

871TM 3-Wire DC Extended Sensing

Stainless Steel Face/Threaded Stainless Steel Barrel



871TM DC Micro
Quick-Disconnect Style
12mm
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871TM DC Micro
Quick-Disconnect Style
18mm
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871TM DC Micro
Quick-Disconnect Style
30mm
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**Specifications**

Load Current	≤200mA
Capacitive Load	≤1μF
Leakage Current	≤0.1mA
Operating Voltage	10–30V DC
Voltage Drop	≤2.0V DC at 200mA
Repeatability	≤5% at constant temperature
Hysteresis	10% typical
False Pulse Protection	Incorporated
Transient Noise Protection	Incorporated
Reverse Polarity Protection	Incorporated
Short Circuit Protection	Incorporated (trigger at 340mA typical)
Overload Protection	Incorporated
Approvals	CE marked for all applicable directives
Enclosure	IP67
Connections	Quick-Disconnect: 4-pin micro style
LED	Yellow: Output energized/360° LED 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 (1mm thick)	0.1
Brass	1.2
Aluminum	1.0
Copper	0.8

Features

- 3-wire operation
- 3-conductor, 4-pin connection
- 10–30V DC
- Short circuit, overload, false pulse, reverse polarity, and transient noise protection
- Normally open or normally closed output
- Equal sensing for both steel and aluminum
- CE marked for all applicable directives

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Selection Guide

Barrel Dia.	Nominal Sensing Distance—mm (in)	Shielded	Output Configuration		Max Switching Frequency (Hz)	Catalog Number	
						PVC Cable Style	Micro QD Style
12mm	6 (0.23)	Y	N.O.	NPN	400	871TM-M6NN12-A2	871TM-M6NN12-D4
				PNP		871TM-M6NP12-A2	871TM-M6NP12-D4
		N		NPN		871TM-N10NN12-A2	871TM-N10NN12-D4
				PNP		871TM-N10NP12-A2	871TM-N10NP12-D4
	10 (0.39)	Y	N.C.	NPN		871TM-M6CN12-A2	871TM-M6CN12-D4
				PNP		871TM-M6CP12-A2	871TM-M6CP12-D4
		N		NPN		871TM-N10CN12-A2	871TM-N10CN12-D4
				PNP		871TM-N10CP12-A2	871TM-N10CP12-D4
18mm	10 (0.39)	Y	N.O.	NPN	200	871TM-M10NN18-A2	871TM-M10NN18-D4
				PNP		871TM-M10NP18-A2	871TM-M10NP18-D4
		N		NPN		871TM-N20NN18-A2	871TM-N20NN18-D4
				PNP		871TM-N20NP18-A2	871TM-N20NP18-D4
	20 (0.79)	Y	N.C.	NPN		871TM-M10CN18-A2	871TM-M10CN18-D4
				PNP		871TM-M10CP18-A2	871TM-M10CP18-D4
		N		NPN		871TM-N20CN18-A2	871TM-N20CN18-D4
				PNP		871TM-N20CP18-A2	871TM-N20CP18-D4
30mm	20 (0.79)	Y	N.O.	NPN	80	871TM-M20NN30-A2	871TM-M20NN30-D4
				PNP		871TM-M20NP30-A2	871TM-M20NP30-D4
		N		NPN		871TM-N40NN30-A2	871TM-N40NN30-D4
				PNP		871TM-N40NP30-A2	871TM-N40NP30-D4
	40 (1.57)	Y	N.C.	NPN		871TM-M20CN30-A2	871TM-M20CN30-D4
				PNP		871TM-M20CP30-A2	871TM-M20CP30-D4
		N		NPN		871TM-N40CN30-A2	871TM-N40CN30-D4
				PNP		871TM-N40CP30-A2	871TM-N40CP30-D4
Recommended Standard QD Cordset (-2 = 2m (6.5ft))						889D-F4AC-2	889D-F4AC-2

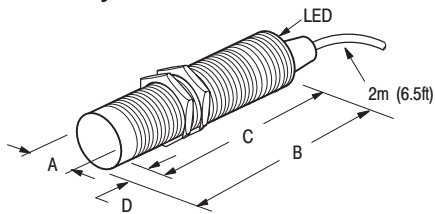
QD Cordsets and Accessories

Description	Page Number
Other Cordsets Available	8-8, 8-68
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Mounting Brackets	2-196 - 2-200
End Caps	2-205, 2-206
Mounting Nuts	2-207 - 2-208

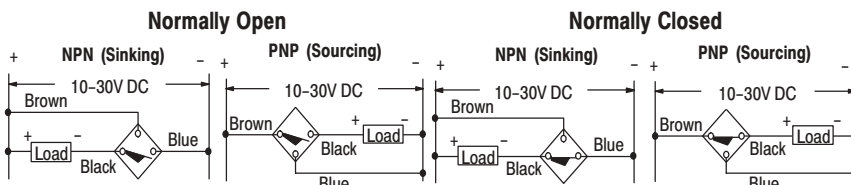
Inductive Proximity Sensors
871TM 3-Wire DC Extended Sensing
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Dimensions—mm (inches)

Cable Style

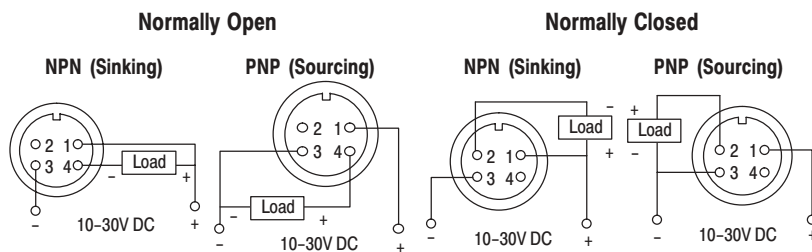
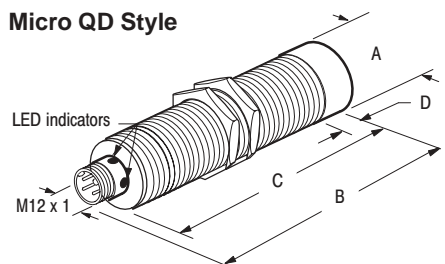


Wiring Diagrams



Thread Size	Shielded	mm (inches)					
		A	B	C	D		
M12 X 1	Y	12.0 (0.47)	50 (1.96)	50 (1.96)	—		
	N			45 (1.77)	5 (0.19)		
M18 X 1	Y			18.0 (0.71)	50 (1.96)	50 (1.96)	—
	N			43 (1.69)	7 (0.27)		
M30 X 1.5	Y	30.0 (1.18)	50 (1.96)	50 (1.96)	—		
	N		40 (1.57)	10 (0.39)			

Micro QD Style



Thread Size	Shielded	mm (inches)					
		A	B	C	D		
M12 X 1	Y	12.0 (0.47)	60 (2.36)	41 (1.61)	—		
	N			36 (1.42)	5 (0.20)		
M18 X 1	Y			18.0 (0.71)	63.5 (2.5)	42.5 (1.67)	—
	N			35.5 (1.40)	7 (0.28)		
M30 X 1.5	Y	30.0 (1.18)	63.5 (2.5)	42.5 (1.67)	—		
	N		32.5 (1.28)	10 (0.39)			