



Description

Bulletin 872C WorldProx inductive proximity sensors are self-contained, general purpose, solid-state devices designed to sense the presence of ferrous and nonferrous metal objects without touching them.

The switch body consists of a plastic face and a nickel-plated brass barrel. 3-Wire DC models offer an optional stainless steel or plastic switch body, both with a plastic face. It meets NEMA 1, 2, 3, 4, 6P, 12, 13 and IP67 (IEC529) enclosure standards. The electronic circuitry is fully potted for protection against shock, vibration, and contamination.

All models have a 360° visible LED. Cable models have a translucent end cap which glows when the LED indicator is on, and is visible from almost every angle. Quick-disconnect models have a four porthole LED design for better visibility from most angles. In addition to making installation easier, 360° visibility may facilitate troubleshooting.

These sensors are available in 6.5, 8, 12, 18 and 30 mm diameters. Connection options for 3-wire sensors include PVC or PUR cable jacket and mini, micro, and pico quick-disconnect style. Three-wire DC cable style sensors are available with 2, 5, or 10 m PVC or PUR cables (2 m PVC is standard).

Features

- Threaded nickel-plated brass barrel (optional stainless steel barrel)
- Threaded plastic barrel (3-wire DC only)
- 360° visible LED
- Cable or quick-disconnect styles
- Short circuit protection
- Overload protection
- Transient noise protection
- False pulse protection
- Reverse polarity protection
- cULus Listed and CE Marked for all applicable directives

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Inductive Proximity Sensors

872C/872CT WorldProx™ 3-Wire DC

Plastic Face/ Threaded Nickel-Plated Brass or Stainless Steel Barrel



DC Micro Quick-Disconnect Style
8, 12, 18, and 30 mm



DC Pico Quick-Disconnect Style
6.5, 8, 12, and 18 mm



DC Mini Quick-Disconnect Style
18 & 30 mm



DC Cable Style
6.5, 8, 12, 18, and 30 mm



Pigtail Cable with Integral Micro QD Connector
8, 12, 18, and 30 mm

Features

- 3-wire operation
- 3-conductor PVC or PUR cable jacket (PVC standard)
- 3- or 4-pin connection for pico, micro, and mini connectors
- PVC and PUR cable available in 2, 5, and 10 m cable lengths (2 m standard)
- Pigtail cable in PVC with integral micro QD connector available in 0.2, 0.5, and 1.0 m cable lengths
- 10...30V DC
- Normally open or normally closed
- Reverse polarity, short circuit, overload, false pulse, and transient noise protection
- cULus Listed (8, 12, 18, and 30 mm models only) and CE Marked (all models) for all applicable directives

Specifications

Load Current	≤200 mA
Leakage Current	≤10 µA
Operating Voltage	10...30V DC
Voltage Drop	≤1.8V
Repeatability	≤5%
Hysteresis	≤10% typical
Protection Type	False pulse on power, transient noise, reverse polarity, short circuit, and overload
Certifications	cULus Listed and CE Marked for all applicable directives
Enclosure Type Rating	NEMA 1, 2, 3, 4, 6P, 12, 13, IP 67 (IEC 529)
Housing Material	Nickel-plated brass barrel, plastic face (PBT) Optional stainless steel 304 barrel, plastic face (PBT)
Connections	Cable (PVC/PUR): 2 m (6.5 ft), 5 m (16.4 ft), 10 m (32.8 ft) length, 4.4 mm (0.175 in.) diameter; 3-conductor #26 AWG PVC or PUR; Cable (Pigtail): 0.2 m (0.7 ft), 0.5 m (1.6 ft), 1 m (3.3 ft) length, Integral 4-pin micro QD Quick-Disconnect: 4-pin mini, 4-pin micro or 3-pin pico style
LED	Amber: output energized, 360° visibility
Operating Temperature [C (F)], Min	-25...70° (-13...158°)
Shock	30 g, 11 ms half-sine
Vibration	55 Hz, 1 mm amplitude, 3 planes

Correction Factors

Target Material	Correction Factors
Steel	1.0
Stainless Steel	0.7...0.8
Brass	0.4...0.5
Aluminum	0.3...0.4
Copper	0.2...0.3

QD Cordsets and Accessories

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Inductive Proximity Sensors
872C/872CT WorldProx™ 3-Wire DC
 Plastic Face/ Threaded Nickel-Plated Brass or Stainless Steel Barrel

Product Selection

Barrel Diameter [mm]	Nominal Sensing Distance [mm (in.)]	Shielded	Output Configuration		Switching Frequency [Hz]	Cat. No.			
						Cable Style	Mini QD Style	Micro QD Style	Pico QD Style
6.5	2 (0.08)	Yes	N.O.	NPN	2000	872C-MM1NN7-E2	—		872C-MM1NN7-P3
				PNP		872C-MM1NP7-E2	—		872C-MM1NP7-P3
			N.C.	NPN		872C-MM1CN7-E2	—		872C-MM1CN7-P3
				PNP		872C-MM1CP7-E2	—		872C-MM1CP7-P3
8	2 (0.08)	Yes	N.O.	NPN	2500	★ 872C-D2NN8-E2	—	★ 872C-D2NN8-D4	★ 872C-D2NN8-P3
				PNP		★ 872C-D2NP8-E2	—	★ 872C-D2NP8-D4	★ 872C-D2NP8-P3
			N.C.	NPN		872C-D2CN8-E2	—	★ 872C-D2CN8-D4	★ 872C-D2CN8-P3
				PNP		872C-D2CP8-E2	—	★ 872C-D2CP8-D4	★ 872C-D2CP8-P3
	3 (0.12)	No	N.O.	NPN		872C-D3NN8-E2	—	★ 872C-D3NN8-D4	★ 872C-D3NN8-P3
				PNP		★ 872C-D3NP8-E2	—	★ 872C-D3NP8-D4	★ 872C-D3NP8-P3
			N.C.	NPN		872C-D3CN8-E2	—	★ 872C-D3CN8-D4	★ 872C-D3CN8-P3
				PNP		872C-D3CP8-E2	—	★ 872C-D3CP8-D4	★ 872C-D3CP8-P3
12	3 (0.12)	Yes	N.O.	NPN	1300	★ 872C-D3NN12-E2	—	★ 872C-D3NN12-D4	★ 872C-D3NN12-P3
				PNP		★ 872C-D3NP12-E2	—	★ 872C-D3NP12-D4	★ 872C-D3NP12-P3
			N.C.	NPN		872C-D3CN12-E2	—	★ 872C-D3CN12-D4	★ 872C-D3CN12-P3
				PNP		872C-D3CP12-E2	—	★ 872C-D3CP12-D4	★ 872C-D3CP12-P3
	4 (0.16)	No	N.O.	NPN		872C-D4NN12-E2	—	★ 872C-D4NN12-D4	★ 872C-D4NN12-P3
				PNP		★ 872C-D4NP12-E2	—	★ 872C-D4NP12-D4	★ 872C-D4NP12-P3
			N.C.	NPN		872C-D4CN12-E2	—	★ 872C-D4CN12-D4	★ 872C-D4CN12-P3
				PNP		872C-D4CP12-E2	—	★ 872C-D4CP12-D4	★ 872C-D4CP12-P3
18	5 (0.2)	Yes	N.O.	NPN	1500	★ 872C-D5NN18-E2	★ 872C-D5NN18-N4	★ 872C-D5NN18-D4	★ 872C-D5NN18-P3
				PNP		★ 872C-D5NP18-E2	★ 872C-D5NP18-N4	★ 872C-D5NP18-D4	★ 872C-D5NP18-P3
			N.C.	NPN		872C-D5CN18-E2	★ 872C-D5CP18-N4	★ 872C-D5CN18-D4	★ 872C-D5CN18-P3
				PNP		872C-D5CP18-E2	★ 872C-D5CP18-N4	★ 872C-D5CP18-D4	★ 872C-D5CP18-P3
	8 (0.31)	No	N.O.	NPN		872C-D8NN18-E2	★ 872C-D8NN18-N4	★ 872C-D8NN18-D4	★ 872C-D8NN18-P3
				PNP		★ 872C-D8NP18-E2	★ 872C-D8NP18-N4	★ 872C-D8NP18-D4	★ 872C-D8NP18-P3
			N.C.	NPN		872C-D8CN18-E2	★ 872C-D8CN18-N4	★ 872C-D8CN18-D4	★ 872C-D8CN18-P3
				PNP		872C-D8CP18-E2	★ 872C-D8CP18-N4	★ 872C-D8CP18-D4	★ 872C-D8CP18-P3
30	10 (0.39)	Yes	N.O.	NPN	1000	★ 872C-D10NN30-E2	★ 872C-D10NN30-N4	★ 872C-D10NN30-D4	—
				PNP		★ 872C-D10NP30-E2	★ 872C-D10NP30-N4	★ 872C-D10NP30-D4	—
			N.C.	NPN		★ 872C-D10CN30-E2	★ 872C-D10CN30-N4	★ 872C-D10CN30-D4	—
				PNP		★ 872C-D10CP30-E2	★ 872C-D10CP30-N4	★ 872C-D10CP30-D4	—
	15 (0.59)	No	N.O.	NPN		★ 872C-D15NN30-E2	★ 872C-D15NN30-N4	★ 872C-D15NN30-D4	—
				PNP		★ 872C-D15NP30-E2	★ 872C-D15NP30-N4	★ 872C-D15NP30-D4	—
			N.C.	NPN		★ 872C-D15CN30-E2	★ 872C-D15CN30-N4	★ 872C-D15CN30-D4	—
				PNP		★ 872C-D15CP30-E2	★ 872C-D15CP30-N4	★ 872C-D15CP30-D4	—
Recommended mating cable, 2 m (6.5 ft). See the <i>On-Machine Connectivity</i> catalog for details and additional lengths.						—	889N-F4AFC-6F	889D-F4AFC-2	889P-F3AB-2

