



871F AC/DC Cable Style

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

Specifications

Load Current	≤100mA
Minimum Load Current	5mA
Leakage Current	≤1.7mA @ 120V; ≤2.0mA @ 250V
Operating Voltage	20-250V AC/DC
Voltage Drop	≤10V
Repeatability	≤5%
Hysteresis	≤10% typical
False Pulse Protection	Incorporated
Transient Noise Protection	Incorporated
Short Circuit Protection	Incorporated
Overload Protection	Incorporated
Approvals	UL listed, c-UL certified, and CE marked for all applicable all directives
Enclosure	NEMA 1, 2, 3, 4, 6, 6P, 12 and 13, IP67 (IEC 529), 1200psi (8270kPa) washdown; Housing material: Valox®
Connections	Quick Disconnect: 3-pin mini style 3-pin micro style Cable: 2m (6.5ft) 2 conductor #22AWG ToughLink™ Conduit Opening: 1/2-14NPT thread, PG 13.5 thread
LEDs	Green: Power Orange: 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	0.7-0.8
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
- UL listed, c-UL certified, and CE marked for all applicable directives
- DIN rail mounting option on quick-disconnect and cable models

Allen-Bradley

871F 2-Wire AC/DC

Flat Pack Style

Selection Guide

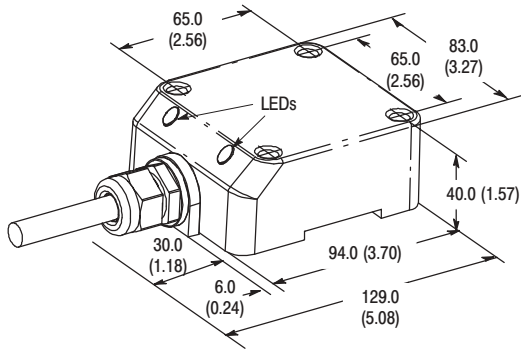
Head Size	Nominal Sensing Distance mm (in)	Shielded	Output Configuration	Switching Frequency (Hz)	Catalog Number				
					ToughLink™ Cable	Mini QD Style	Micro QD Style	Conduit 1/2 NPT	Conduit PG13.5
83 (3.27)	50 (1.97) ①	Y	N.O.	10	871F-R50N80-C2	871F-R50N80-N3	871F-R50N80-R3	871F-R50N80-T2	871F-R50N80-Q2
	65 (2.56)	N			871F-K65N80-C2	871F-K65N80-N3	871F-K65N80-R3	871F-K65N80-T2	871F-K65N80-Q2
Recommended Standard QD Cordset (-6F = 1.8m (6ft), -2 = 2m (6.5ft))					889N-F3AFC-6F	889R-F3ACA-2			

① 50mm when fully embedded in mild steel as shown

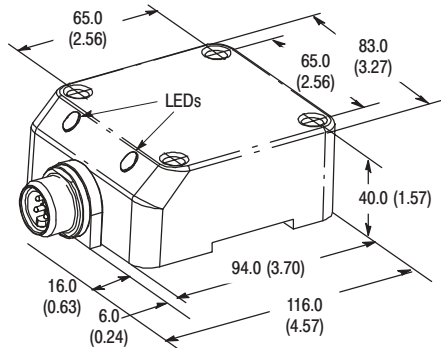


Dimensions—mm (inches)

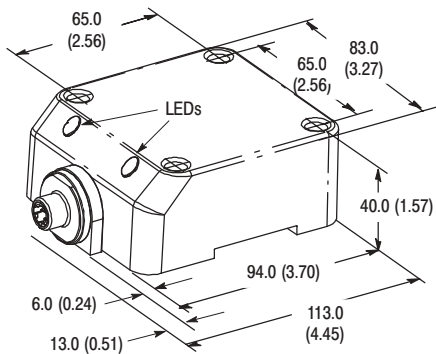
Cable Style



Mini QD Style

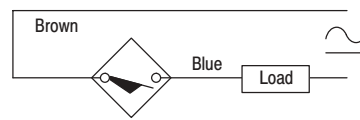


Micro QD Style



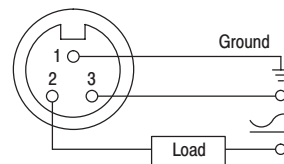
Wiring Diagram

Normally Open



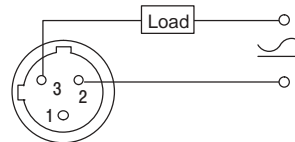
Note: Load can be switched to brown wire.

Normally Open



Note: Load can be switched to pin 3.

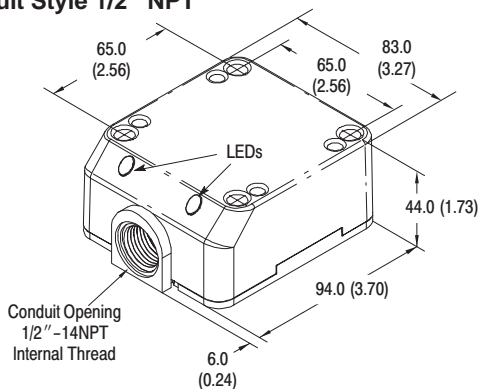
Normally Open



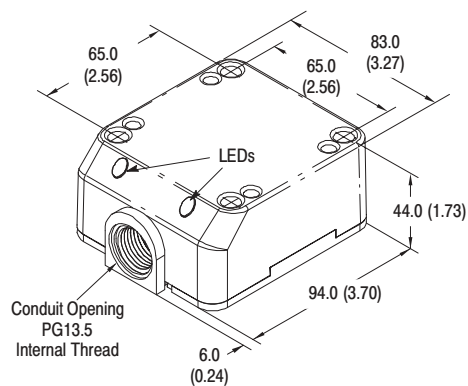
Note: Load can be switched to pin 2.

Dimensions—mm (inches)

Conduit Style 1/2" NPT

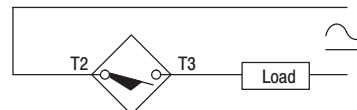


Conduit Style PG13.5



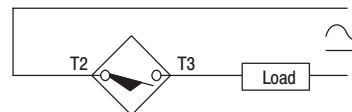
Wiring Diagram

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	8-1