

872C WorldProx™ 2-Wire AC

Plastic Face/Threaded Nickel-Plated Brass Barrel



872C AC Cable Style
8mm



872C AC Cable Style
12, 18, 30mm
page 2-65



872C AC Mini
Quick-Disconnect Style
18, 30mm
page 2-65



872C AC Micro
Quick-Disconnect Style
12, 18, 30mm
page 2-65



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

Product Selection

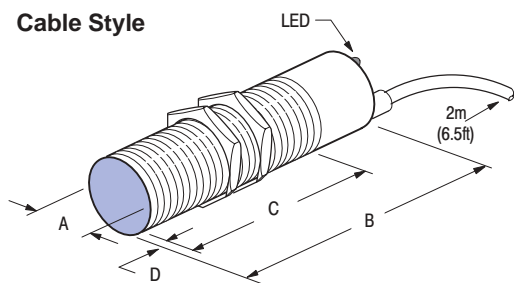
Barrel Diameter	Nominal Sensing Distance mm (inches)	Shielded	Output Configuration	Switching Frequency (Hz)	Catalog Number		
					Cable Style	Mini QD Style	Micro QD Style
8mm	1.5 (0.06)	Y	N.O.	25	872C-A1N8-A2	—	—
			N.C.		872C-A1C8-A2	—	—
	2 (0.08)	N	N.O.		872C-A2N8-A2	—	—
			N.C.		872C-A2C8-A2	—	—
12mm	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

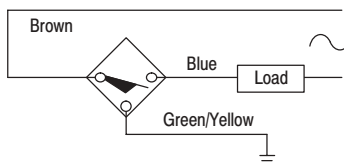
Dimensions—mm (inches)

Cable Style

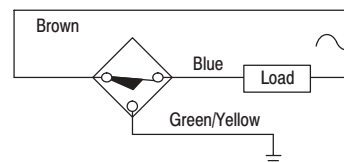


Wiring Diagrams

Normally Open



Normally Closed



NOTE: Load can be switched to brown wire.

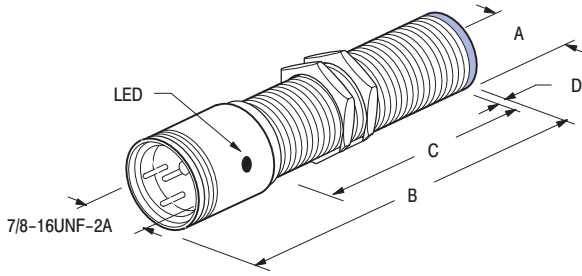
Thread Size	Shielded	mm (inches)			
		A	B	C	D
M8 X 1	Y	8.0 (0.32)	47.0 (1.85)	36.0 (1.42)	—
	N	6.0 (0.24)	47.0 (1.85)	36.0 (1.42)	6.0 (0.24)
M12 X 1	Y	12.0 (0.47)	70.0 (2.76)	60.0 (2.36)	—
	N			54.0 (2.13)	6.0 (0.24)
M18 X 1	Y	18.0 (0.71)	60.0 (2.36)	50.0 (1.96)	—
	N			42.0 (1.65)	8.0 (0.31)
M30 X 1.5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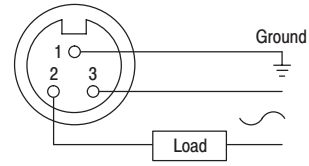
Dimensions—mm (inches)

Mini QD Style



Wiring Diagrams

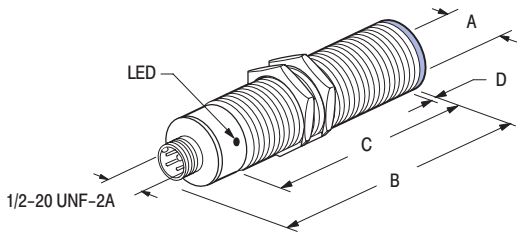
Normally Open or Normally Closed



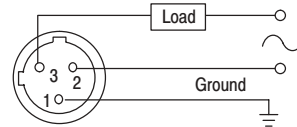
Note: Load can be switched to pin 3.

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)