★ Cat. no. listed is for a standard nickel-plated brass barrel. For a stainless steel barrel, add a **T** to the cat. no. **Example:** Cat. No. 872C-D4NN12-E2 becomes Cat. No. 872CT-D4NN12-E2.

Note: Preferred availability designation in table above applies to nickel-plated brass model only.

Cable Options (8, 12, 18, and 30 mm sensors only)

E2 at the end of cat. no. designates PVC cable 2 m in length. Replace **E2** with **E5** or **E10** for 5 or 10 m length.

For polyurethane cable replace **E2** with **J2**, **J5**, or **J10** for 2, 5, or 10 m length.

For PVC pigtail cable with integral micro QD style connector (4-pin DC male) replace **E2** with **FD02**, **FD05**, or **FD10** for 0.2, 0.5, or 1.0 m length.

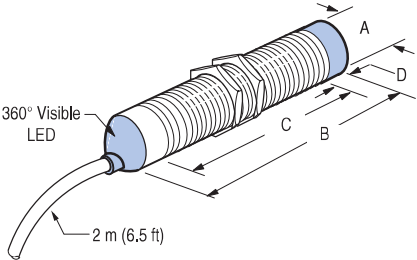
Cable Length	PVC	PUR
2 m	E2	J2
5 m	E5	J5
10 m	E10	J10

Pigtail Cable Length	PVC
0.2 m	FD02
0.5 m	FD05
1.0 m	FD10

Inductive Proximity Sensors
872C/872CT WorldProx™ 3-Wire DC
Plastic Face/ Threaded Nickel-Plated Brass or Stainless Steel Barrel

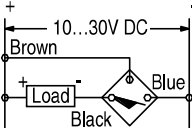
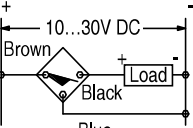
Approximate Dimensions—mm (in)
Cable Style

Wiring Diagrams



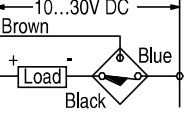
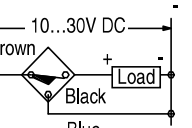
Normally Open

NPN (Sinking)
PNP (Sourcing)

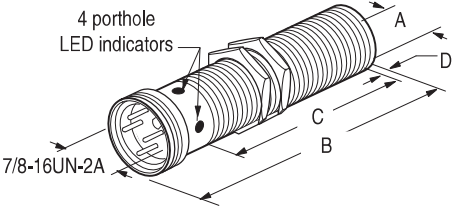
Normally Closed

NPN (Sinking)
PNP (Sourcing)

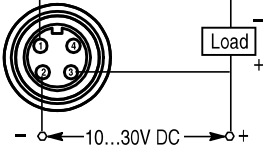
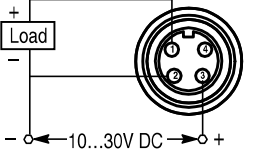
Thread Size	Barrel Type	Smooth Diameter	Shielded	mm (inches)				
				A	B (max)	C (min)	D (max)	
—	Nickel-plated brass	6.5	Y	6.50 (0.26)	33.0 (1.30)	—	—	
M8 x 1	Nickel-plated brass and stainless steel	—	Y	8.00 (0.31)	32.8 (1.29)	30.2 (1.19)	—	
			N		36.8 (1.45)		4.10 (0.16)	
M12 x 1		—	Y	12.0 (0.47)	50.8 (2.00)	46.7 (1.84)	—	
			N		58.9 (2.32)		8.10 (0.32)	
M18 x 1		—	Y	18.0 (0.71)	50.8 (2.00)	46.7 (1.84)	—	
			N		63.0 (2.48)		12.2 (0.48)	
M30 x 1		—	Y	30.0 (1.18)	50.8 (2.00)	47.7 (1.88)	—	
			N		63.0 (2.48)		12.2 (0.48)	

Mini QD Style



Normally Open or Normally Closed

NPN (Sinking)
PNP (Sourcing)

Thread Size	Barrel Type	Shielded	mm (inches)			
			A	B (max)	C (min)	D (max)
M18 x 1	Nickel-plated brass and stainless steel	Y	18.0 (0.71)	63.5 (2.50)	35.1 (1.38)	—
		N		75.7 (2.98)		12.2 (0.48)
M30 X 1.5	Nickel-plated brass	Y	30.0 (1.18)	63.5 (2.50)	38.1 (1.50)	—
		N		75.7 (2.98)		12.2 (0.48)
	Stainless steel	Y		64.3 (2.53)	47.8 (1.88)	—
		N		76.5 (3.01)		12.2 (0.48)

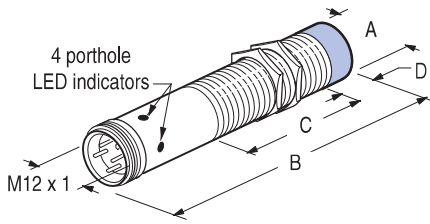


Inductive Proximity Sensors 872C/872CT WorldProx™ 3-Wire DC

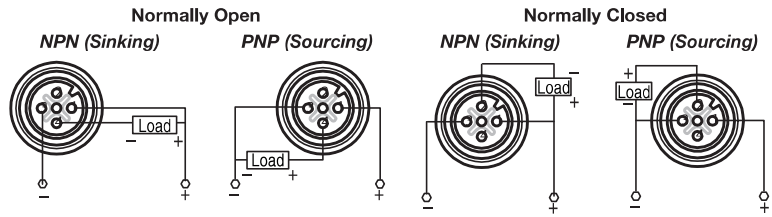
Plastic Face/ Threaded Nickel-Plated Brass or Stainless Steel Barrel

Approximate Dimensions—mm (in)

Micro QD Style

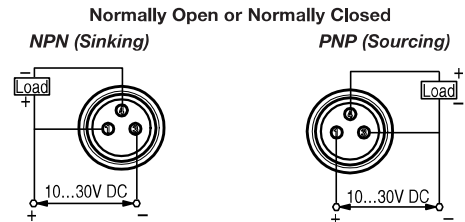
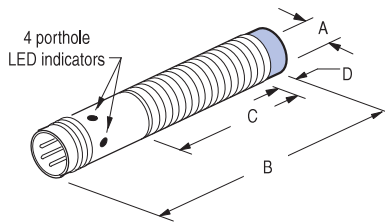


Wiring Diagrams



Thread Size	Barrel Type	Shielded	mm (inches)			
			A	B (max)	C (min)	D (max)
M8 x 1	Nickel-plated brass and stainless steel	Y	8.00 (0.31)	58.7 (2.31)	27.7 (1.09)	—
		N		62.7 (2.47)		4.00 (0.16)
M12 x 1		Y	12.0 (0.47)	64.3 (2.53)	38.1 (1.50)	—
		N		72.4 (2.85)		8.10 (0.32)
M18 x 1		Y	18.0 (0.71)	64.3 (2.53)	38.1 (1.50)	—
		N		76.5 (3.01)		12.2 (0.48)
M30 X 1.5		Y	30.0 (1.18)	64.3 (2.53)	47.75 (1.88)	—
		N		76.5 (3.01)		12.2 (0.48)

Pico QD Style



Thread Size	Barrel Type	Smooth Diameter	Shielded	mm (inches)			
				A	B (max)	C (min)	D (max)
—	Nickel-plated brass	6.5	Y	6.50 (0.26)	49.0 (1.93)	—	—
M8 x 1	Nickel-plated brass and stainless steel	—	Y	8.00 (0.31)	49.5 (1.95)	34.0 (1.34)	—
			N		53.6 (2.11)		4.10 (0.16)
M12 x 1		—	Y	12.0 (0.47)	63.5 (2.50)	47.5 (1.87)	—
			N		71.6 (2.82)		8.10 (0.32)
M18 x 1		—	Y	18.0 (0.71)	63.5 (2.50)	47.5 (1.87)	—
			N		75.7 (2.98)		12.2 (0.48)



Allen-Bradley

Visit our website: www.ab.com/catalogs
Preferred availability cat. nos. are printed in **bold**.



