

**871TM 3-Wire DC Extended Sensing**

Stainless Steel Face/Threaded Stainless Steel Barrel



871TM DC Micro  
Quick-Disconnect Style  
12mm



871TM DC Micro  
Quick-Disconnect Style  
18mm



871TM DC Micro  
Quick-Disconnect Style  
30mm

**Specifications**

<b>Load Current</b>	≤200mA
<b>Capacitive Load</b>	≤1μF
<b>Leakage Current</b>	≤0.1mA
<b>Operating Voltage</b>	10–30V DC
<b>Voltage Drop</b>	≤2.0V DC at 200mA
<b>Repeatability</b>	≤5% at constant temperature
<b>Hysteresis</b>	10% typical
<b>False Pulse Protection</b>	Incorporated
<b>Transient Noise Protection</b>	Incorporated
<b>Reverse Polarity Protection</b>	Incorporated
<b>Short Circuit Protection</b>	Incorporated (trigger at 340mA typical)
<b>Overload Protection</b>	Incorporated
<b>Approvals</b>	CE marked for all applicable directives and cULus certified
<b>Enclosure</b>	IP67
<b>Connections</b>	Quick-Disconnect: 4-pin micro style
<b>LED</b>	Yellow: Output energized/360° LED visibility
<b>Operating Temperature</b>	–25°C to +70°C (–13°F to +158°F)
<b>Shock</b>	30g, 11ms
<b>Vibration</b>	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

**Note:** Due to the extended sensing capabilities of these products, special mounting/installation considerations may be necessary, please refer to publication 871TM–UM001A–EN–P.

## 871TM 3-Wire DC Extended Sensing

Stainless Steel Face/Threaded Stainless Steel Barrel

### Product Selection

Barrel Dia.	Nominal Sensing Distance—mm (in)	Shielded	Output Configuration		Max Switching Frequency (Hz)	Catalog Number	
						PUR 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	
	6 (0.23)	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	
	10 (0.39)	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	
	20 (0.79)	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

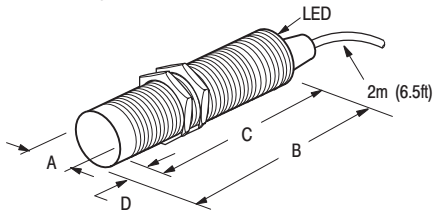
### QD Cordsets and Accessories

Description	Page Number
Other Cordsets Available	R8-2
Terminal Chambers	R8-2
Mounting Brackets	R2-196 - R2-200
End Caps	R2-205, R2-206
Mounting Nuts	R2-207 - R2-208

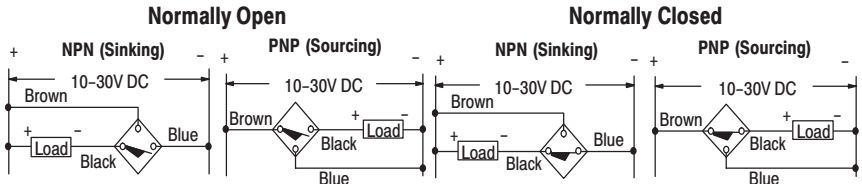
Inductive Proximity Sensors  
**871TM 3-Wire DC Extended Sensing**  
 Stainless Steel Face/Threaded Stainless Steel Barrel

**Dimensions—mm (inches)**

**Cable Style**

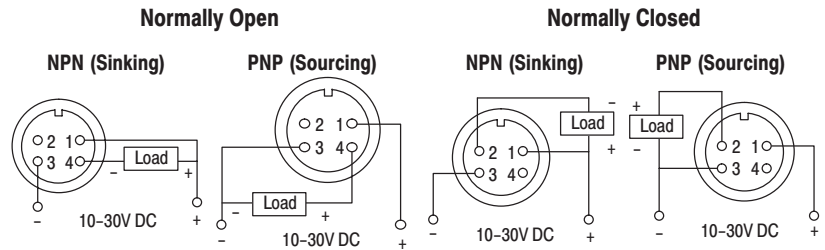
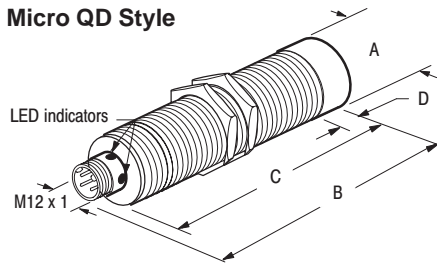


**Wiring Diagrams**



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)	—
	N			43 (1.69)	7 (0.27)
M30 X 1.5	Y	30.0 (1.18)		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)		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			63.5 (2.5)	32.5 (1.28)	10 (0.39)