

871TM 2-Wire DC

Stainless Steel Face/Threaded Short Stainless Steel Barrel



871TM DC Cable Style
12, 18, 30mm
page 2-29



871TM DC Mini
Quick-Disconnect Style
12, 18, 30mm
page 2-29



871TM DC Micro
Quick-Disconnect Style
12, 18, 30mm
page 2-29



Features

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

Specifications

Load Current	≤25mA
Minimum Load Current	2mA
Leakage Current	≤0.9mA
Operating Voltage	10–30V DC
Voltage Drop	≤8V
Repeatability	10% typical
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, CSA certified, and CE marked for all applicable directives
Enclosure	NEMA 1, 2, 3, 3R, 4, 4X, 6P, 12, 13; IP67 (IEC 529), 1200psi (8270kPa) washdown Stainless steel face and barrel
Connections	Cable: 2m (6.5ft) length A2—2-conductor #22 AWG PVC C2—2-conductor #22 AWG ToughLink™ H2—2-conductor #18 AWG ToughLink™ Quick-Disconnect: 4-pin mini style 4-pin micro style
LED	Red: Output Energized
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	0.9–1.0
Brass	0.3–0.5
Aluminum	0.1–0.4
Aluminum ≤0.020 Thick	0.9–1.1
Copper	0.4–0.6

AB Drives

Product Selection

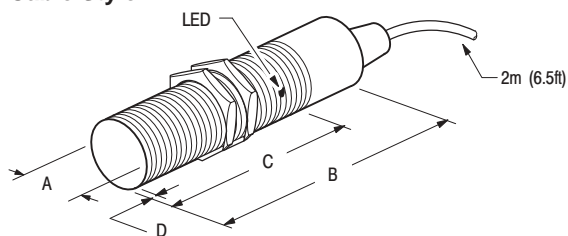
Barrel Dia.	Nominal Sensing Distance mm (in)	Shielded	Output Configuration	Switching Frequency (Hz)	Catalog Number			
					PVC Cable	ToughLink™ Cable	Mini QD Style	Micro QD Style
12mm	2 (0.08)	Y	N.O.	75	871TM-DH2NE12-A2	871TM-DH2NE12-C2	871TM-DH2NE12-N4	871TM-DH2NE12-D4
	4 (0.16)	N			871TM-DH4NE12-A2	871TM-DH4NE12-C2	871TM-DH4NE12-N4	871TM-DH4NE12-D4
	2 (0.08)	Y	N.C.	70	871TM-DH2CE12-A2	871TM-DH2CE12-C2	871TM-DH2CE12-N4	871TM-DH2CE12-D4
	4 (0.16)	N			871TM-DH4CE12-A2	871TM-DH4CE12-C2	871TM-DH4CE12-N4	871TM-DH4CE12-D4
18mm	5 (0.20)	Y	N.O.	60	871TM-DH5NE18-A2	871TM-DH5NE18-H2	871TM-DH5NE18-N4	871TM-DH5NE18-D4
	8 (0.31)	N			871TM-DH8NE18-A2	871TM-DH8NE18-H2	871TM-DH8NE18-N4	871TM-DH8NE18-D4
	5 (0.20)	Y	N.C.	40	871TM-DH5CE18-A2	871TM-DH5CE18-H2	871TM-DH5CE18-N4	871TM-DH5CE18-D4
	8 (0.31)	N			871TM-DH8CE18-A2	871TM-DH8CE18-H2	871TM-DH8CE18-N4	871TM-DH8CE18-D4
30mm	10 (0.39)	Y	N.O.	40	871TM-DH10NE30-A2	871TM-DH10NE30-H2	871TM-DH10NE30-N4	871TM-DH10NE30-D4
	15 (0.59)	N			871TM-DH15NE30-A2	871TM-DH15NE30-H2	871TM-DH15NE30-N4	871TM-DH15NE30-D4
	10 (0.39)	Y	N.C.	30	871TM-DH10CE30-A2	871TM-DH10CE30-H2	871TM-DH10CE30-N4	871TM-DH10CE30-D4
	15 (0.59)	N			871TM-DH15CE30-A2	871TM-DH15CE30-H2	871TM-DH15CE30-N4	871TM-DH15CE30-D4
Recommended Standard QD Cordset (-6F = 1.8m (6ft), -2 = 2m (6.5ft))							889N-F4AFC-6F	889D-F4AC-2