Inductive Proximity Sensors

872C/872CT WorldProx™ Short Barrel 3-Wire DC

Plastic Face/ Threaded Nickel-Plated Brass or Stainless Steel Barrel



DC Micro Quick-Disconnect Style
8, 12, 18, and 30 mm



DC Pico Quick-Disconnect Style
8, 12, and 18 mm



DC Mini Quick-Disconnect Style
18 & 30 mm



DC Cable Style
8, 12, 18, and 30 mm



Pigtail Cable with Integral Micro QD Connector
8, 12, 18, and 30 mm

Features

- 3 wire operation
- 3 conductor PVC or PUR cable jacket (PVC standard)
- 3 or 4 pin connection for pico, micro, and mini connectors
- PVC and PUR cable available in 2, 5, and 10 m cable lengths (2 m standard)
- Pigtail cable in PVC with integral micro QD connector available in 0.2, 0.5, and 1.0 m cable lengths
- 10...30V DC
- Normally open or normally closed
- Reverse polarity, short circuit, overload, false pulse, and transient noise protection
- cULus Listed and CE Marked for all applicable directives

Specifications

Load Current	≤200 mA
Leakage Current	≤10 μA
Operating Voltage	10...30V DC
Voltage Drop	≤1.8V
Repeatability	≤5%
Hysteresis	≤10% typical
Protection Type	False pulse on power, transient noise, reverse polarity, short circuit, and overload
Certifications	UL Listed and CE Marked for all applicable directives
Enclosure Type Rating	NEMA 1, 2, 3, 4, 6P, 12, 13, IP 67 (IEC 529)
Housing Material	Nickel-plated brass barrel, plastic face (PBT); Optional stainless steel 304 barrel, plastic face (PBT)
Connections	Cable (PVC/PUR): 2 m (6.5 ft), 5 m (16.4 ft), 10 m (32.8 ft) length, 4.4 mm (0.175 in.) diameter; 3-conductor #26 AWG PVC or PUR; Cable (Pigtail): 0.2 m (0.7 ft), 0.5 m (1.6 ft), 1 m (3.3 ft) length, Integral 4-pin micro QD Quick-Disconnect: 4-pin mini, 4-pin micro or 3-pin pico style
Status Indicator	Amber: Output energized, 360° visibility
Operating Temperature [C (F)], Min	-25...+70° (-13...+158°)
Shock	30 g, 11 ms
Vibration	55 Hz, 1 mm amplitude, 3 planes

Correction Factors

Target Material	Correction Factors
Steel	1.0
Stainless Steel	0.7...0.8
Brass	0.4...0.5
Aluminum	0.3...0.4
Copper	0.2...0.3

QD Cordsets and Accessories

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Inductive Proximity Sensors

872C/872CT WorldProx™ Short Barrel 3-Wire DC

Plastic Face/ Threaded Nickel-Plated Brass or Stainless Steel Barrel

Product Selection

Barrel Diameter [mm]	Nominal Sensing Distance [mm (in.)]	Shielded	Output Configuration		Switching Frequency [Hz]	Cat. No.			
						Cable Style★	Mini QD Style★	Micro QD Style★	Pico QD Style★
8	2 (0.08)	Yes	N.O.	NPN	2500	872C-DH2NN8-E2	—	872C-DH2NN8-D4	872C-DH2NN8-P3
				PNP		872C-DH2NP8-E2	—	872C-DH2NP8-D4	872C-DH2NP8-P3
			N.C.	NPN		872C-DH2CN8-E2	—	872C-DH2CN8-D4	872C-DH2CN8-P3
				PNP		872C-DH2CP8-E2	—	872C-DH2CP8-D4	872C-DH2CP8-P3
	3 (0.12)	No	N.O.	NPN		872C-DH3NN8-E2	—	872C-DH3NN8-D4	872C-DH3NN8-P3
				PNP		872C-DH3NP8-E2	—	872C-DH3NP8-D4	872C-DH3NP8-P3
			N.C.	NPN		872C-DH3CN8-E2	—	872C-DH3CN8-D4	872C-DH3CN8-P3
				PNP		872C-DH3CP8-E2	—	872C-DH3CP8-D4	872C-DH3CP8-P3
12	3 (0.12)	Yes	N.O.	NPN	1300	872C-DH3NN12-E2	—	872C-DH3NN12-D4	872C-DH3NN12-P3
				PNP		872C-DH3NP12-E2	—	872C-DH3NP12-D4	872C-DH3NP12-P3
			N.C.	NPN		872C-DH3CN12-E2	—	872C-DH3CN12-D4	872C-DH3CN12-P3
				PNP		872C-DH3CP12-E2	—	872C-DH3CP12-D4	872C-DH3CP12-P3
	4 (0.16)	No	N.O.	NPN		872C-DH4NN12-E2	—	872C-DH4NN12-D4	872C-DH4NN12-P3
				PNP		872C-DH4NP12-E2	—	872C-DH4NP12-D4	872C-DH4NP12-P3
			N.C.	NPN		872C-DH4CN12-E2	—	872C-DH4CN12-D4	872C-DH4CN12-P3
				PNP		872C-DH4CP12-E2	—	872C-DH4CP12-D4	872C-DH4CP12-P3
18	5 (0.2)	Yes	N.O.	NPN	1500	872C-DH5NN18-E2	872C-DH5NN18-N4	872C-DH5NN18-D4	872C-DH5NN18-P3
				PNP		872C-DH5NP18-E2	872C-DH5NP18-N4	872C-DH5NP18-D4	872C-DH5NP18-P3
			N.C.	NPN		872C-DH5CN18-E2	872C-DH5CN18-N4	872C-DH5CN18-D4	872C-DH5CN18-P3
				PNP		872C-DH5CP18-E2	872C-DH5CP18-N4	872C-DH5CP18-D4	872C-DH5CN18-P3
	8 (0.32)	No	N.O.	NPN		872C-DH8NN18-E2	872C-DH8NN18-N4	872C-DH8NN18-D4	872C-DH8NN18-P3
				PNP		872C-DH8NP18-E2	872C-DH8NP18-N4	872C-DH8NP18-D4	872C-DH8NP18-P3
			N.C.	NPN		872C-DH8CN18-E2	872C-DH8CN18-N4	872C-DH8CN18-D4	872C-DH8CN18-P3
				PNP		872C-DH8CP18-E2	872C-DH8CP18-N4	872C-DH8CP18-D4	872C-DH8CP18-P3
30	10 (0.39)	Yes	N.O.	NPN	1000	872C-DH10NN30-E2	872C-DH10NN30-N4	872C-DH10NN30-D4	—
				PNP		872C-DH10NP30-E2	872C-DH10NP30-N4	872C-DH10NP30-D4	—
			N.C.	NPN		872C-DH10CN30-E2	872C-DH10CN30-N4	872C-DH10CN30-D4	—
				PNP		872C-DH10CP30-E2	872C-DH10CP30-N4	872C-DH10CP30-D4	—
	15 (0.59)	No	N.O.	NPN		872C-DH15NN30-E2	872C-DH15NN30-N4	872C-DH15NN30-D4	—
				PNP		872C-DH15NP30-E2	872C-DH15NP30-N4	872C-DH15NP30-D4	—
			N.C.	NPN		872C-DH15CN30-E2	872C-DH15CN30-N4	872C-DH15CN30-D4	—
				PNP		872C-DH15CP30-E2	872C-DH15CP30-N4	872C-DH15CP30-D4	—
Recommended mating cable, 2 m (6.5 ft). (See <i>On-Machine Connectivity</i> catalog for details and additional lengths).						—	889N-F4AFC-6F	889D-F4AC-2	889P-F3AB-2

★ Cat. no. listed is for a standard nickel-plated brass barrel. For a stainless steel barrel, add a **T** to the cat. no. **Example:** Cat. No. 872C-DH4NP12-E2 becomes Cat. No. 872CT-DH4NP12-E2.

Note: Preferred availability designation in table above applies to nickel-plated brass model only.

Cable Options

E2 at the end of cat. no. designates PVC cable 2 m in length. Replace **E2** with **E5** or **E10** for 5 or 10 m length.

For polyurethane cable replace **E2** with **J2**, **J5**, or **J10** for 2, 5, or 10 m length.

