

872C WorldProx™ 2-Wire AC

Plastic Face/Threaded Nickel-Plated Brass Barrel



872C AC Cable Style
8mm



872C AC Cable Style
12, 18, 30mm
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872C AC Mini
Quick-Disconnect Style
18, 30mm
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872C AC Micro
Quick-Disconnect Style
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Specifications

	8mm	12mm	30mm
Load Current	100mA max	≤300mA	≤500mA
Minimum Load Current	5mA		
Inrush Current (1 cycle)	≤2A		≤8A (18 & 30mm)
Leakage Current	≤2mA		
Operating Voltage	20–240V AC	20–250V AC	
Voltage Drop	≤5V		
Repeatability	≤5%		
Hysteresis	15%	≤15% typical	
False Pulse Protection	Incorporated		
Transient Noise Protection	Incorporated		
Approvals	CE marked for all applicable directives		
Enclosure	NEMA 1, 2, 3, 4, 12, 13 IP67 (IEC 529) Nickel-plated brass barrel		
Connections	Cable: 2m (6.5ft) length 3-conductor PVC Quick-Disconnect: 3-pin micro style 3-pin mini style		
LED	Red: Output Energized, 360° visibility		
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

Features

- 2-wire operation
- 3-conductor or 3-pin connection
- 20–250V AC (20–240V AC for 8mm)
- Normally open or normally closed output
- False pulse and transient noise protection
- Extended sensing distance on 18mm unshielded models
- CE marked for all applicable directives

Allen-Bradley Spares

Product Selection

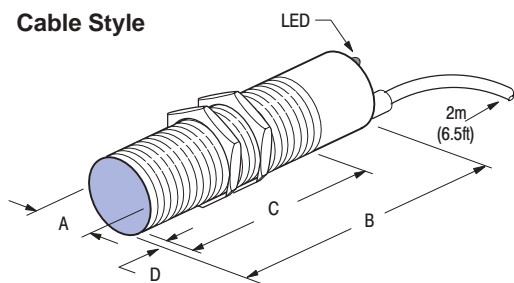
Barrel Diameter	Nominal Sensing Distance mm (inches)	Shielded	Output Configuration	Switching Frequency (Hz)	Catalog Number		
					Cable Style	Mini QD Style	Micro QD Style
8mm	1.5 (0.06)	Y	N.O.	25	872C-A1N8-A2	—	—
			N.C.		872C-A1C8-A2	—	—
	2 (0.08)	N	N.O.		872C-A2N8-A2	—	—
			N.C.		872C-A2C8-A2	—	—
12mm	2 (0.08)	Y	N.O.	15	872C-A2N12-A2	—	872C-A2N12-R3
			N.C.		872C-A2C12-A2	—	872C-A2C12-R3
	4 (0.16)	N	N.O.		872C-A4N12-A2	—	872C-A4N12-R3
			N.C.		872C-A4C12-A2	—	872C-A4C12-R3
18mm	5 (0.20)	Y	N.O.	15	872C-A5N18-A2	872C-A5N18-N3	872C-A5N18-R3
			N.C.		872C-A5C18-A2	872C-A5C18-N3	872C-A5C18-R3
	10 (0.39)	N	N.O.		872C-A10N18-A2	872C-A10N18-N3	872C-A10N18-R3
			N.C.		872C-A10C18-A2	872C-A10C18-N3	872C-A10C18-R3
30mm	10 (0.39)	Y	N.O.	15	872C-A10N30-A2	872C-A10N30-N3	872C-A10N30-R3
			N.C.		872C-A10C30-A2	872C-A10C30-N3	872C-A10C30-R3
	15 (0.59)	N	N.O.		872C-A15N30-A2	872C-A15N30-N3	872C-A15N30-R3
			N.C.		872C-A15C30-A2	872C-A15C30-N3	872C-A15C30-R3
Recommended Standard QD Cordset (-6F = 1.8m (6ft), -2 = 2m (6.5ft))					889N-F3AFC-6F	889R-F3ACA-2	

