

Installation

User Interface

LED Status

Standard IO Operation

LED Color	State	Condition
Yellow	OFF	Output is OFF
	Solid	Sensor output is triggered ON
	Blinking (margin indication)	Target is 80...100% of the maximum sensing range

IO-Link Operation

LED Color	State	Condition
Yellow	OFF	Power is OFF
	Solid	Sensor is connected to IO-Link master

Mounting

Securely mount the sensor on a firm, stable surface, or support for reliable operation. A mounting subject to excessive vibration or shifting could cause intermittent operation. Once securely mounted, the sensor can be wired per the wiring instructions in the next section.

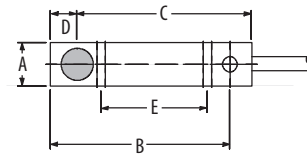
The user might need to adjust the sensor in the mounting due to the location of the target in relation to the sensor face. The 871FM offers margin indication through the yellow LED. The LED blinks when the target is 80% of the maximum sensing distance or farther from the sensor face. It is recommended the user adjust the sensor to be closer to the target.

IMPORTANT When the sensor is connected to IO-Link, the LED will not indicate margin status. The margin status is shown as a process bit in Studio 5000 tag.

Dimensions

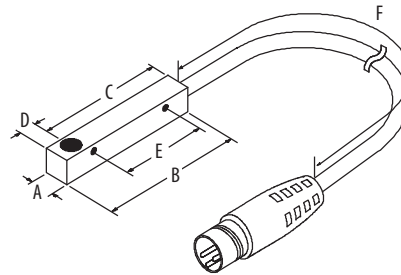
The following illustration shows the relevant device dimensions.

M5 and M8 Square Cable [mm (in.)]



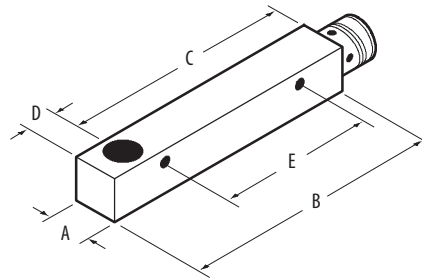
Housing Width	Thread Length [mm (in.)]				
	A	B	C	D	E
5 (0.2)	5.0 (0.2)	15 (0.59)	22 (0.87)	3 (0.12)	14 (0.55)
8 (0.31)	8.0 (0.31)	37 (1.46)	35 (1.38)	5 (0.2)	20 (0.79)

M5 Square with 6 inch Pigtail



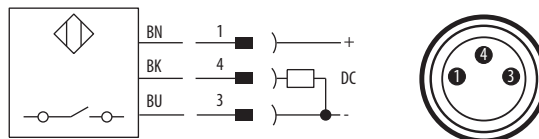
Housing Width	Thread Length					
	A	B	C	D	E	F
5 (0.2)	5.0 (0.2)	25 (0.98)	22 (0.87)	3 (0.12)	14 (0.55)	150 (6)

M8 Square 3-pin Pico



Housing Width	Thread Length				
	A	B	C	D	E
8 (0.31)	8.0 (0.31)	50 (1.97)	45 (1.77)	5 (0.2)	20 (0.79)

Wiring



Pin	Signal	Description
1	+10...30V DC	Device supply
3	GND	GND for device
4	LOAD	IO-Link/Output/SIO

Rockwell Automation® recommends the use of the 889 Series of cordsets and patchcords for quick-disconnect (QD) model sensors. All external wiring must conform to the National Electric Code and all applicable local codes.