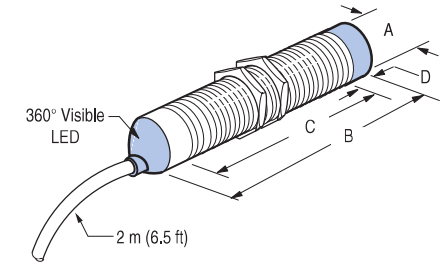
For PVC pigtail cable with integral micro QD style connector (4-pin DC male) replace **E2** with **FD02**, **FD05**, or **FD10** for 0.2, 0.5, or 1.0 m length.

Cable Length	PVC	PUR
2 m	E2	J2
5 m	E5	J5
10 m	E10	J10

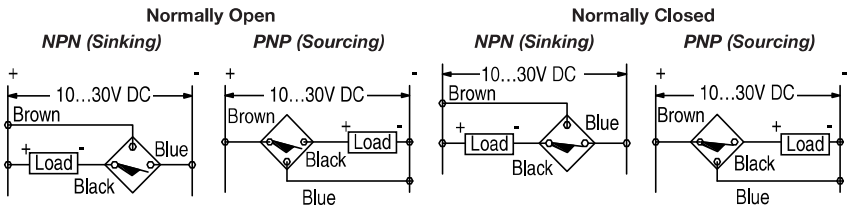
Pigtail Cable Length	PVC
0.2 m	FD02
0.5 m	FD05
1.0 m	FD10

Inductive Proximity Sensors
872C/872CT WorldProx™ Short Barrel 3-Wire DC
Plastic Face/ Threaded Nickel-Plated Brass or Stainless Steel Barrel

Approximate Dimensions—mm (in)
Cable Style

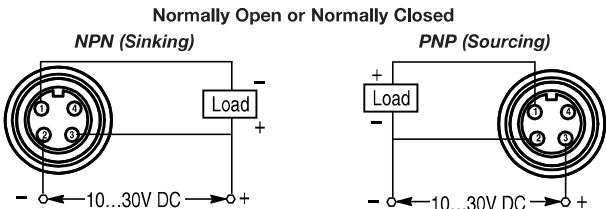
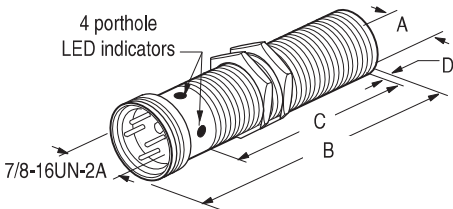


Wiring Diagrams



Thread Size	Barrel Type	Shielded	mm (inches)			
			A	B (max)	C (min)	D (max)
M8 x 1	Nickel-plated brass and stainless steel	Y	8.00 (0.31)	26.7 (1.05)	24.1 (0.95)	—
		N		30.7 (1.21)		4.10 (0.16)
M12 x 1		Y	12.0 (0.47)	34.8 (1.37)	31.8 (1.25)	—
		N		42.9 (1.69)		8.10 (0.32)
M18 x 1		Y	18.0 (0.71)	34.8 (1.37)		—
		N		47.0 (1.85)		12.2 (0.48)
M30 x 1	Nickel-plated brass	Y	30.0 (1.18)	34.8 (1.37)		—
		N		47.0 (1.85)		12.2 (0.48)
	Stainless steel	Y		34.3 (1.35)	—	
		N			49.5 (1.95)	12.2 (0.48)

Mini QD Style



Thread Size	Barrel Type	Shielded	mm (inches)			
			A	B (max)	C (min)	D (max)
M18 x 1	Nickel-plated brass and stainless steel	Y	18.0 (0.71)	47.5 (1.87)	24.2 (0.95)	—
		N		59.7 (2.35)		12.2 (0.48)
M30 X 1.5	Nickel-plated brass	Y	30.0 (1.18)	47.5 (1.87)	26.4 (1.04)	—
		N		59.7 (2.35)		12.2 (0.48)
	Stainless steel	Y		50.8 (2.00)	34.3 (1.35)	—
		N		63.0 (2.48)		12.2 (0.48)



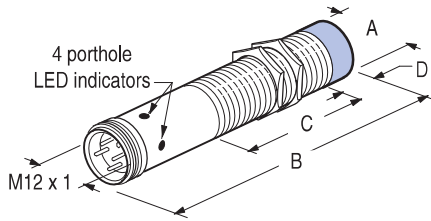
Inductive Proximity Sensors

872C/872CT WorldProx™ Short Barrel 3-Wire DC

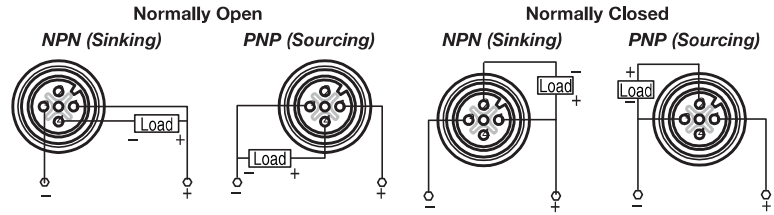
Plastic Face/ Threaded Nickel-Plated Brass or Stainless Steel Barrel

Approximate Dimensions—mm (in)

Micro QD Style

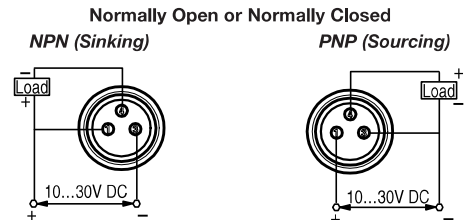
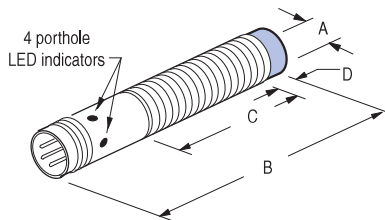


Wiring Diagrams



Thread Size	Barrel Type	Shielded	mm (inches)			
			A	B (max)	C (min)	D (max)
M8 x 1	Nickel-plated brass and stainless steel	Y	8.00 (0.31)	45.2 (1.78)	20.1 (0.79)	—
		N		49.3 (1.94)		4.10 (0.16)
M12 x 1		Y	12.0 (0.47)	48.3 (1.90)	27.4 (1.08)	—
		N		56.4 (2.22)		8.10 (0.32)
M18 x 1	Nickel-plated brass	Y	18.0 (0.71)	49.5 (1.95)	26.4 (1.04)	—
		N		61.7 (2.43)		12.2 (0.48)
	Stainless steel	Y		48.3 (1.90)	31.8 (1.25)	—
		N		60.5 (2.38)		12.2 (0.48)
M30 X 1.5	Nickel-plated brass and stainless steel	Y	30.0 (1.18)	50.8 (2.00)	31.8 (1.25)	—
		N		63.2 (2.49)		12.2 (0.48)

Pico QD Style



Thread Size	Barrel Type	Shielded	mm (inches)			
			A	B (max)	C (min)	D (max)
M8 x 1	Nickel-plated brass and stainless steel	Y	8.00 (0.31)	44,5 (1,75)	29.0 (1.14)	—
		N		48,5 (1,91)		4,10 (0,16)
Y		12.0 (0.47)	45,2 (1,78)	29,2 (1,15)	—	
N			53,3 (2,10)		8,10 (0,32)	
M18 x 1		Y	18.0 (0.71)	47,5 (1,87)	31.5 (1.24)	—
		N		59,7 (2,35)		12,2 (0,48)



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Inductive Proximity Sensors
872C/872CT WorldProx™ Extended Sensing 3-Wire DC
 Plastic Face/ Threaded Nickel-Plated Brass or Stainless Steel Barrel



DC Micro Quick-Disconnect Style
8, 12, 18, and 30 mm



DC Pico Quick-Disconnect Style
6.5, 8, 12, and 18 mm



DC Mini Quick-Disconnect Style
18 & 30 mm



DC Cable Style
6.5, 8, 12, 18, and 30 mm



Pigtail Cable with Integral Micro QD Connector
8, 12, 18, and 30 mm

Features

- 3-wire operation
- 3-conductor PVC or PUR cable jacket (PVC standard)
- 3- or 4-pin connection for pico, micro, and mini connectors
- PVC and PUR cable available in 2, 5, and 10 m cable lengths (2 m standard)
- Pigtail cable in PVC with integral micro QD connector available in 0.2, 0.5, and 1.0 m cable lengths
- 10...30V DC
- Normally open or normally closed
- Reverse polarity, short circuit, overload, false pulse, and transient noise protection
- cULus Listed and CE Marked for all applicable directives

