



871C AC Cable Style  
 18, 30mm  
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871C AC Mini  
 Quick-Disconnect Style  
 12, 18, 30mm  
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871C AC Micro  
 Quick-Disconnect Style  
 12, 18, 30mm  
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### Features

- 2-wire operation
- 2-conductor or 3-pin connection
- 40–250V AC
- Normally open or normally closed output
- Short circuit, false pulse, overload, and transient noise protection
- UL listed, CSA certified, and CE marked for all applicable directives

### Specifications

Barrel Diameter	12mm	18mm
Load Current	≤250mA	≤400mA
Minimum Load Current	5mA	
Inrush Current (1 cycle)	≤2A	≤4A
Leakage Current	≤1.7mA at 120V AC	
Operating Voltage	40–250V AC	
Voltage Drop	≤5V at 250mA, 10V at 10mA	≤5V at 400mA 10V at 10mA
Repeatability	≤10% at constant temperature	
Hysteresis	10% typical	
False Pulse Protection	Incorporated	
Transient Noise Protection	Incorporated	
Short Circuit Protection	Incorporated	
Overload Protection	Incorporated	
Approvals	UL listed, CSA certified, and CE marked for all applicable directives	
Enclosure	NEMA 1, 2, 3, 3R, 4, 4X, 6, 6P, 12, 13 IP67 (IEC 529) Nickel plated brass barrel	
Connections	Cable: 2m (6.5ft) length 2-conductor PVC Quick Disconnect: 3-pin micro style 3-pin mini style	
LED	Red: Output energized Green: Power/Short Circuit (Flashing)	
Operating Temperature	–25°C to +70°C (–13°F to +158°F)	
Shock	30g, 11ms	
Vibration	55Hz, 1mm amplitude, 3 planes	

### Correction Factors

Target Material	Correction Factor
Steel	1.0
Stainless Steel	0.9
Brass	0.5
Aluminum	0.45
Copper	0.4

## Inductive Proximity Sensors

# 871C 2-Wire AC Full Featured

Plastic Face/Threaded Nickel-Plated Brass Barrel

### Product Selection

Barrel Diameter	Nominal Sensing Distance mm (inches)	Shielded	Output Configuration	Switching Frequency (Hz)	Catalog Number		
					Cable Style	Mini QD Style	Micro QD Style
12mm	2 (0.08)	Y	N.O.	30	—	871C-A2N12-N3	871C-A2N12-R3
			N.C.	20	—	871C-A2C12-N3	871C-A2C12-R3
18mm	5 (0.20)	Y	N.O.	30	871C-A5N18-A2	871C-A5N18-N3	871C-A5N18-R3
			N.C.	20	871C-A5C18-A2	871C-A5C18-N3	871C-A5C18-R3
30mm	10 (0.39)	Y	N.O.	30	871C-A10N30-A2	871C-A10N30-N3	871C-A10N30-R3
			N.C.	20	871C-A10C30-A2	871C-A10C30-N3	871C-A10C30-R3
Recommended Standard QD Cordset (-6F = 1.8m (6ft), -2 = 2m (6.5ft))						889N-F3AFC-6F	889R-F3ACA-2

### QD Cordsets and Accessories

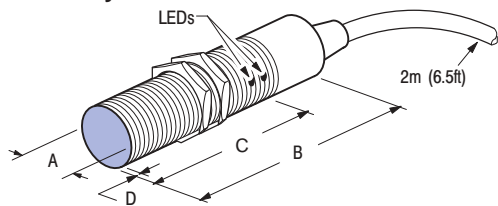
Description	Page Number
Other Cordsets Available	7-8, 7-68
Mounting Brackets	2-186 - 2-190
End Caps	2-196
Mounting Nuts	2-197 - 2-198

# 871C 2-Wire AC Full Featured

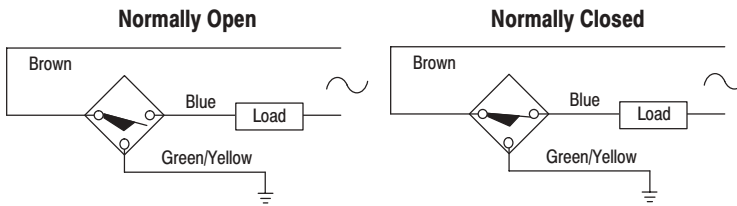
Plastic Face/Threaded Nickel-Plated Brass Barrel

## Dimensions—mm (inches)

### Cable Style



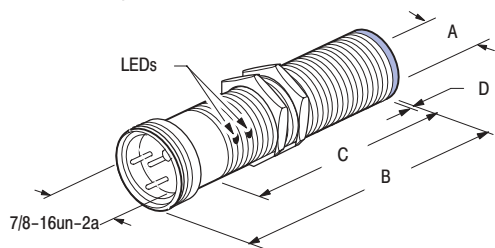
## Wiring Diagram



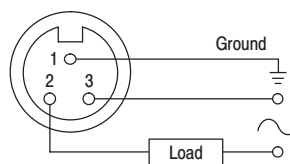
Note: Load can be switched to brown wire.

Thread Size	Shielded	mm (inches)			
		A	B	C	D
M18 X 1	Y	18.0 (0.71)	70.5 (2.78)	57.5 (2.26)	0.8 (0.03)
M30 X 1.5	Y	30.0 (1.18)	77.4 (3.05)	63.4 (2.50)	0.8 (0.03)

### Mini QD Style



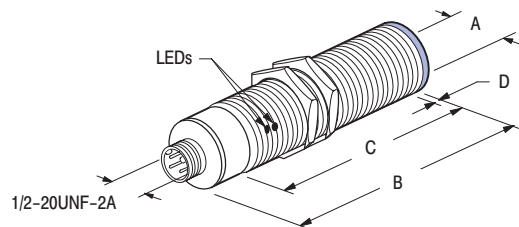
### Normally Open or Normally Closed



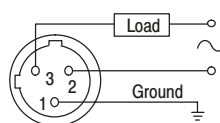
Note 1: No ground wire on 12mm. Attach housing to ground.  
 Note 2: Load can be switched to pin 3.

Thread Size	mm (inches)			
	A	B	C	D
M12 X 1	12.0 (0.47)	83.3 (3.28)	37.5 (1.48)	0.8 (0.03)
M18 X 1	18.0 (0.71)	72.5 (2.85)	52.4 (2.06)	
M30 X 1.5	30.0 (1.18)	86.5 (3.41)	62.6 (2.47)	

### Micro QD Style



### Normally Open or Normally Closed



Note 1: No ground wire on 12mm. Attach housing to ground.  
 Note 2: Load can be switched to pin 2.

Thread Size	mm (inches)			
	A	B	C	D
M12 X 1	12.0 (0.47)	85.3 (3.36)	38.11 (1.50)	0.8 (0.03)
M18 X 1	18.0 (0.71)	80.3 (3.16)	56.7 (2.23)	
M30 X 1.5	30.0 (1.18)	85.7 (3.37)	62.6 (2.47)	