

872C WorldProx™ Short Barrel 3-Wire DC

Plastic Face/Threaded Nickel-Plated Brass Barrel



872C DC Cable Style
12, 18, 30mm



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



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



872C DC Pico
Quick-Disconnect Style
12, 18mm



Specifications

Load Current	≤200mA
Leakage Current	≤10μA
Operating Voltage	10–30V DC
Voltage Drop	≤1.64V
Repeatability	≤2%
Hysteresis	≤10% typical
False Pulse Protection	Incorporated
Transient Noise Protection	Incorporated
Reverse Polarity Protection	Incorporated
Short Circuit Protection	Incorporated
Overload Protection	Incorporated
Approvals	UL listed, c-UL certified for Canada, and CE marked for all applicable directives
Enclosure	NEMA 1, 2, 3, 4, 6P, 12, 13 IP67 (IEC 529) Nickel plated brass barrel, plastic face
Connections	Cable: 2m (6.5ft) length, 4.4mm (0.175in) diameter 3-conductor #26AWG PVC Quick-Disconnect: 4-pin mini style 4-pin micro style 3-pin pico 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	0.7–0.8
Brass	0.4–0.5
Aluminum	0.3–0.4
Copper	0.2–0.3

Features

- 3-wire operation
- 3-conductor 3-pin or 4-pin connection
- 10–30V DC
- Normally open or normally closed output
- Reverse polarity, short circuit, overload, false pulse and transient noise protection
- UL listed, c-UL listed, and CE marked for all applicable directives

Inductive Proximity Sensors
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Product Selection

Barrel Dia.	Nominal Sensing Distance mm (inches)	Shielded	Output Configuration		Switching Frequency (Hz)	Catalog Number			
						Cable Style	Mini QD Style	Micro QD Style	Pico QD Style
12mm	3 (0.12)	Y	N.O.	NPN	2000	872C-DH3NN12-E2	—	872C-DH3NN12-D4	872C-DH3NN12-P3
				PNP		872C-DH3NP12-E2	—	872C-DH3NP12-D4	872C-DH3NP12-P3
		N		NPN		872C-DH4NN12-E2	—	872C-DH4NN12-D4	872C-DH4NN12-P3
				PNP		872C-DH4NP12-E2	—	872C-DH4NP12-D4	872C-DH4NP12-P3
	4 (0.16)	Y	N.C.	NPN		872C-DH3CN12-E2	—	872C-DH3CN12-D4	872C-DH3CN12-P3
				PNP		872C-DH3CP12-E2	—	872C-DH3CP12-D4	872C-DH3CP12-P3
		N		NPN		872C-DH4CN12-E2	—	872C-DH4CN12-D4	872C-DH4CN12-P3
				PNP		872C-DH4CP12-E2	—	872C-DH4CP12-D4	872C-DH4CP12-P3
18mm	5 (0.20)	Y	N.O.	NPN	1000	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		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
	8 (0.31)	Y	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-DH5CP18-P3
		N		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
30mm	10 (0.39)	Y	N.O.	NPN	500	872C-DH10NN30-E2	872C-DH10NN30-N4	872C-DH10NN30-D4	—
				PNP		872C-DH10NP30-E2	872C-DH10NP30-N4	872C-DH10NP30-D4	—
		N		NPN		872C-DH15NN30-E2	872C-DH15NN30-N4	872C-DH15NN30-D4	—
				PNP		872C-DH15NP30-E2	872C-DH15NP30-N4	872C-DH15NP30-D4	—
	15 (0.59)	Y	N.C.	NPN		872C-DH10CN30-E2	872C-DH10CN30-N4	872C-DH10CN30-D4	—
				PNP		872C-DH10CP30-E2	872C-DH10CP30-N4	872C-DH10CP30-D4	—
		N		NPN		872C-DH15CN30-E2	872C-DH15CN30-N4	872C-DH15CN30-D4	—
				PNP		872C-DH15CP30-E2	872C-DH15CP30-N4	872C-DH15CP30-D4	—
Recommended Standard QD Cordset (-6F = 1.8m (6ft), -2 = 2m (6.5ft))						889N-F4AFC-6F	889D-F4AC-2	889P-F3AB-2	

QD Cordsets and Accessories

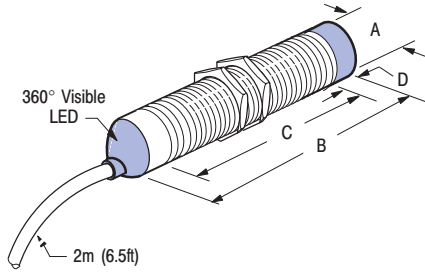
Description	Page Number
Other Cordsets Available	R8-2
Terminal Chambers	R8-2
Mounting Brackets	R2-196 - R2-200
End Caps	R2-206
Mounting Nuts	R2-207 - R2-208

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Dimensions—mm (inches)