Specifications

Load Current	≤200 mA
Leakage Current	≤10 µA
Operating Voltage	10...30V DC
Voltage Drop	≤1.8V
Repeatability	≤5%
Hysteresis	≤10% typical
Protection Type	False pulse on power, transient noise, reverse polarity, short circuit, and overload
Certifications	cULus Listed and CE Marked for all applicable directives
Enclosure Type Rating	NEMA 1, 2, 3, 4, 6P, 12, 13, IP 67 (IEC 529)
Housing Material	Nickel-plated brass barrel, plastic face (PBT) Optional stainless steel 304 barrel, plastic face (PBT)
Connections	Cable (PVC/PUR): 2 m (6.5 ft), 5 m (16.4 ft), 10 m (32.8 ft) length, 4.4 mm (0.175 in.) diameter; 3-conductor #26 AWG PVC or PUR; Cable (Pigtail): 0.2 m (0.7 ft), 0.5 m (1.6 ft), 1 m (3.3 ft) length, Integral 4-pin micro QD Quick-Disconnect: 4-pin mini, 4-pin micro or 3-pin pico style
LED	Amber: output energized, 360° visibility
Operating Temperature [C (F)], Min	-25...+70° (-13...+158°)
Shock	30 g, 11 ms half-sine
Vibration	55 Hz, 1 mm amplitude, 3 planes

Correction Factors

Target Material	Correction Factors
Steel	1.0
Stainless Steel	0.7...0.8
Brass	0.5...0.6
Aluminum	0.5...0.6
Copper	0.4...0.5

QD Cordsets and Accessories

Description	Page No.
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



Inductive Proximity Sensors

872C/872CT WorldProx™ Extended Sensing 3-Wire DC

Plastic Face/ Threaded Nickel-Plated Brass or Stainless Steel Barrel

Product Selection

Barrel Diameter [mm]	Nominal Sensing Distance [mm (in.)]	Shielded	Output Configuration		Switching Frequency [Hz]	Cat. No.			
						Cable Style★	Mini QD Style★	Micro QD Style★	Pico QD Style★
8	3 (0.12)	Yes	N.O.	NPN	2500	872C-M3NN8-E2	—	872C-M3NN8-D4	872C-M3NN8-P3
				PNP		872C-M3NP8-E2	—	872C-M3NP8-D4	872C-M3NP8-P3
			N.C.	NPN		872C-M3CN8-E2	—	872C-M3CN8-D4	872C-M3CN8-P3
				PNP		872C-M3CP8-E2	—	872C-M3CP8-D4	872C-M3CP8-P3
	4 (0.16)	No	N.O.	NPN		872C-N4NN8-E2	—	872C-N4NN8-D4	872C-N4NN8-P3
				PNP		872C-N4NP8-E2	—	872C-N4NP8-D4	872C-N4NP8-P3
			N.C.	NPN		872C-N4CN8-E2	—	872C-N4CN8-D4	872C-N4CN8-P3
				PNP		872C-N4CP8-E2	—	872C-N4CP8-D4	872C-N4CP8-P3
12	4 (0.16)	Yes	N.O.	NPN	1300	872C-M4NN12-E2	—	872C-M4NN12-D4	872C-M4NN12-P3
				PNP		872C-M4NP12-E2	—	872C-M4NP12-D4	872C-M4NP12-P3
			N.C.	NPN		872C-M4CN12-E2	—	872C-M4CN12-D4	872C-M4CN12-P3
				PNP		872C-M4CP12-E2	—	872C-M4CP12-D4	872C-M4CP12-P3
	8 (0.31)	No	N.O.	NPN		872C-N8NN12-E2	—	872C-N8NN12-D4	872C-N8NN12-P3
				PNP		872C-N8NP12-E2	—	872C-N8NP12-D4	872C-N8NP12-P3
			N.C.	NPN		872C-N8CN12-E2	—	872C-N8CN12-D4	872C-N8CN12-P3
				PNP		872C-N8CP12-E2	—	872C-N8CP12-D4	872C-N8CP12-P3
18	8 (0.31)	Yes	N.O.	NPN	1500	872C-M8NN18-E2	872C-M8NN18-N4	872C-M8NN18-D4	872C-M8NN18-P3
				PNP		872C-M8NP18-E2	872C-M8NP18-N4	872C-M8NP18-D4	872C-M8NP18-P3
			N.C.	NPN		872C-M8CN18-E2	872C-M8CN18-N4	872C-M8CN18-D4	872C-M8CN18-P3
				PNP		872C-M8CP18-E2	872C-M8CP18-N4	872C-M8CP18-D4	872C-M8CP18-P3
	12 (0.47)	No	N.O.	NPN		872C-N12NN18-E2	872C-N12NN18-N4	872C-N12NN18-D4	872C-N12NN18-P3
				PNP		872C-N12NP18-E2	872C-N12NP18-N4	872C-N12NP18-D4	872C-N12NP18-P3
			N.C.	NPN		872C-N12CN18-E2	872C-N12CN18-N4	872C-N12CN18-D4	872C-N12CN18-P3
				PNP		872C-N12CP18-E2	872C-N12CP18-N4	872C-N12CP18-D4	872C-N12CP18-P3
30	15 (0.59)	Yes	N.O.	NPN	1000	872C-M15NN30-E2	872C-M15NN30-N4	872C-M15NN30-D4	—
				PNP		872C-M15NP30-E2	872C-M15NP30-N4	872C-M15NP30-D4	—
			N.C.	NPN		872C-M15CN30-E2	872C-M15CN30-N4	872C-M15CN30-D4	—
				PNP		872C-M15CP30-E2	872C-M15CP30-N4	872C-M15CP30-D4	—
	20 (0.79)	No	N.O.	NPN		872C-N20NN30-E2	872C-N20NN30-N4	872C-N20NN30-D4	—
				PNP		872C-N20NP30-E2	872C-N20NP30-N4	872C-N20NP30-D4	—
			N.C.	NPN		872C-N20CN30-E2	872C-N20CN30-N4	872C-N20CN30-D4	—
				PNP		872C-N20CP30-E2	872C-N20CP30-N4	872C-N20CP30-D4	—
Recommended mating cable, 2 m (6.5 ft). See the <i>On-Machine Connectivity</i> catalog for details and additional lengths.						—	889N-F4AFC-6F	889D-F4AFC-2	889P-F3AB-2

★ Cat. no. listed is for a standard nickel-plated brass barrel. For a stainless steel barrel, add a **T** to the cat. no. **Example:** Cat. No. 872C-M3NN8-E2 becomes Cat. No. 872CT-M3NN8-E2.

Note: Preferred availability designation in table above applies to nickel-plated brass model only.

Cable Options

E2 at the end of cat. no. designates PVC cable 2 m in length. Replace **E2** with **E5** or **E10** for 5 or 10 m length.

For polyurethane cable replace **E2** with **J2**, **J5**, or **J10** for 2, 5, or 10 m length.

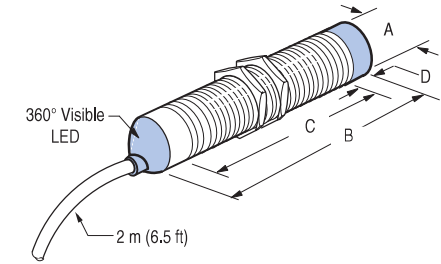
For PVC pigtail cable with integral micro QD style connector (4-pin DC male) replace **E2** with **FD02**, **FD05**, or **FD10** for 0.2, 0.5, or 1.0 m length.

Cable Length	PVC	PUR
2 m	E2	J2
5 m	E5	J5
10 m	E10	J10

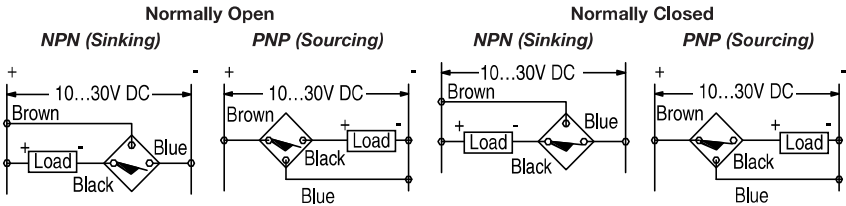
Pigtail Cable Length	PVC
0.2 m	FD02
0.5 m	FD05
1.0 m	FD10

Inductive Proximity Sensors
872C/872CT WorldProx™ Extended Sensing 3-Wire DC
Plastic Face/ Threaded Nickel-Plated Brass or Stainless Steel Barrel

Approximate Dimensions—mm (in)
Cable Style

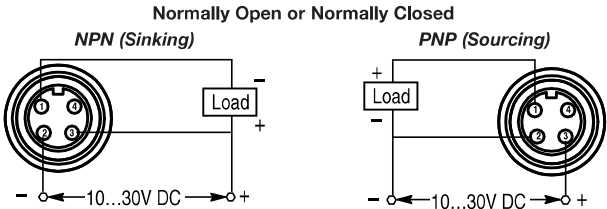
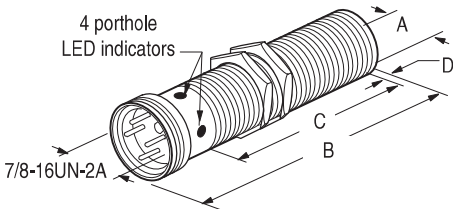