QD Cordsets and Accessories

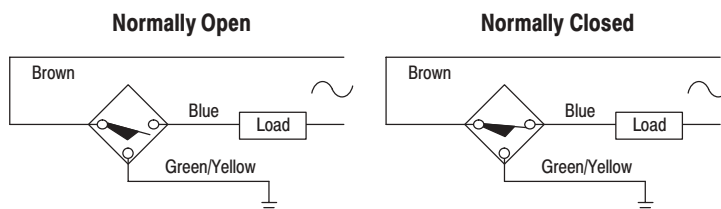
Description	Page Number
Other Cordsets Available	7-8, 7-68
Terminal Chambers	7-20, 7-81
Mounting Brackets	2-186 - 2-190
End Caps	2-196
Mounting Nuts	2-197 - 2-198

Dimensions—mm (inches)

Cable Style



Wiring Diagrams



NOTE: Load can be switched to brown wire.

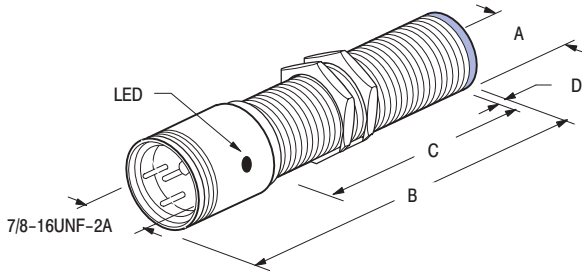
Thread Size	Shielded	mm (inches)			
		A	B	C	D
M8 X 1	Y	8.0 (0.32)	47.0 (1.85)	36.0 (1.42)	—
	N	6.0 (0.24)	47.0 (1.85)	36.0 (1.42)	6.0 (0.24)
M12 X 1	Y	12.0 (0.47)	70.0 (2.76)	60.0 (2.36)	—
	N			54.0 (2.13)	6.0 (0.24)
M18 X 1	Y	18.0 (0.71)	60.0 (2.36)	50.0 (1.96)	—
	N			42.0 (1.65)	8.0 (0.31)
M30 X 1.5	Y	30.0 (1.18)	60.0 (2.36)	50.0 (1.96)	—
	N			38.0 (1.50)	12.0 (0.47)

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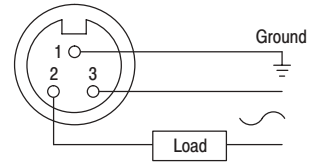
Dimensions—mm (inches)

Mini QD Style



Wiring Diagrams

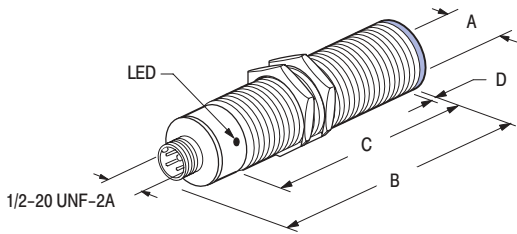
Normally Open or Normally Closed



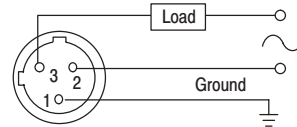
Note: Load can be switched to pin 3.

Thread Size	Shielded	mm (inches)			
		A	B	C	D
M18 X 1	Y	18.0 (0.71)	90.5 (3.56)	53.5 (2.09)	—
	N			45.5 (1.77)	8.0 (0.31)
M30 X 1.5	Y	30.0 (1.18)	90.0 (3.54)	56.0 (2.20)	—
	N			44.0 (1.73)	12.0 (0.47)

Micro Quick-Disconnect Style



Normally Open or Normally Closed



Note: Load can be switched to pin 2.

Thread Size	Shielded	mm (inches)			
		A	B	C	D
M12 X 1	Y	12.0 (0.47)	80.0 (3.15)	60.0 (2.36)	—
	N			54.0 (2.13)	6.0 (0.24)
M18 X 1	Y	18.0 (0.71)	80.0 (3.15)	60.0 (2.36)	—
	N			52.0 (2.05)	8.0 (0.31)
M30 X 1.5	Y	30.0 (1.18)	80.0 (3.15)	60.0 (2.36)	—
	N			48.0 (1.89)	12.0 (0.47)