

872C WorldProx™ 2-Wire AC

Plastic Face/Threaded Nickel-Plated Brass Barrel



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

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

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
Other Cordsets Available	8-2
Terminal Chambers	8-2
Mounting Brackets	2-210...2-214
End Caps	2-220
Mounting Nuts	2-221...2-222

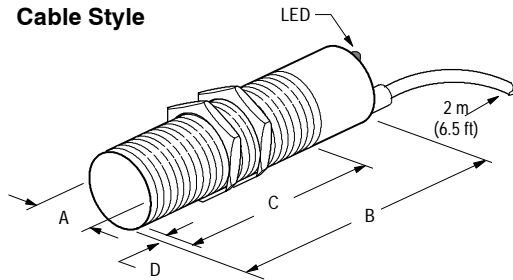


Product Selection

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.	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
30 mm	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 = 1.8 m (6 ft), -2 = 2 m (6.5 ft))					889N-F3AFC-6F	889R-F3ECA-2	

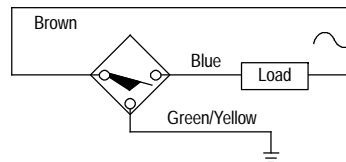
Approximate Dimensions [mm (in.)]

Cable Style

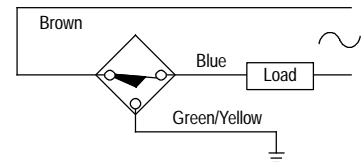


Wiring Diagrams

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)

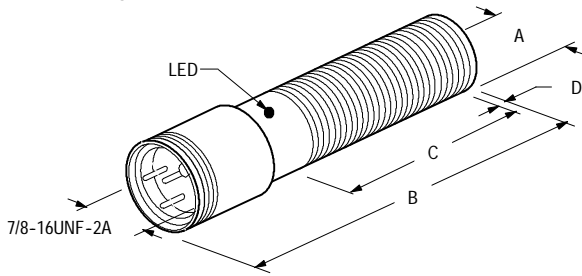
Inductive Proximity Sensors

872C WorldProx™ 2-Wire AC

Plastic Face/Threaded Nickel-Plated Brass Barrel

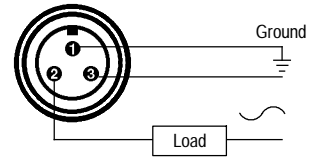
Approximate Dimensions [mm (in.)]

Mini QD Style



Wiring Diagrams

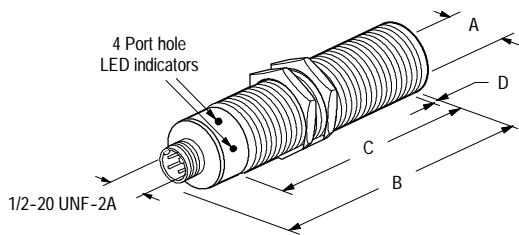
Normally Open or Normally Closed



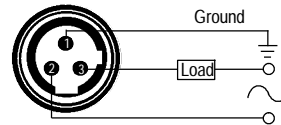
Note: Load can be switched to pin 3.

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)

Accessories

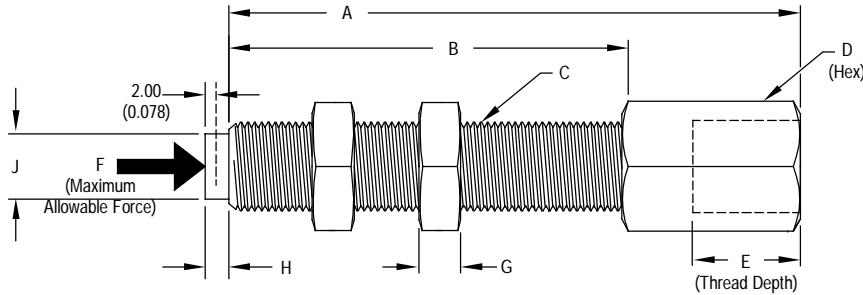
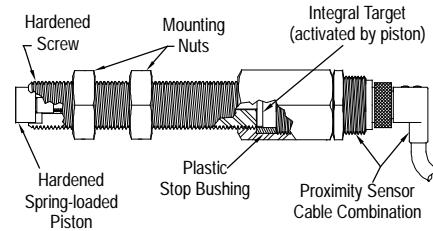
Banking Screw Adaptors

Description

Banking screw adaptors provide the flexibility to utilize inductive proximity sensors as mechanical stop switches. These banking screw adaptors are designed for use only with shielded sensors. Each banking screw adaptor is made of heat treated alloy steel

components and comes complete with two mounting nuts. Standard models require 252 g (9 oz) of force to activate the switch.

NOTE: Models are available requiring more force to activate the switch, contact factory for details.



Approximate Dimensions [mm (in.)]

For Use with:	A	B	C	D	E	F	G	H	J	Cat. No.
8 mm Shielded Sensors	57.2 (2.25)	25.0 (1.00)	M8 x 1	11.0 (0.43)	18.4 (0.72)	2,000 N (450 lb)	5.08 (0.20)	2.93 (0.115)	5.84	871A-AK8-25
	82.6 (3.25)	50.0 (2.00)								871A-AK8-50
12 mm Shielded Sensors	57.2 (2.25)	25.0 (1.00)	M12 x 1	15.7 (0.62)	17.4 (0.67)	20,500 N (4,608 lb)	6.35 (0.25)	4.22 (0.166)	9.40	871A-AK12-25
	82.6 (3.25)	50.0 (2.00)								871A-AK12-50
	108 (4.25)	75.0 (3.00)								871A-AK12-75
	133 (5.25)	100 (4.00)								871A-AK12-100
18 mm Shielded Sensors	57.2 (2.25)	25.0 (1.00)	M18 x 1	22.1 (0.87)	22.1 (0.87)	45,000 N (10,115 lb)	6.35 (0.25)	4.22 (0.166)	14.2	871A-AK18-25
	82.6 (3.25)	50.0 (2.00)								871A-AK18-50
	108 (4.25)	75.0 (3.00)								871A-AK18-75
	133 (5.25)	100 (4.00)								871A-AK18-100

Sensors for use with Banking Screw Adaptors

Sensor Diameter	Sensing Range [mm (in.)]	Specifications	Cat. No.
8 mm	1.5 (0.06)	(10...30V DC, N.O., PNP, Micro QD)	872C-DX15-D4
12 mm	2.0 (0.08)		872C-DX34-D4
18 mm	3.0 (0.12)		872C-DX33-D4
12 mm	1.0 (0.04)	(20...250V AC, N.O., Micro QD)	872C-A2N12-R3
18 mm	4.0 (0.16)		872C-A5N18-R3

Typical Application