Wiring Diagrams



Thread Size	Barrel Type	Smooth Diameter	Shielded	mm (inches)			
				A	B (max)	C (min)	D (max)
M8 x 1	Nickel-plated brass and stainless steel	—	Y	8.00 (0.31)	32.8 (1.29)	30.2 (1.19)	—
N			36.8 (1.45)		4.10 (0.16)		
M12 x 1		—	Y	12.0 (0.47)	50.8 (2.00)	46.7 (1.84)	—
			N		58.9 (2.32)		8.10 (0.32)
M18 x 1		—	Y	18.0 (0.71)	50.8 (2.00)	46.7 (1.84)	—
			N		63.0 (2.48)		12.2 (0.48)
M30 x 1		—	Y	30.0 (1.18)	50.8 (2.00)	47.7 (1.88)	—
			N		63.0 (2.48)		12.2 (0.48)

Mini QD Style



Thread Size	Barrel Type	Shielded	mm (inches)			
			A	B (max)	C (min)	D (max)
M18 x 1	Nickel-plated brass and stainless steel	Y	18.0 (0.71)	63.5 (2.50)	35.1 (1.38)	—
		N		75.7 (2.98)		12.2 (0.48)
M30 X 1.5	Nickel-plated brass	Y	30.0 (1.18)	63.5 (2.50)	38.1 (1.50)	—
		N		75.7 (2.98)		12.2 (0.48)
	Stainless steel	Y		64.3 (2.53)	47.8 (1.88)	—
		N		76.5 (3.01)		12.2 (0.48)



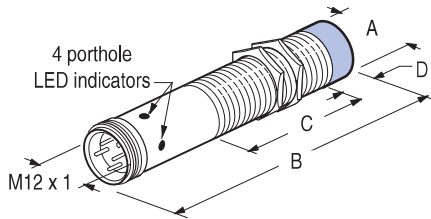
Inductive Proximity Sensors

872C/872CT WorldProx™ Extended Sensing 3-Wire DC

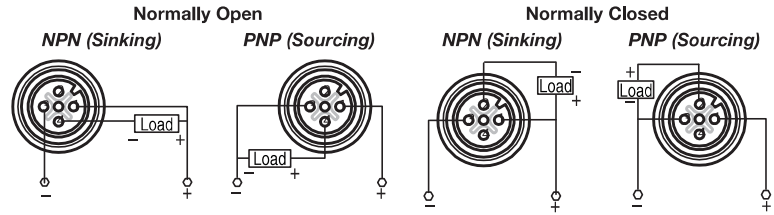
Plastic Face/ Threaded Nickel-Plated Brass or Stainless Steel Barrel

Approximate Dimensions—mm (in)

Micro QD Style

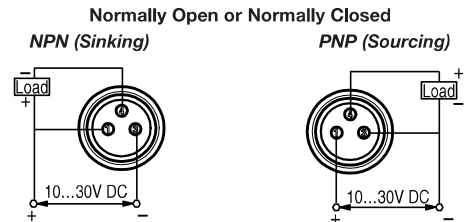
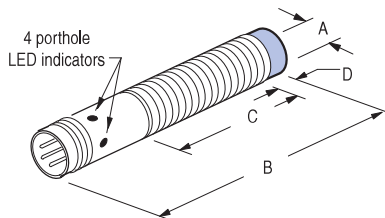


Wiring Diagrams



Thread Size	Barrel Type	Shielded	mm (inches)			
			A	B (max)	C (min)	D (max)
M8 x 1	Nickel-plated brass and stainless steel	Y	8.00 (0.31)	58.7 (2.31)	27.7 (1.09)	—
		N		62.7 (2.47)		4.00 (0.16)
M12 x 1		Y	12.0 (0.47)	64.3 (2.53)	38.1 (1.50)	—
		N		72.4 (2.85)		8.10 (0.32)
M18 x 1		Y	18.0 (0.71)	64.3 (2.53)	38.1 (1.50)	—
		N		76.5 (3.01)		12.2 (0.48)
M30 X 1,5		Y	30,0 (1.18)	64.3 (2.53)	47.75 (1.88)	—
		N		76,5 (3,01)		12,2 (0,48)

Pico QD Style



Thread Size	Barrel Type	Smooth Diameter	Shielded	mm (inches)			
				A	B (max)	C (min)	D (max)
M8 x 1	Nickel-plated brass and stainless steel	—	Y	8.00 (0,31)	49.5 (1.95)	34.0 (1.34)	—
N			53.6 (2,11)		4.10 (0.16)		
M12 x 1		—	Y	12.0 (0,47)	63.5 (2,50)	47.5 (1.87)	—
			N		71.6 (2.82)		8.10 (0.32)
M18 x 1		—	Y	18,0 (0,71)	63.5 (2,50)	47,5 (1,87)	—
			N		75.7 (2,98)		12,2 (0,48)

Inductive Proximity Sensors

872C/872CT WorldProx™ Short Barrel Extended Sensing 3-Wire DC

Plastic Face/ Threaded Nickel-Plated Brass or Stainless Steel Barrel



DC Micro Quick-Disconnect Style
8, 12, 18, and 30 mm



DC Pico Quick-Disconnect Style
8, 12, and 18 mm



DC Mini Quick-Disconnect Style
18 & 30 mm



DC Cable Style
8, 12, 18, and 30 mm



Pigtail Cable with Integral Micro QD Connector
8, 12, 18, and 30 mm

Features

- 3 wire operation
- 3 conductor PVC or PUR cable jacket (PVC standard)
- 3 or 4 pin connection for pico, micro, and mini connectors
- PVC and PUR cable available in 2, 5, and 10 m cable lengths (2 m standard)
- Pigtail cable in PVC with integral micro QD connector available in 0.2, 0.5, and 1.0 m cable lengths
- 10...30V DC
- Normally open or normally closed
- Reverse polarity, short circuit, overload, false pulse, and transient noise protection
- cULus Listed and CE Marked for all applicable directives

Specifications

Load Current	≤200 mA
Leakage Current	≤10 µA
Operating Voltage	10...30V DC
Voltage Drop	≤1.8V
Repeatability	≤5%
Hysteresis	≤10% typical
Protection Type	False pulse on power, transient noise, reverse polarity, short circuit, and overload
Certifications	cULus Listed and CE Marked for all applicable directives
Enclosure Type Rating	NEMA 1, 2, 3, 4, 6P, 12, 13, IP 67 (IEC 529)
Housing Material	Nickel-plated brass barrel, plastic face (PBT); Optional stainless steel 304 barrel, plastic face (PBT)
Connections	Cable (PVC/PUR): 2 m (6.5 ft), 5 m (16.4 ft), 10 m (32.8 ft) length, 4.4 mm (0.175 in.) diameter; 3-conductor #26 AWG PVC or PUR; Cable (Pigtail): 0.2 m (0.7 ft), 0.5 m (1.6 ft), 1 m (3.3 ft) length, Integral 4-pin micro QD Quick-Disconnect: 4-pin mini, 4-pin micro or 3-pin pico style
Status Indicator	Amber: Output energized, 360° visibility
Operating Temperature [C (F)], Min	-25...+70° (-13...+158°)
Shock	30 g, 11 ms
Vibration	55 Hz, 1 mm amplitude, 3 planes

Correction Factors

Target Material	Correction Factors
Steel	1.0
Stainless Steel	0.7...0.8
Brass	0.4...0.5
Aluminum	0.3...0.4
Copper	0.2...0.3

