

Specifications

	8 mm	12, 18, and 30 mm
Load Current, Max.	100 mA	≤300 mA
Load Current, Min.	5 mA	
Inrush Current	≤2 A	
Leakage Current	≤2 mA	
Operating Voltage	20...240V AC	20...250V AC
Voltage Drop	≤5V	
Repeatability	≤5%	
Hysteresis	≤15% typical	
Protection Type	False pulse, transient noise	
Certifications	cULus Listed (12, 18, and 30 mm models only) and CE Marked (all models) for all applicable directives	
Enclosure Type Rating	NEMA 1, 2, 3, 4, 12, 13; IP67 (IEC 529) Nickel-plated brass barrel	
Connection Type	Cable: 2 m (6.5 ft) length 3-conductor PVC Quick-Disconnect: 3-pin micro style 3-pin mini style	
LED	Red: output energized, 360° visibility	
Operating Temperature [C (F)]	-25...+70 ° (-13...+158 °)	
Shock	30 g, 11 ms	
Vibration	55 Hz, 1 mm 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

QD Cordsets and Accessories

Description	Page Number
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Terminal Chambers	8-2
Mounting Brackets	2-210...2-214
End Caps	2-220
Mounting Nuts	2-221...2-222

Features

- 2-wire operation
- 3-conductor or 3-pin connection
- 20...250V AC (20...240V AC for 8 mm)
- Normally open or normally closed output
- False pulse and transient noise protection
- Extended sensing distance on 18 mm unshielded models
- cULus Listed (12, 18, and 30 mm models only) and CE Marked (all models) for all applicable directives



872C AC Cable Style
8 mm



872C AC Cable Style
12, 18, 30 mm



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



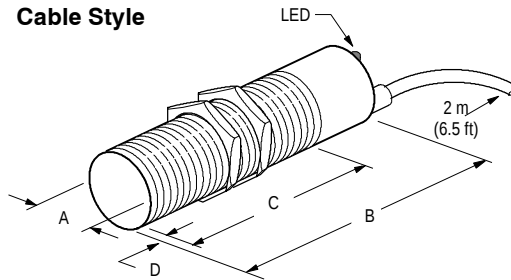
872C AC Micro
Quick-Disconnect Style
12, 18, 30 mm

Product Selection

Barrel Diameter	Nominal Sensing Distance [mm (in.)]	Shielded	Output Configuration	Switching Frequency [Hz]	Cat. No.		
					Cable Style	Mini QD Style	Micro QD Style
8 mm	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	—	—
12 mm	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
18 mm	5 (0.20)	Y	N.O.		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
30 mm	10 (0.39)	Y	N.O.		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 = 1.8 m (6 ft), -2 = 2 m (6.5 ft))						889N-F3AFC-6F	889R-F3ECA-2

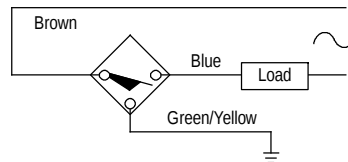
Approximate Dimensions [mm (in.)]

Cable Style

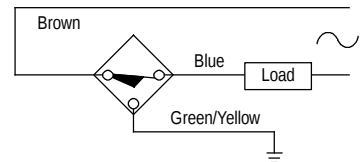


Wiring Diagrams

Normally Open



Normally Closed



NOTE: Load can be switched to brown wire.

Thread Size	Shielded	[mm (in.)]			
		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)

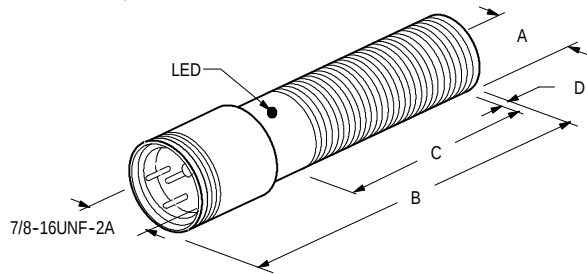
Inductive Proximity Sensors

872C WorldProx™ 2-Wire AC

Plastic Face/Threaded Nickel-Plated Brass Barrel

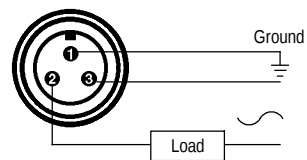
Approximate Dimensions [mm (in.)]

Mini QD Style



Wiring Diagrams

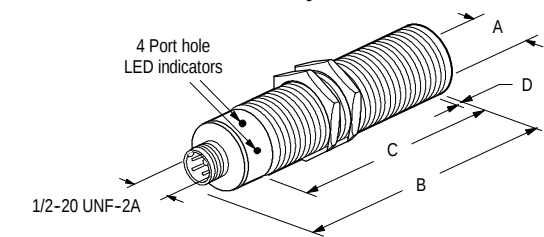
Normally Open or Normally Closed



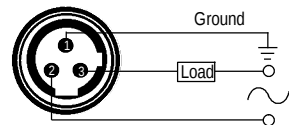
Note: Load can be switched to pin 3.

Thread Size	Shielded	[mm (in.)]			
		A	B	C	D
M18 X 1	Y	18.0 (0.71)	91.0 (3.58)	52.0 (2.05)	—
	N			44.0 (1.73)	8.0 (0.31)
M30 X 1.5	Y	30.0 (1.18)	91.0 (3.58)	52.0 (2.25)	—
	N			40.0 (1.57)	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 (in.)]			
		A	B	C	D
M12 X 1	Y	12.0 (0.47)	75.0 (2.95)	45.0 (1.77)	—
	N			40.0 (1.57)	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)	50.0 (1.96)	—
	N			38.0 (1.50)	12.0 (0.47)