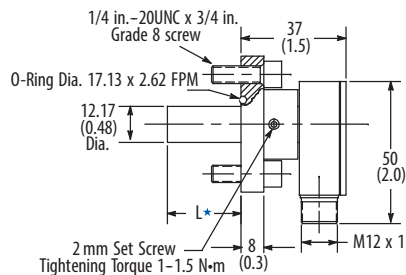
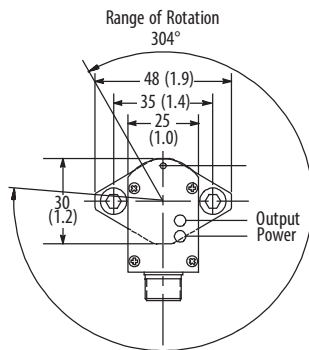
Wiring Diagrams

Normally Open

NPN (Sinking)

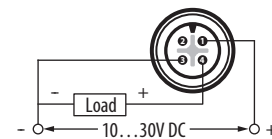


Micro-connector Models



Normally Open

PNP (Sourcing)



L* = Probe length varies by catalog number. See Product Selection tab on <http://ab.rockwellautomation.com>.

871D 2-wire AC/DC Cylinder Sensors

Cylinder Position Inductive Style



871D DC Mini
Quick-disconnect Style 12 mm



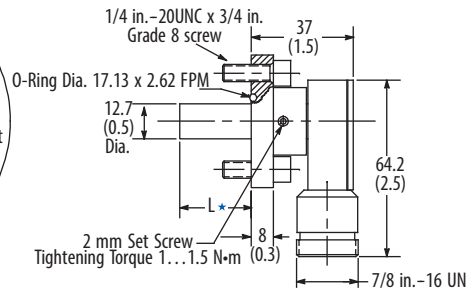
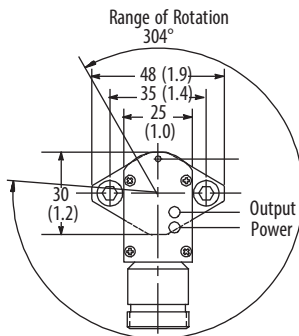
871D DC Micro
Quick-disconnect Style 12 mm

Specifications

Attribute	871D
Outputs	Normally open
Load Current	5...400 mA
Inrush Current (one cycle)	<3 A (t < 20 msec)
Leakage Current	<1.7 mA @ 120V AC
Operating Voltage	20...250V AC/DC
Voltage Drop	<6V @ 400 mA
Switching Frequency	50 Hz
Repeatability	5% typical
Hysteresis	15% typical
Protection Type	False pulse, transient noise, short circuit, and overload
Weld Field Immunity	20,000 A @ 1 in.
Certifications	c-UL-us Listed and CE Marked for all applicable directives
Enclosure Type Rating	NEMA 1, 2, 3, 3R, 4, 6, 12, 13; IP67 (IEC 529)
Connection Type	Quick Disconnect: 3-pin mini style, 3-pin micro style
Status Indicator	<ul style="list-style-type: none"> Green: Power Orange: Output
Operating Temperature	-25...+70 °C (-13...+158 °F)
Shock	30 g (1.06 oz), 11 ms
Vibration	55 Hz, 1 mm amplitude, 3 plane

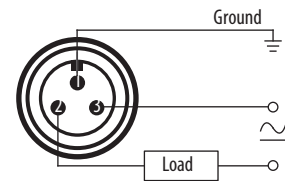
Approximate Dimensions [mm (in.)]

Mini-connector Models

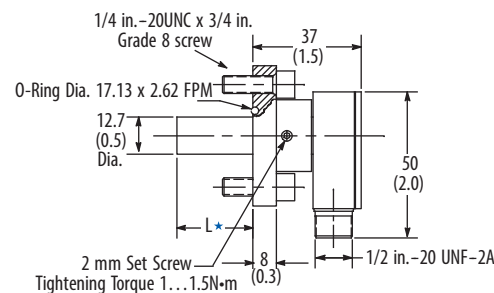
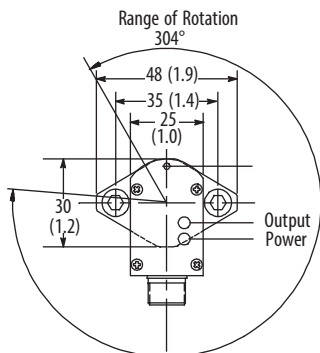


Wiring Diagrams

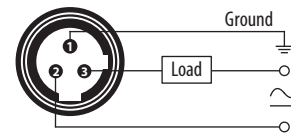
Normally Open



Micro-connector Models



Normally Open or Normally Closed



L* = Probe length varies by catalog number. See Product Selection tab on <http://ab.rockwellautomation.com>.