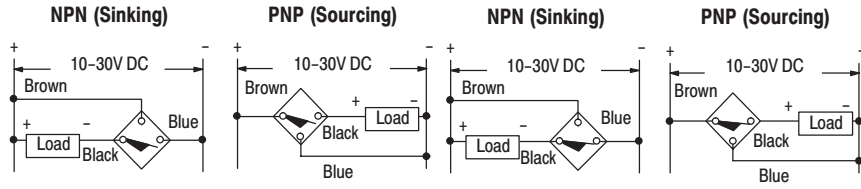
Cable Style



Wiring Diagrams

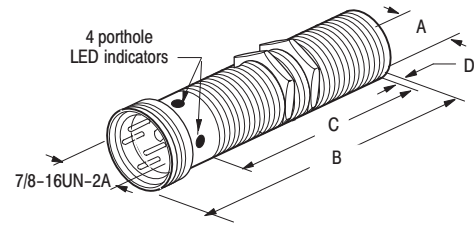
Normally Open

Normally Closed

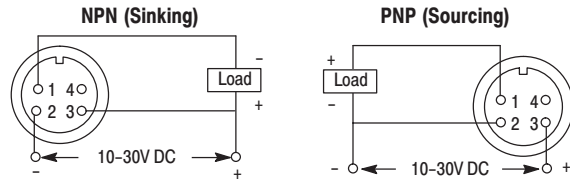


Thread Size	Shielded	mm (inches)			
		A	B (max)	C (min)	D (max)
M12 X 1	Y	12 (0.47)	34.8 (1.37)	31.8 (1.25)	—
	N		42.7 (1.68)		7.9 (0.31)
M18 X 1	Y	18 (0.71)	34.8 (1.37)		—
	N		42.7 (1.68)		12.2 (0.48)
M30 X 1.5	Y	30 (1.18)	34.8 (1.37)	—	
	N		42.7 (1.68)	12.2 (0.48)	

Mini QD Style



Normally Open or Normally Closed

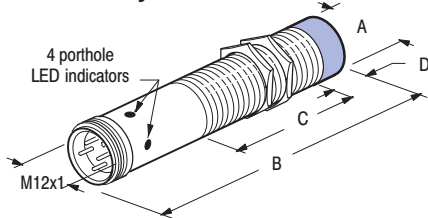


Thread Size	Shielded	mm (inches)			
		A	B (max)	C (min)	D (max)
M18 X 1	Y	18.0 (0.71)	47.5 (1.87)	26.7 (1.05)	—
	N		59.7 (2.35)		12.2 (0.48)
M30 X 1.5	Y	30.0 (1.18)	47.5 (1.87)		—
	N		59.7 (2.35)		12.2 (0.48)

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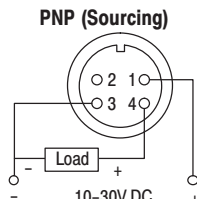
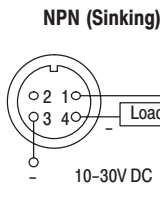
Dimensions—mm (inches)

Micro QD Style

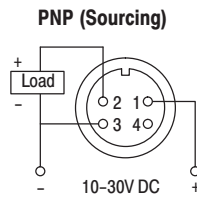
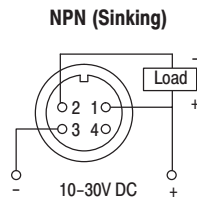


Wiring Diagrams

Normally Open

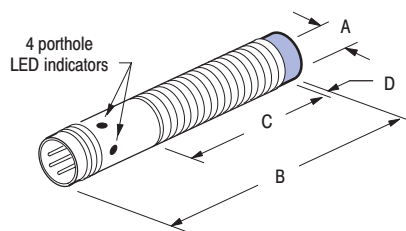


Normally Closed

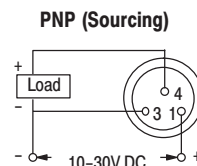
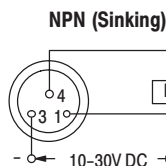


Thread Size	Shielded	mm (inches)			
		A	B (max)	C (min)	D (max)
M12 X 1	Y	12.0 (0.47)	47.5 (1.87)	27.4 (1.08)	—
	N		55.4 (2.18)		7.9 (0.31)
M18 X 1	Y	18.0 (0.71)	47.5 (1.87)		—
	N		59.7 (2.35)		12.2 (0.48)
M30 X 1.5	Y	30.0 (1.18)	47.5 (1.87)	31.8 (1.25)	—
	N		59.7 (2.35)		12.2 (0.48)

Pico QD Style



Normally Open or Normally Closed



Thread Size	Shielded	mm (inches)			
		A	B (max)	C (min)	D (max)
M12 X 1	Y	12.0 (0.47)	44.9 (1.77)	28.95 (1.14)	—
	N		52.8 (2.07)		7.9 (0.31)
M18 X 1	Y	18.0 (0.71)	44.9 (1.77)		—
	N		52.8 (2.07)		12.2 (0.48)