

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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End Caps	2-220
Mounting Nuts	2-221...2-222



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Preferred availability cat. nos. are printed in **bold**.



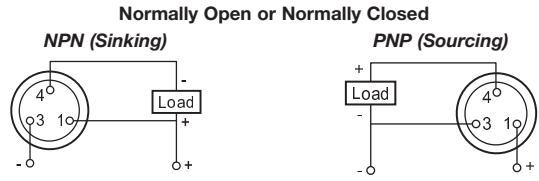
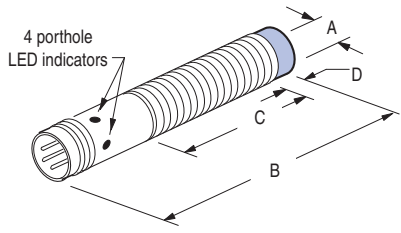
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**872C WorldProx™ Long Range Sensing 3-Wire DC**  
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Product Selection

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.	NPN	1000	872C-M3NN7-D4	872C-M3NN7-P3
				PNP		872C-M3NP7-D4	872C-M3NP7-P3
8	6 (0.23)	No	N.O.	NPN	500	872C-N6NN8-D4	872C-N6NN8-P3
				PNP		872C-N6NP8-D4	872C-N6NP8-P3
12	6 (0.23)	Yes	N.O.	NPN	800	872C-M6NN12-D4	—
				PNP		872C-M6NP12-D4	—
	10 (0.39)	No	N.O.	NPN	400	872C-N10NN12-D4	—
				PNP		872C-N10NP12-D4	—
18	12 (0.47)	Yes	N.O.	NPN	500	872C-M12NN18-D4	—
				PNP		872C-M12NP18-D4	—
	20 (0.79)	No	N.O.	NPN	200	872C-N20NN18-D4	—
				PNP		872C-N20NP18-D4	—
30	22 (0.86)	Yes	N.O.	NPN	200	872C-M22NN30-D4	—
				PNP		872C-M22NP30-D4	—
	40 (1.57)	No	N.O.	NPN	100	872C-N40NN30-D4	—
				PNP		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

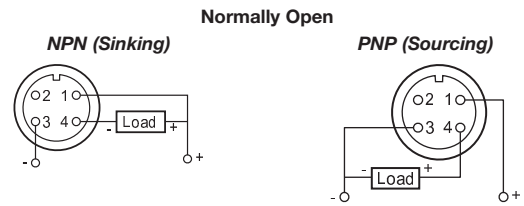
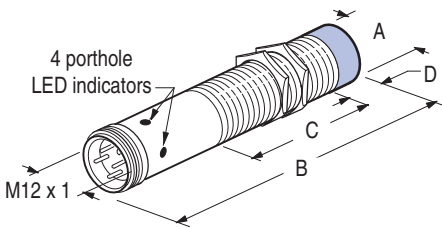
Approximate Dimensions—mm (in)

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)
		Y			40 (1.57)	—
M12 x 1	—	N	12 (0.47)	60 (2.36)	35.3 (1.38)	5.7 (0.22)
		Y			42 (1.65)	—
M18 x 1	—	N	18 (0.71)	63.5 (2.5)	32 (1.25)	10 (0.39)
		Y			52 (2.04)	—
M30 X 1.5	—	N	30 (1.18)	73.5 (2.89)	42 (1.65)	10 (0.39)
		Y			—	—

