

Inductive Proximity Sensors

871L & 872L 3-Wire DC

Limit Switch Style



871L & 872L DC
Mini Quick-Disconnect Style



871L & 872L DC
Micro Quick-Disconnect Style



871L & 872L DC
Conduit Style

Features

- 3-wire operation
- 3-terminal or 4-pin connection
- 10...60V DC for 871L models
- 10...30V DC for 872L models
- Switch selectable normally open or normally closed output on 871L models
- Normally open or normally closed outputs programmable via jumper on 872L models
- Alignment LED on 871L models
- False pulse, transient noise, reverse polarity, short circuit and overload protection
- cULus and CE Marked for all applicable directives

Specifications

	871L Models	872L Models
Load Current	≤400 mA	≤120 mA
Leakage Current	≤10 μA	≤10 μA
Operating Voltage	10...60V DC	10...30V DC
Voltage Drop	≤2.4V	≤2.5V
Repeatability	≤5%	≤5%
Hysteresis	≤20% typical	≤20% typical
False Pulse Protection	Incorporated	Incorporated
Transient Noise Protection	Incorporated	Incorporated
Reverse Polarity Protection	Incorporated	Incorporated
Short Circuit Protection	Incorporated	Incorporated
Overload Protection	Incorporated	Incorporated
Certifications	cULus and CE Marked for all applicable directives	
Enclosure	NEMA 3, 4, 6, 12, 13, IP67 (IEC 529) Polyloy	
Connections	Quick-Disconnect: 4-pin mini style 4-pin micro style Conduit Opening: 1/2-14 NPT internal thread with screw terminals	
LEDs	Green: Power (Blinks in SCP/Overload) Orange: Output Energized Red: Alignment Indicator	Green: Power (Blinks in SCP/Overload) 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

Product Selection

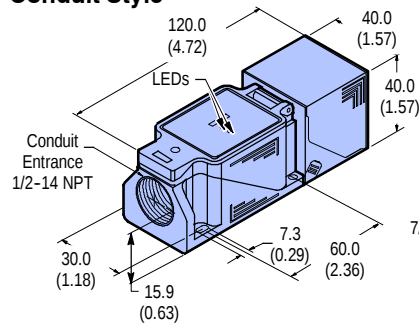
Head Size	Nominal Sensing Distance [mm (in.)]	Shielded	Output Configuration		Switching Frequency [Hz]	Cat. No.		
						Conduit Style	Mini QD Style	Micro QD Style
40	20 (0.79)	Y	Selectable N.O. or N.C.	NPN	150	871L-D20EN40-T3	871L-D20EN40-N4	871L-D20EN40-D4
				PNP		871L-D20EP40-T3	871L-D20EP40-N4	871L-D20EP40-D4
	40 (1.57)	N		NPN	70	871L-D40EN40-T3	871L-D40EN40-N4	871L-D40EN40-D4
				PNP		871L-D40EP40-T3	871L-D40EP40-N4	871L-D40EP40-D4
	20 (0.79)	Y	Program- mable N.O. or N.C.	NPN	100	872L-D20EN40-T3	872L-D20EN40-N4	872L-D20EN40-D4
				PNP		872L-D20EP40-T3	872L-D20EP40-N4	872L-D20EP40-D4
	40 (1.57)	N		NPN	50	872L-D40EN40-T3	872L-D40EN40-N4	872L-D40EN40-D4
				PNP		872L-D40EP40-T3	872L-D40EP40-N4	872L-D40EP40-D4
Recommended Standard QD Cordset (-6F = 1.8 m (6 ft), -2 = 2 m (6.5 ft))						889N-F4AFC-6F	889D-F4AC-2	

QD Cordsets and Accessories

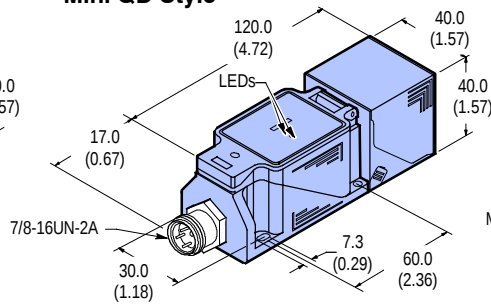
Description	Page Number
Other Cordsets Available	8-2

Approximate Dimensions [mm (in.)]

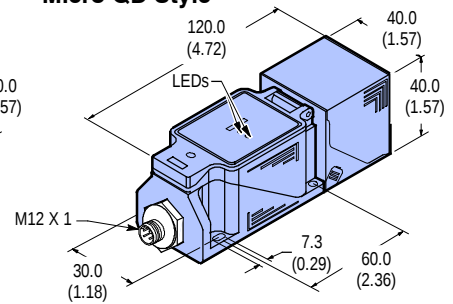
Conduit Style



Mini QD Style



Micro QD Style

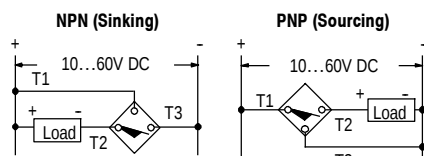


Note: Head can be rotated in 22.5° increments to provide 16 side-sensing positions or rotated for top-sensing.

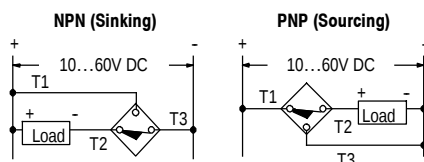
Wiring Diagram

Conduit Style

Normally Open



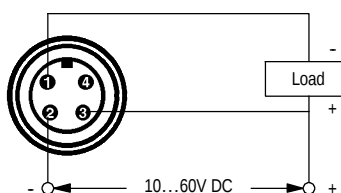
Normally Closed



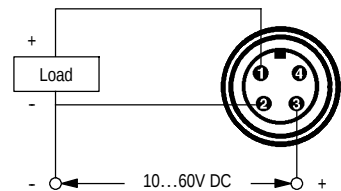
Mini QD Style

Normally Open or Normally Closed

NPN (Sinking)



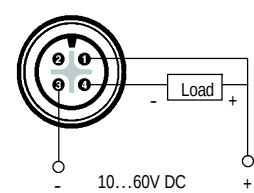
PNP (Sourcing)



Micro QD Style

Normally Open or Normally Closed

NPN (Sinking)



PNP (Sourcing)

