

871TM 2-Wire AC/DC PLC Interfacer**Stainless Steel Face/Threaded Short Stainless Steel Barrel**

871TM AC/DC Cable Style
12, 18, 30 mm



871TM AC/DC Mini
Quick-Disconnect Style
12, 18, 30 mm



871TM AC/DC Micro
Quick-Disconnect Style
12, 18, 30 mm



871TM AC/DC EAC Micro
Quick-Disconnect Style
12 mm

Specifications

Load Current	2...25 mA
Leakage Current	≤0.9 mA at 24V DC ≤1.7 mA at 20...120V AC/DC; ≤2.5 mA at 121...250V AC/DC
Operating Voltage	20...250V AC/DC
Voltage Drop	≤8V at 25 mA DC ≤10V at 25 mA AC
Repeatability	10% typical
Hysteresis	10% typical
False Pulse Protection	Incorporated
Transient Noise Protection	Incorporated
Radio Frequency Protection	10V per meter Frequency range 20...1000MHz
Certifications	UL Listed, CSA Certified and CE Marked for all applicable directives
Enclosure	NEMA 1, 2, 3, 3R, 4, 4X, 6, 6P, 12, 13, IP67 (IEC 529) all models; 1200 psi (8270 kPa) washdown; stainless steel face and barrel; ToughLink™ and micro connector versions are also rated IP69K (IEC 529)
Connections	Cable: 2 m (6.5 ft) length A2—2-conductor #22 AWG PVC C2—2-conductor #22 AWG ToughLink H2—2-conductor #18 AWG ToughLink Quick-Disconnect: 3-pin mini style 3-pin micro style 4-pin EAC micro style
LED	Red: Output energized
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 Factor
Steel	1.0
Stainless Steel	0.8...1.0
Brass	0.4...0.7
Aluminum	0.4...0.7
Copper	0.2...0.5

Features

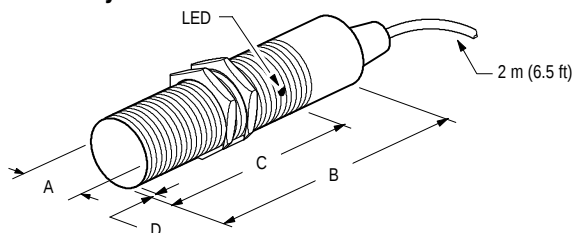
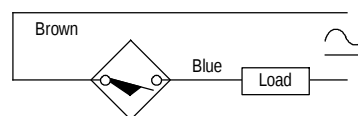
- Designed for low load current PLC, I/O, and PC applications
- 2-wire operation
- 2-conductor, 3-pin or 4-pin connection
- 20...250V AC/DC
- Normally open or normally closed output
- False pulse, transient noise, and radio frequency protection
- UL Listed, CSA Certified, and CE Marked for all applicable directives

871TM 2-Wire AC/DC PLC Interfacer**Stainless Steel Face/Threaded Short Stainless Steel Barrel****Product Selection**

Barrel Dia. [mm]	Nominal Sensing Distance [mm (in.)]	Shield	Output Config.	Switching Freq. [Hz]	Cat. No.				
					PVC Cable	ToughLink™ Cable	Mini QD Style	Micro QD Style	EAC Micro QD Style
12	2 (0.08)	Yes	N.O.	75	871TM-BH2N12-A2	871TM-BH2N12-C2	871TM-BH2N12-N3	871TM-BH2N12-R3	871TM-BH2N12-B4
	4 (0.16)	No		35	871TM-BH4N12-A2	871TM-BH4N12-C2	871TM-BH4N12-N3	871TM-BH4N12-R3	—
	2 (0.08)	Yes	N.C.	75	—	—	—	871TM-BH2C12-R3	—
	4 (0.16)	No		35	—	—	—	871TM-BH4C12-R3	—
18	5 (0.20)	Yes	N.O.	65	871TM-BH5N18-A2	871TM-BH5N18-H2	871TM-BH5N18-N3	871TM-BH5N18-R3	—
	8 (0.31)	No		30	871TM-BH8N18-A2	871TM-BH8N18-H2	871TM-BH8N18-N3	871TM-BH8N18-R3	—
	5 (0.20)	Yes	N.C.	65	—	—	—	871TM-BH5C18-R3	—
	8 (0.31)	No		30	—	—	—	871TM-BH8C18-R3	—
30	10 (0.39)	Yes	N.O.	45	871TM-BH10N30-A2	871TM-BH10N30-H2	871TM-BH10N30-N3	871TM-BH10N30-R3	—
	15 (0.59)	No		20	871TM-BH15N30-A2	871TM-BH15N30-H2	871TM-BH15N30-N3	871TM-BH15N30-R3	—
	10 (0.39)	Yes	N.C.	45	871TM-BH10C30-A2	871TM-BH10C30-H2	871TM-BH10C30-N3	871TM-BH10C30-R3	—
	15 (0.59)	No		20	871TM-BH15C30-A2	871TM-BH15C30-H2	871TM-BH15C30-N3	871TM-BH15C30-R3	—
Recommended Standard QD Cordset (-6F = 1.8 m (6 ft), -2 = 2 m (6.5 ft))							889N-F3AFC-6F	889R-F3ECA-2	889B-F3AC-2

