



871F AC/DC Cable Style

871F AC/DC Mini  
Quick-Disconnect Style871F AC/DC Micro  
Quick-Disconnect Style

## Specifications

Load Current, Max.	100 mA
Load Current, Min.	5 mA
Leakage Current	≤1.7 mA @ 120V; ≤2.0 mA @ 250V
Operating Voltage	20...250V AC/DC
Voltage Drop	≤10V
Repeatability	≤5%
Hysteresis	≤10% typical
Protection Type	False pulse, transient noise, short circuit, overload
Certifications	cULus Listed and CE Marked for all applicable all directives
Enclosure Type Rating	NEMA 1, 2, 3, 4, 6, 6P, 12 and 13, IP67 (IEC529), 1200 psi (8270 kPa) washdown; micro connector versions also meet IP69K (IEC529)
Connection Type	Cable: 2 m (6.5 ft), 2-conductor #22 AWG ToughLink; Quick-Disconnect: 3-pin mini style, 3-pin micro style; Conduit Opening: 1/2 - 14NPT thread, PG 13.5 thread
LED	Green: Power, Orange: 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	0.7...0.8
Brass	0.4...0.5
Aluminum	0.3...0.4
Copper	0.2...0.3

## Features

- 2-wire operation
- 2 conductor, 2 terminal, or 3-pin connection
- 20...250V AC/DC
- False pulse, transient noise, short circuit, and overload protection
- cULus Listed and CE Marked for all applicable directives
- DIN Rail mounting option on quick-disconnect and cable models

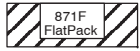
# 871F 2-Wire AC/DC

## Flat Pack Style

### Selection Guide

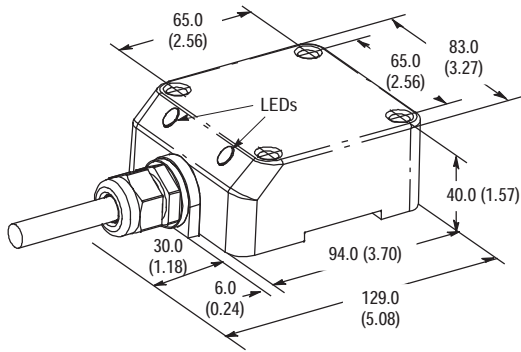
Head Size	Nominal Sensing Distance [mm (in.)]	Shielded	Output Configuration	Switching Frequency [Hz]	Cat. No.				
					ToughLink™ Cable	Mini QD Style	Micro QD Style	Conduit 1/2 NPT	Conduit PG13.5
83 (3.27)	50 (1.97) <b>1</b>	Y	N.O.	10	871F-R50N80-C2	871F-R50N80-N3	871F-R50N80-R3	871F-R50N80-T2	871F-R50N80-Q2
	65 (2.56)	N			871F-K65N80-C2	871F-K65N80-N3	871F-K65N80-R3	871F-K65N80-T2	871F-K65N80-Q2
Recommended Standard QD Cordset (-6F = 1.8 m (6 ft), -2 = 2 m (6.5 ft))					889N-F3AFC-6F	889R-F3ECA-2	—	—	—

**1** 50 mm when fully embedded in mild steel as shown

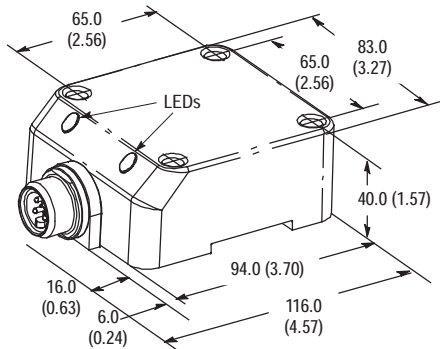


### Approximate Dimensions [mm (in.)]

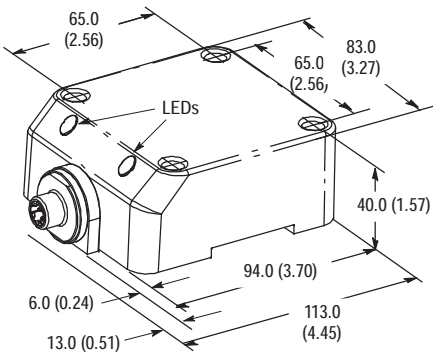
#### Cable Style



#### Mini QD Style

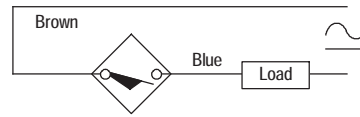


#### Micro QD Style



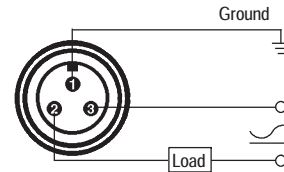
### Wiring Diagram

#### Normally Open



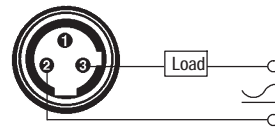
**Note:** Load can be switched to brown wire.

#### Normally Open



**Note:** Load can be switched to pin 3.

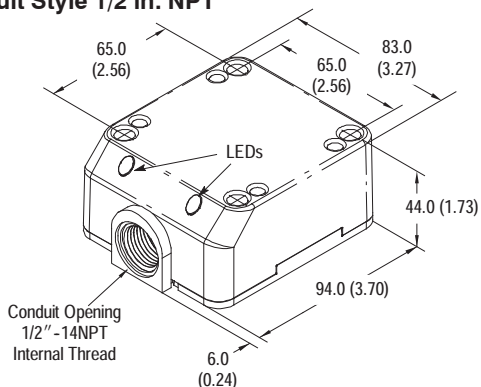
#### Normally Open



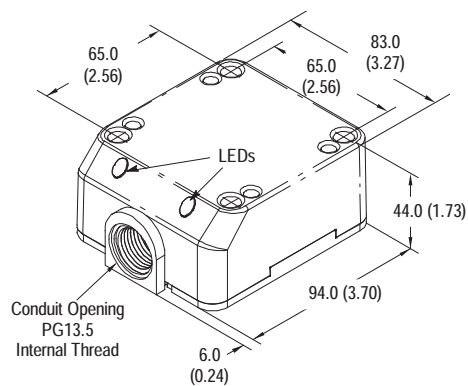
**Note:** Load can be switched to pin 2.

**Approximate Dimensions [mm (in.)]**

**Conduit Style 1/2 in. NPT**

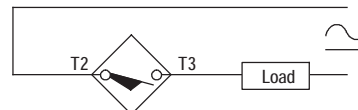


**Conduit Style PG13.5**



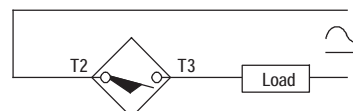
**Wiring Diagram**

**Normally Open**



**Note:** Load can be switched to terminal 2.

**Normally Open**



**Note:** Load can be switched to terminal 2.

**QD Cordsets and Accessories**

Description	Page Number
Other Cordsets Available	8-2