



871F AC/DC Mini and Micro
 Quick-Disconnect Style
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Specifications

Load Current	≤400mA
Minimum Load Current	3mA
Inrush Current (1 cycle)	≤8A
Leakage Current	≤1.5mA
Operating Voltage	20-250V AC/DC
Voltage Drop	≤5V
Repeatability	≤10%
Hysteresis	≤15% typical
Short Circuit Protection	Incorporated
False Pulse Protection	Incorporated
Transient Noise Protection	Incorporated
Weld Field Immunity	20,000A at 1in
Approvals	CE marked for all applicable directives
Enclosure	NEMA 4 and 13, IP67 (IEC 529) Aluminum body, PTFE sensing area
Connections	Quick-Disconnect: 3-pin mini style 3-pin micro style
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

Description

Bulletin 871F inductive proximity sensors are self-contained, solid-state devices designed to sense the presence of ferrous and nonferrous metal objects without touching them. These special weld-field immune models are ideal for welding environments and other applications where large magnetic fields are present. They are rated for reliable operation at a 1in distance from a current in line carrying 20,000A.❶

Each sensor is housed by an aluminum body which meets NEMA 4, 13, and IP67 (IEC 529) enclosure standards. It is equipped with a green LED to indicate power and an orange LED which lights when the output is energized.

Features

- 2-wire operation
- 3-pin connection
- 20-250V AC/DC
- Normally open output
- Weld field immune
- Short circuit, false pulse and transient noise protection
- CE marked for all applicable directives

❶ Note: This distance varies with current line amperage. See page 2-7 of the Introduction section to determine the minimum distance for your application.

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

871F 2-Wire AC/DC Weld Field Immune

Flat Pack Style

Product Selection

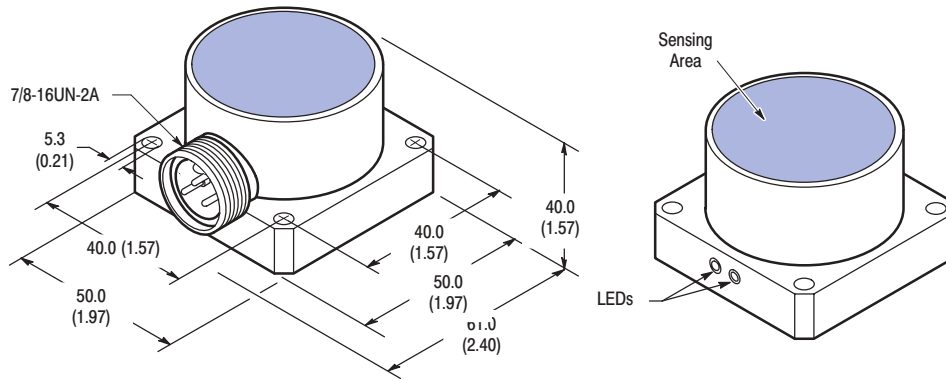
Head Size	Nominal Sensing Distance mm (inches)	Shielded	Output Configuration	Switching Frequency (Hz)	Catalog Number	
					Mini QD Style	Micro QD Style
50	20 (0.79)	Y	N.O.	15	871F-BW20N50-N3	871F-BW20N50-R3
Recommended Standard QD Cordset (-2 = 2m (6.5ft), -6F = 1.8m (6ft))					889N-F3AFC-6F	889R-F3WEA-2

QD Cordsets and Accessories

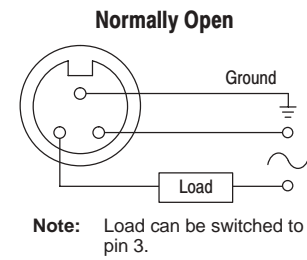
Description	Page Number
Other Cordsets Available	NO TAG, 7-68

Dimensions—mm (inches)

Mini QD Style



Wiring Diagram



Micro QD Style