QD Cordsets and Accessories

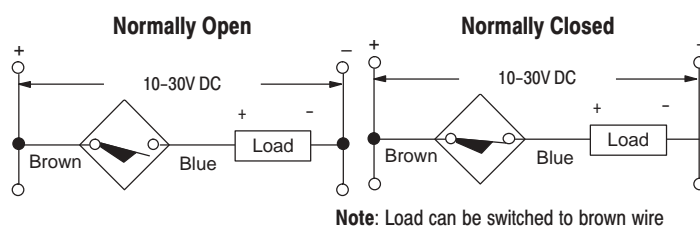
Description	Page Number
Other Cordsets Available	7-8, 7-68
Terminal Chambers	7-20
Mounting Brackets	2-186 - 2-190
End Caps	2-195, 2-196
Mounting Nuts	2-197 - 2-198

Dimensions—mm (inches)

Cable Style



Wiring Diagrams



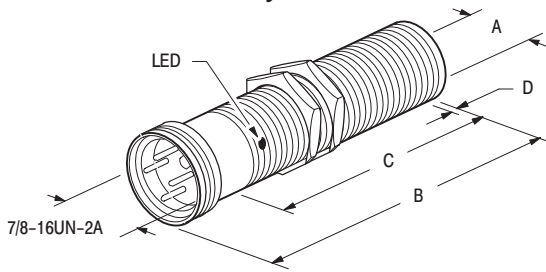
Thread Size	Shielded	mm (inches)			
		A	B	C	D
M12 X 1	Y	12.0 (0.47)	49.8 (1.96)	26.4 (1.04)	2.5 (0.10)
	N			19.5 (0.77)	9.4 (0.37)
M18 X 1	Y	18.0 (0.71)	55.4 (2.18)	41.7 (1.64)	2.5 (0.10)
	N				14.5 (0.57)
M30 X 1.5	Y	30.0 (1.18)	57.9 (2.28)	41.9 (1.65)	2.5 (0.10)
	N			39.4 (1.55)	18.0 (0.71)

871TM 2-Wire DC

Stainless Steel Face/Threaded Short Stainless Steel Barrel

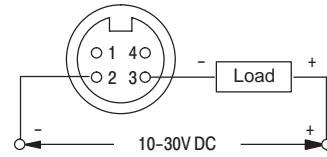
Dimensions—mm (inches) (continued)

Mini Quick-Disconnect Style



Wiring Diagrams

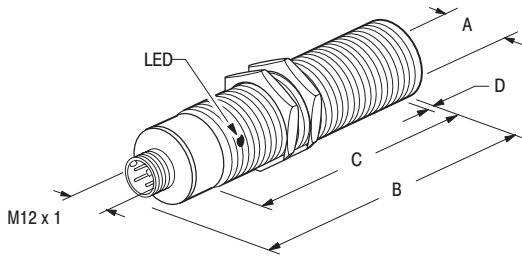
Normally Open or Normally Closed



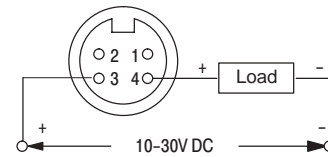
Note: Load can be switched to pin 2.

Thread Size	Shielded	mm (inches)			
		A	B	C	D
M12 X 1	Y	12.0 (0.47)	63.5 (2.50)	25.4 (1.00)	2.5 (0.10)
	N			18.5 (0.73)	9.4 (0.37)
M18 X 1	Y	18.0 (0.71)	56.1 (2.21)	35.1 (1.38)	2.5 (0.10)
	N			29.2 (1.15)	14.5 (0.57)
M30 X 1.5	Y	30.0 (1.18)	68.1 (2.68)	41.9 (1.65)	2.5 (0.10)
	N			39.4 (1.55)	18.0 (0.71)

Micro Quick-Disconnect Style



Normally Open or Normally Closed



Note: Load can be switched to pin 3.

Thread Size	Shielded	mm (inches)			
		A	B	C	D
M12 X 1	Y	12.0 (0.47)	61.0 (2.40)	26.4 (1.04)	2.5 (0.10)
	N			19.6 (0.77)	9.4 (0.37)
M18 X 1	Y	18.0 (0.71)	65.0 (2.56)	41.7 (1.64)	2.5 (0.10)
	N			41.7 (1.64)	14.5 (0.57)
M30 X 1.5	Y	30.0 (1.18)	66.3 (2.61)	41.9 (1.65)	2.5 (0.10)
	N			39.4 (1.55)	18.0 (0.71)