QD Cordsets and Accessories

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Inductive Proximity Sensors

872C/872CT WorldProx™ Short Barrel Extended Sensing 3-Wire DC

Plastic Face/ Threaded Nickel-Plated Brass or Stainless Steel Barrel

Product Selection

Barrel Diameter [mm]	Nominal Sensing Distance [mm (in.)]	Shielded	Output Configuration		Switching Frequency [Hz]	Cat. No.			
						Cable Style★	Mini QD Style★	Micro QD Style★	Pico QD Style★
8	3 (0,12)	Yes	N.O.	NPN	2500	872C-MH3NN8-P3	—	872C-MH3NN8-D4	872C-MH3NN8-P3
				PNP		872C-MH3NP8-E2	—	872C-MH3NP8-D4	872C-MH3NP8-P3
			N.C.	NPN		872C-MH3CN8-E2	—	872C-MH3CN8-D4	872C-MH3CN8-P3
				PNP		872C-MH3CP8-E2	—	872C-MH3CP8-D4	872C-MH3CP8-P3
	4 (0,16)	No	N.O.	NPN		872C-NH4NN8-E2	—	872C-NH4NN8-D4	872C-NH4NN8-P3
				PNP		872C-NH4NP8-E2	—	872C-NH4NP8-D4	872C-NH4NP8-P3
			N.C.	NPN		872C-NH4CN8-E2	—	872C-NH4CN8-D4	872C-NH4CN8-P3
				PNP		872C-NH4CP8-E2	—	872C-NH4CP8-D4	872C-NH4CP8-P3
12	4 (0,16)	Yes	N.O.	NPN	1300	872C-MH4NN12-E2	—	872C-MH4NN12-D4	872C-MH4NN12-P3
				PNP		872C-MH4NP12-E2	—	872C-MH4NP12-D4	872C-MH4NP12-P3
			N.C.	NPN		872C-MH4CN12-E2	—	872C-MH4CN12-D4	872C-MH4CN12-P3
				PNP		872C-MH4CP12-E2	—	872C-MH4CP12-D4	872C-MH4CP12-P3
	8 (0,32)	No	N.O.	NPN		872C-NH8NN12-E2	—	872C-NH8NN12-D4	872C-NH8NN12-P3
				PNP		872C-NH8NP12-E2	—	872C-NH8NP12-D4	872C-NH8NP12-P3
			N.C.	NPN		872C-NH8CN12-E2	—	872C-NH8CN12-D4	872C-NH8CN12-P3
				PNP		872C-NH8CP12-E2	—	872C-NH8CP12-D4	872C-NH8CP12-P3
18	8 (0,32)	Yes	N.O.	NPN	1500	872C-MH8NN18-E2	872C-MH8NN18-N4	872C-MH8NN18-D4	872C-MH8NN18-P3
				PNP		872C-MH8NP18-E2	872C-MH8NP18-N4	872C-MH8NP18-D4	872C-MH8NP18-P3
			N.C.	NPN		872C-MH8CN18-E2	872C-MH8CN18-N4	872C-MH8CN18-D4	872C-MH8CN18-P3
				PNP		872C-MH8CP18-E2	872C-MH8CP18-N4	872C-MH8CP18-D4	872C-MH8CP18-P3
	12 (0,47)	No	N.O.	NPN		872C-NH12NN18-E2	872C-NH12NN18-N4	872C-NH12NN18-D4	872C-NH12NN18-P3
				PNP		872C-NH12NP18-E2	872C-NH12NP18-N4	872C-NH12NP18-D4	872C-NH12NP18-P3
			N.C.	NPN		872C-NH12CN18-E2	872C-NH12CN18-N4	872C-NH12CN18-D4	872C-NH12CN18-P3
				PNP		872C-NH12CP18-E2	872C-NH12CP18-N4	872C-NH12CP18-D4	872C-NH12CP18-P3
30	15 (0,59)	Yes	N.O.	NPN	1000	872C-MH15NN30-E2	872C-MH15NN30-N4	872C-MH15NN30-D4	—
				PNP		872C-MH15NP30-E2	872C-MH15NP30-N4	872C-MH15NP30-D4	—
			N.C.	NPN		872C-MH15CN30-E2	872C-MH15CN30-N4	872C-MH15CN30-D4	—
				PNP		872C-MH15CP30-E2	872C-MH15CP30-N4	872C-MH15CP30-D4	—
	20 (0,79)	No	N.O.	NPN		872C-NH20NN30-E2	872C-NH20NN30-N4	872C-NH20NN30-D4	—
				PNP		872C-NH20NP30-E2	872C-NH20NP30-N4	872C-NH20NP30-D4	—
			N.C.	NPN		872C-NH20CN30-E2	872C-NH20CN30-N4	872C-NH20CN30-D4	—
				PNP		872C-NH20CP30-E2	872C-NH20CP30-N4	872C-NH20CP30-D4	—
Recommended mating cable, 2 m (6.5 ft). (See <i>On-Machine Connectivity</i> catalog for details and additional lengths).						—	889N-F4AFC-6F	889D-F4AC-2	889P-F3AB-2

★ Cat. no. listed is for a standard nickel-plated brass barrel. For a stainless steel barrel, add a **T** to the cat. no. **Example:** Cat. No. 872C-MH3NN8-P3 becomes Cat. No. 872CT-MH3NN8-P3.

Note: Preferred availability designation in table above applies to nickel-plated brass model only.

Cable Options

E2 at the end of cat. no. designates PVC cable 2 m in length. Replace **E2** with **E5** or **E10** for 5 or 10 m length.

For polyurethane cable replace **E2** with **J2**, **J5**, or **J10** for 2, 5, or 10 m length.

For PVC pigtail cable with integral micro QD style connector (4-pin DC male) replace **E2** with **FD02**, **FD05**, or **FD10** for 0.2, 0.5, or 1.0 m length.

Cable Length	PVC	PUR
2 m	E2	J2
5 m	E5	J5
10 m	E10	J10

Pigtail Cable Length	PVC
0.2 m	FD02
0.5 m	FD05
1.0 m	FD10



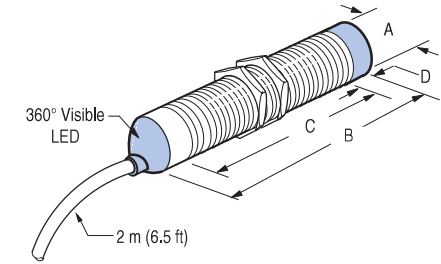
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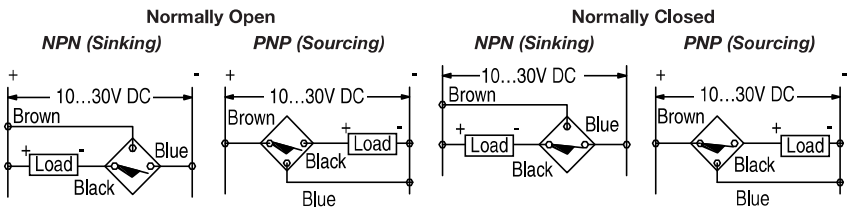


Inductive Proximity Sensors
872C/872CT WorldProx™ Short Barrel Extended Sensing 3-Wire DC
Plastic Face/ Threaded Nickel-Plated Brass or Stainless Steel Barrel

Approximate Dimensions—mm (in)
Cable Style

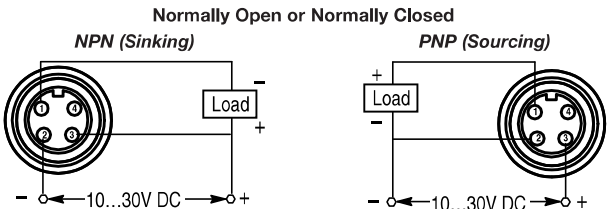
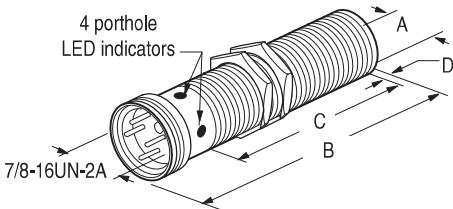


Wiring Diagrams



Thread Size	Barrel Type	Shielded	mm (inches)			
			A	B (max)	C (min)	D (max)
M8 x 1	Nickel-plated brass and stainless steel	Y	8.00 (0.31)	26.7 (1.05)	24.1 (0.95)	—
		N		30.7 (1.21)		4.10 (0.16)
M12 x 1		Y	12.0 (0.47)	34.8 (1.37)	—	
		N		42.9 (1.69)	8.10 (0.32)	
M18 x 1		Y	18.0 (0.71)	34.8 (1.37)	—	
		N		47.0 (1.85)	12.2 (0.48)	
M30 x 1	Nickel-plated brass	Y	30.0 (1.18)	34.8 (1.37)	—	
		N		47.0 (1.85)	12.2 (0.48)	
	Stainless steel	Y		37.3 (1.47)	—	
		N		49.5 (1.95)	12.2 (0.48)	

Mini QD Style



Thread Size	Barrel Type	Shielded	mm (inches)			
			A	B (max)	C (min)	D (max)
M18 x 1	Nickel-plated brass and stainless steel	Y	18.0 (0.71)	47.5 (1.87)	24.2 (0.95)	—
		N		59.7 (2.35)		12.2 (0.48)
M30 X 1.5	Nickel-plated brass	Y	30.0 (1.18)	47.5 (1.87)	26.4 (1.04)	—
		N		59.7 (2.35)		12.2 (0.48)
	Stainless steel	Y		50.8 (2.00)	34.3 (1.35)	—
		N		63.0 (2.48)		12.2 (0.48)



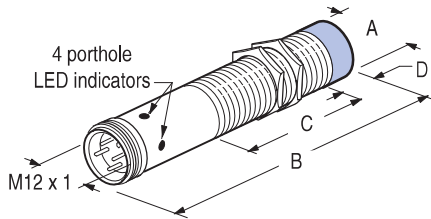
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872C/872CT WorldProx™ Short Barrel Extended Sensing 3-Wire DC