871D DC WorldClamp™ Cylinder Sensors

Power Clamp and Gripper Style



Bul.871D DC - Small Chicklet
100 mm, 165 mm, and 200 mm



Bul.871D DC - Large Chicklet
100 mm, 165 mm, and 200 mm



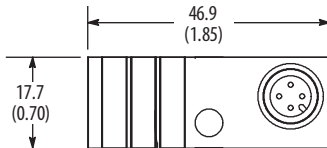
Bul.871D DC - Cylindrical Chicklet
100 mm

Specifications

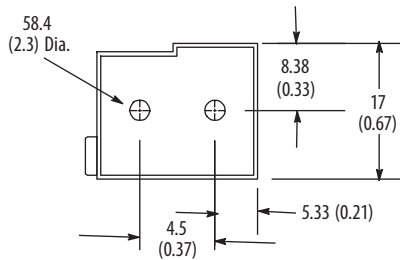
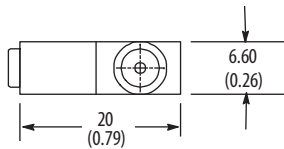
Attribute	871D
Load Current	150 mA max
Leakage Current	<10 µA
Operating Voltage	10...30V DC
Voltage Drop	<2.5V
Repeatability	<2%
Hysteresis	5% typical
Protection Type	False pulse, transient noise, short circuit, and overload
Weld Field Immunity	1600 Gauss
Certifications	c-UL-us Listed and CE Marked for all applicable directives
Enclosure Type Rating	IP67
Connection Type	4-pin micro quick-disconnect
Status Indicator	<ul style="list-style-type: none"> Green: Power Orange: S1 output Red: S2 output
Operating Temperature	-25...+70 °C (-13...+158 °F)
Shock	30 g (1.06 oz), 11 ms
Vibration	55 Hz, 1 mm amplitude, 3 planes

Approximate Dimensions [mm (in.)]

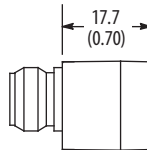
Front View



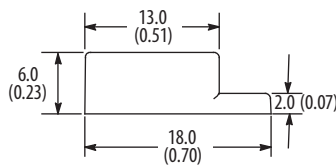
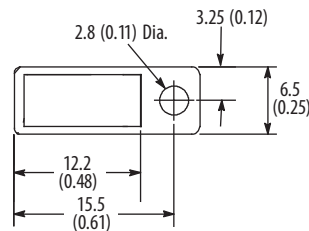
Large Chicklet



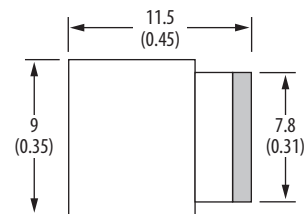
Side View



Small Chicklet

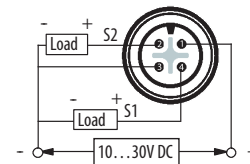


Cylindrical Chicklet



Wiring Diagrams

Normally Open PNP (Sourcing)



871D AC/DC WorldClamp Cylinder Sensors

Power Clamp and Gripper Style



Bul.871D AC/DC - Small Chicklet
100 mm, 165 mm, and 200 mm

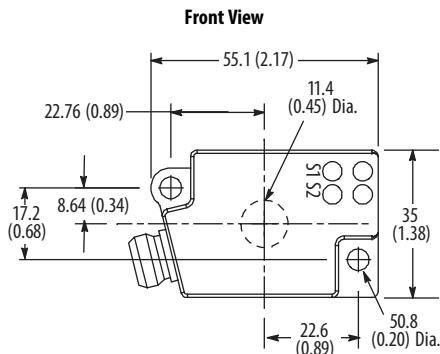


Bul.871D AC/DC - Large Chicklet
100 mm, 165 mm, and 200 mm

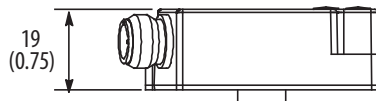
Specifications

Attribute	871D
Load Current	100 mA max
Inrush Current	≤2 A (one cycle)
Leakage Current	<1.7 mA
Operating Voltage	20...150V AC/DC
Voltage Drop	<10V
Repeatability	<2%
Hysteresis	5% typical
Protection Type	False pulse, transient noise, short circuit, and overload
Weld Field Immunity	1600 Gauss
Certifications	c-UL-us Listed and CE Marked for all applicable directives
Enclosure Type Rating	IP67
Connection Type	5-pin AC micro quick-disconnect
Status Indicator	<ul style="list-style-type: none"> • Two green: power S1 and S2 • Orange: S1 output • Red: S2 output
Operating Temperature	-25...+70 °C (-13...+158 °F)
Shock	30 g (1.06 oz), 11 ms
Vibration	55 Hz, 1 mm amplitude, 3 planes

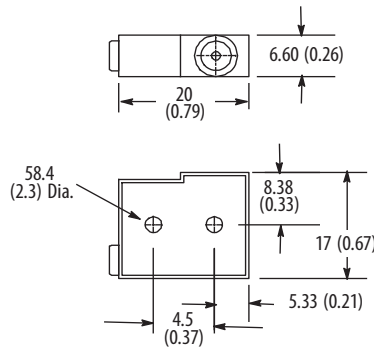
Approximate Dimensions [mm (in.)]



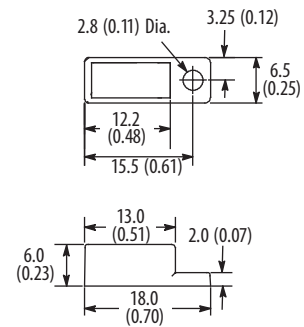
Side View



Large Chicklet



Small Chicklet



Wiring Diagrams Normally Open

