

# 871Z 3-Wire DC Weld Field Immune

PTFE Face/Threaded PTFE-Coated Brass Barrel



871Z DC Mini  
Quick-Disconnect Style  
18, 30mm  
page 2-95



871Z DC Micro  
Quick-Disconnect Style  
12, 18, 30mm  
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## Specifications

<b>Load Current</b>	≤200mA
<b>Minimum Load Current</b>	1mA
<b>Leakage Current</b>	≤10μA
<b>Operating Voltage</b>	10–30V DC
<b>Voltage Drop</b>	≤2.4V
<b>Repeatability</b>	≤10%
<b>Hysteresis</b>	≤15% typical
<b>False Pulse Protection</b>	Incorporated
<b>Transient Noise Protection</b>	Incorporated
<b>Reverse Polarity Protection</b>	Incorporated
<b>Short Circuit Protection</b>	Incorporated
<b>Overload Protection</b>	Incorporated
<b>Weld Field Immunity</b>	20,000 A at 1in
<b>Approvals</b>	CE marked for all applicable directives
<b>Enclosure</b>	NEMA 1, 2, 3, 4, 12 and 13, IP67 (IEC 529) PTFE coated brass barrel
<b>Connections</b>	Quick-Disconnect: 4-pin mini style 4-pin micro style
<b>LED</b>	Red: Output Energized
<b>Operating Temperature</b>	-25°C to +70°C (-13°F to +158°F)
<b>Shock</b>	30g, 11ms
<b>Vibration</b>	55Hz, 1mm amplitude, 3 planes

## Features

- 3-wire operation
- 3-conductor or 4-pin connection
- 10–30V DC
- Weld field immunity
- Normally open output
- Reverse polarity, short circuit, overload, false pulse and transient noise protection
- CE marked for all applicable directives

## 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	0.3-0.4

AB Parts

Inductive Proximity Sensors  
**871Z 3-Wire DC Weld Field Immune**  
 PTFE Face/Threaded PTFE-Coated Brass Barrel

**Product Selection**

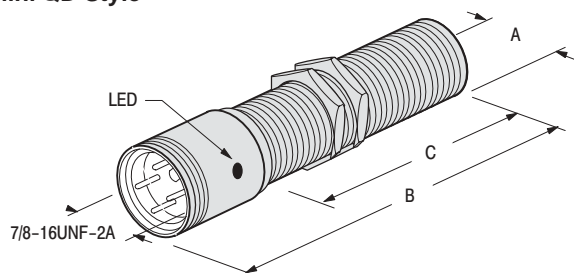
Barrel Diameter	Nominal Sensing Distance mm (inches)	Shielded	Output Configuration		Switching Frequency (Hz)	Catalog Number	
						Mini QD Style	Micro QD Style
12mm	2 (0.08)	Y	N.O.	PNP	15	—	871Z-DW2NP12-D4
18mm	5 (0.20)	Y	N.O.	PNP	15	871Z-DW5NP18-N4	871Z-DW5NP18-D4
30mm	10 (0.39)	Y	N.O.	PNP	15	871Z-DW10NP30-N4	871Z-DW10NP30-D4
Recommended Standard QD Cordset (-6F = 1.8m (6ft), -2 = 2m (6.5ft))						889N-F4AFC-6F	889D-F4WE-2

**QD Cordsets and Accessories**

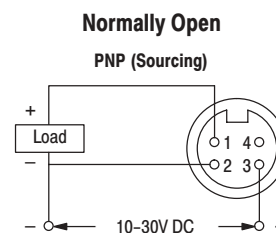
Description	Page Number
Other Cordsets Available	7-8, 7-41
Terminal Chambers	7-20
Mounting Brackets	2-186 - 2-190
PTFE End Caps	2-195
Mounting Nuts	2-197 - 2-198

**Dimensions—mm (inches)**

**Mini QD Style**

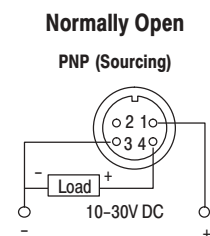
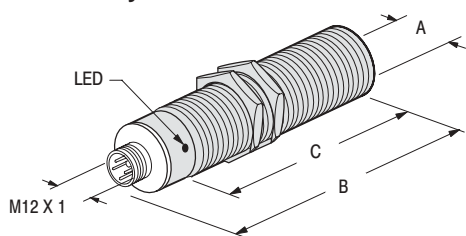


**Wiring Diagram**



Thread Size	Shielded	mm (inches)		
		A	B	C
M18 X 1	Y	18.0 (0.71)	90 (3.54)	53 (2.09)
M30 X 1.5	Y	30.0 (1.18)	90 (3.54)	56 (2.20)

**Micro QD Style**



Thread Size	Shielded	mm (inches)		
		A	B	C
M12 X 1	Y	12.0 (0.47)	70.0 (2.76)	50.0 (1.97)
M18 X 1	Y	18.0 (0.71)	80.0 (3.15)	60.0 (2.36)
M30 X 1.5	Y	30.0 (1.18)	80.0 (3.15)	60.0 (2.36)