QD Cordsets and Accessories

Description	Page Number
Other Cordsets Available	8-2
Terminal Chambers	8-2
Mounting Brackets	2-210...2-214
End Caps	2-219, 2-220
Mounting Nuts	2-221...2-222

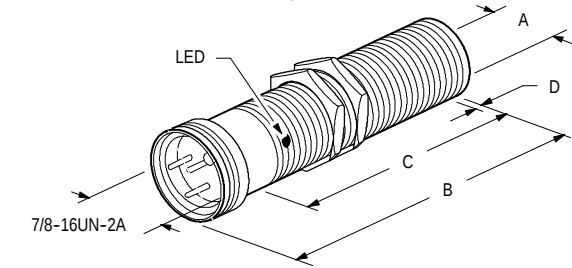
Approximate Dimensions [mm (in.)]**Cable Style****Wiring Diagrams****Normally Open**

Note 1: Attach housing to ground.
Note 2: Load can be switched to brown wire.

Thread Size	Shielded	[mm (in.)]			
		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)

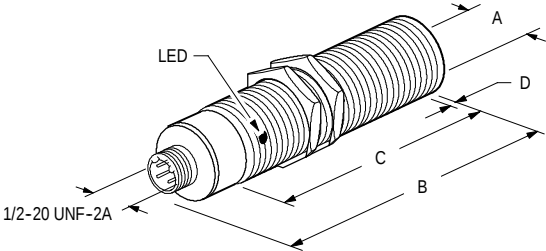
Inductive Proximity Sensors
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Approximate Dimensions [mm (in.)] (continued)
Mini Quick-Disconnect Style



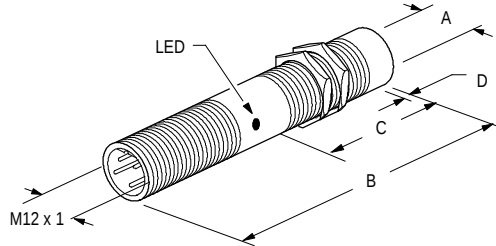
Thread Size	Shielded	[mm (in.)]			
		A	B	C	D
M12 X 1	Y	12.0 (0.47)	63.5 (2.50)	25.4 (1.00)	2.5 (0.10)
	N			18.5 (0.73)	9.4 (0.37)
M18 X 1	Y	18.0 (0.71)	56.1 (2.21)	35.1 (1.38)	2.5 (0.10)
	N			29.2 (1.15)	14.5 (0.57)
M30 X 1.5	Y	30.0 (1.18)	68.1 (2.68)	41.9 (1.65)	2.5 (0.10)
	N			39.4 (1.55)	18.0 (0.71)

Micro Quick-Disconnect Style



Thread Size	Shielded	[mm (in.)]			
		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				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)

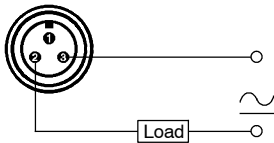
EAC Micro Quick-Disconnect Style



Thread Size	Shielded	[mm (in.)]			
		A	B	C	D
M12 X 1	Y	12.0 (0.47)	61.0 (2.40)	26.4 (1.04)	2.5 (0.10)

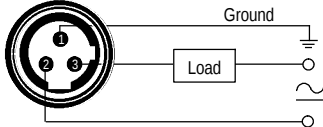
Wiring Diagrams

Normally Open



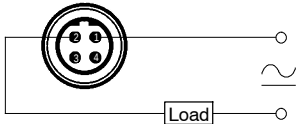
Note 1: Attach housing to ground.
Note 2: Load can be switched to pin 3.

Normally Open



Note 1: Attach housing to ground.
Note 2: Load can be switched to pin 2.

Normally Open



Note 1: No ground pin. Attach housing to ground.
Note 2: Load can be switched to pin 2.