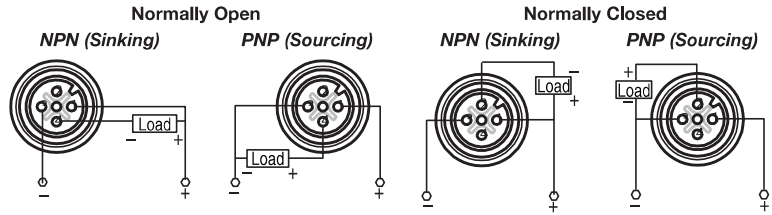
Plastic Face/ Threaded Nickel-Plated Brass or Stainless Steel Barrel

Approximate Dimensions—mm (in)

Micro QD Style

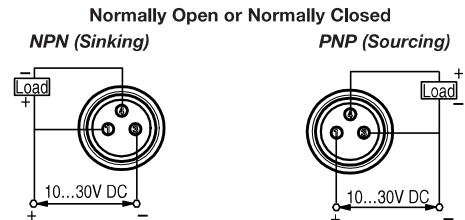
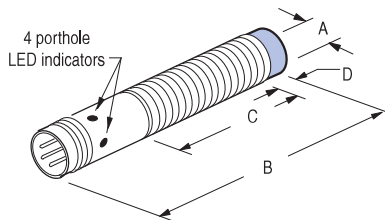


Wiring Diagrams



Thread Size	Barrel Type	Shielded	mm (inches)			
			A	B (max)	C (min)	D (max)
M8 x 1	Nickel-plated brass and stainless steel	Y	8.00 (0.31)	45.2 (1.78)	20.1 (0.79)	—
		N		49.3 (1.94)		4.10 (0.16)
M12 x 1		Y	12.0 (0.47)	48.3 (1.90)	27.4 (1.08)	—
		N		56.4 (2.22)		8.10 (0.32)
M18 x 1	Nickel-plated brass	Y	18.0 (0.71)	49.5 (1.95)	26.4 (1.04)	—
		N		61.7 (2.43)		12.2 (0.48)
	Stainless steel	Y		48.3 (1.90)	31.8 (1.25)	—
		N		60.5 (2.38)		12.2 (0.48)
M30 X 1.5	Nickel-plated brass and stainless steel	Y	30.0 (1.18)	50.8 (2.00)	31.8 (1.25)	—
		N		63.2 (2.49)		12.2 (0.48)

Pico QD Style



Thread Size	Barrel Type	Shielded	mm (inches)			
			A	B (max)	C (min)	D (max)
M8 x 1	Nickel-plated brass and stainless steel	Y	8.00 (0.31)	44.5 (1.75)	29.0 (1.14)	—
		N		48.5 (1.91)		4.10 (0.16)
Y		12.0 (0.47)	45.2 (1.78)	29.2 (1.15)	—	
N			53.3 (2.10)		8.10 (0.32)	
M18 x 1		Y	18.0 (0.71)	47.5 (1.87)	31.5 (1.24)	—
		N		59.7 (2.35)		12.2 (0.48)



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Inductive Proximity Sensors

872C WorldProx™ Long Range Sensing 3-Wire DC

Plastic Face/ Threaded Chrome-Plated Brass Barrel



872C DC Micro Style
6.5, 8, 12, 18, and 30 mm



872C DC Pico Style
6.5 & 8 mm

Features

- Up to three times the sensing range of standard range inductive proximity sensors
- 3- or 4-pin connection for pico and micro connectors
- 10...30V DC
- Normally open output
- IP67 enclosure rating
- Reverse polarity, short circuit, overload, false pulse, and transient noise protection
- cULus Listed and CE Marked for all applicable directives

IMPORTANT

Special mounting and installation considerations may be necessary due to the long-range sensing capabilities of these products. The Introduction and Application section of the catalog should be used as a guideline. Please refer to pages 2-12 and 2-14.

Specifications

Load Current, DC, Max.	≤200 mA
Leakage Current	≤0.1 mA
Operating voltage range	10...30V DC
Sensor Voltage Drop	≤2V
Repeatability	≤5%
Hysteresis	10% typical
Reverse Polarity Protection	Incorporated
Transient Noise Protection	Incorporated
Short Circuit Protection	Incorporated
Overload Protection	Incorporated
False Pulse Protection	Incorporated
Certifications	cULus Listed and CE Marked for all applicable directives
Enclosure Type Rating	NEMA 1, 2, 3, 4, 6P, 12, 13, IP67 (IEC 529) Chrome-plated brass barrel, plastic face (PBT)
Connections	Quick-disconnect: 4-pin micro style 3-pin pico style
LED	Amber: 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 Factors
Steel	1.0
Stainless Steel	0.6...0.8
Brass	0.3...0.6
Aluminum	0.3...0.5
Copper	0.2...0.5

QD Cordsets and Accessories

Description	Page No.
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Inductive Proximity Sensors

872C WorldProx™ Long Range Sensing 3-Wire DC

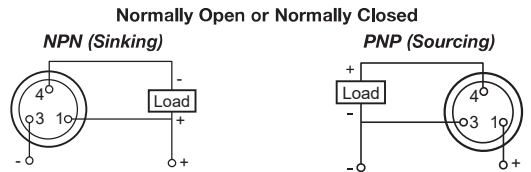
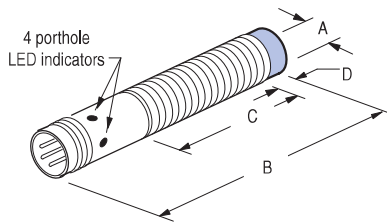
Plastic Face/ Threaded Chrome-Plated Brass Barrel

Product Selection

Barrel Diameter [mm]	Nominal Sensing Distance [mm (in.)]	Shielded	Output Configuration	Switching Frequency (Hz)	Cat. No.	
					Micro QD Style	Pico QD Style
6.5	3 (0.12)	Yes	N.O.	1000	872C-M3NN7-D4	872C-M3NN7-P3
					872C-M3NP7-D4	872C-M3NP7-P3
8	6 (0.23)	No	N.O.	500	872C-N6NN8-D4	872C-N6NN8-P3
					872C-N6NP8-D4	872C-N6NP8-P3
12	6 (0.23)	Yes	N.O.	800	872C-M6NN12-D4	—
					872C-M6NP12-D4	—
	10 (0.39)	No	N.O.	400	872C-N10NN12-D4	—
					872C-N10NP12-D4	—
18	12 (0.47)	Yes	N.O.	500	872C-M12NN18-D4	—
					872C-M12NP18-D4	—
	20 (0.79)	No	N.O.	200	872C-N20NN18-D4	—
					872C-N20NP18-D4	—
30	22 (0.86)	Yes	N.O.	200	872C-M22NN30-D4	—
					872C-M22NP30-D4	—
	40 (1.57)	No	N.O.	100	872C-N40NN30-D4	—
					872C-N40NP30-D4	—
Recommended standard QD cordset (-6F = 1.8 m (6 ft), -2 = 2 m (6.5 ft))					889D-F4AC-2	889P-F3AB-2

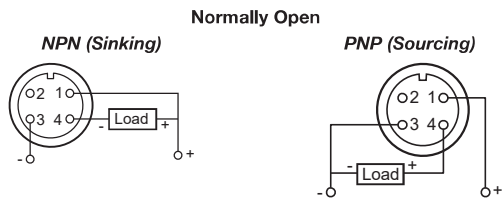
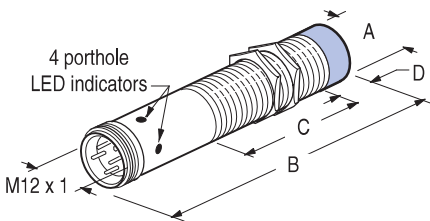
Approximate Dimensions—mm (in)

Pico QD Style



Thread Size	Smooth Diameter [mm]	Shielded	mm (inches)			
			A	B (max)	C (min)	D (max)
—	6.5	Y	6.5 (0.26)	60 (2.36)	—	—
M8 x 1	—	N	8.0 (0.31)	60 (2.36)	41.5 (1.63)	4 (0.15)

Micro QD Style



Thread Size	Smooth Diameter [mm]	Shielded	mm (inches)			
			A	B (max)	C (min)	D (max)
—	6.5	Y	6.5 (0.26)	66 (2.59)	—	—
M8 x 1	—	N	8 (0.31)	66 (2.59)	40 (1.57)	4 (0.15)
M12 x 1	—	Y	12 (0.47)	60 (2.36)	40 (1.57)	—
		N			35.3 (1.38)	5.7 (0.22)
M18 x 1	—	Y	18 (0.71)	63.5 (2.5)	42 (1.65)	—
		N			32 (1.25)	10 (0.39)
M30 X 1.5	—	Y	30 (1.18)	73.5 (2.89)	52 (2.04)	—
		N			42 (1.65)	10 (0.39)



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