

# CU2 Sensor Details

## Description

Bulletin 872C WorldProx inductive proximity sensors are self-contained, general purpose, solid-state devices designed to sense the presence of ferrous and nonferrous metal objects without touching them.



The switch body consists of a plastic face and a nickel-plated brass barrel. It meets NEMA 1, 2, 3, 4, 6P, 12, 13 and IP67 (IEC 529) enclosure standards. The electronic circuitry is fully potted for protection against shock, vibration, and contamination.

The CU2 is designed to operate with one normally-open NPN and one normally-open PNP inductive proximity sensor.

The sensors translucent end caps glow when the LED indicator is on, and are visible from almost every angle.

The sensors contained in this section are some of the more popular size inductive proximity sensors. See the Rockwell Automation/ Allen-Bradley Sensors catalog for an extensive range of proximity sensors.

## LED Indicators

Amber	Output energized, 360° visibility
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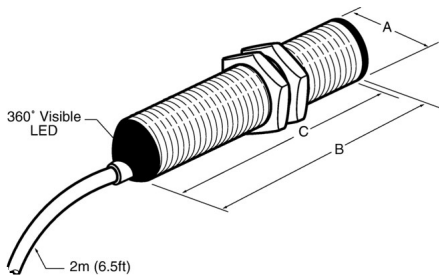
## Specifications

Standards	EN 954-1, ISO 13849-1, IEC/EN 60204-1, IEC 60947-5-1, ANSI B11.19, AS4024.1
Safety Classification	Cat. 1 per EN 954-1 (ISO 13849-1)
Certifications	<b>CE Marked for all applicable directives, cULus, c-Tick, and TÜV</b>
Operating Voltage	10...30V DC
Sensing Distance	2, 5 or 10 mm
Correction Factors	Mild Steel = 1.0 Stainless Steel = 0.7...0.8 Brass = 0.4...0.5 Aluminum = 0.3...0.4 Copper = 0...0.3
Load Current, Max.	200 mA
Outputs	NPN or PNP normally open
Leakage Current	≤10 mA
Sensor Voltage Drop	≤1.64V
Repeatability	≤2%
Hysteresis	≤10% typical
Status Indicators	Red = Output energized
Operating Temperature [C (F)]	-25...+70 ° (-13...+158 °)
Relative Humidity	95%
Enclosure Type Rating	NEMA 1, 2, 3, 4, 6P, 12, 13, IP67
Protection	False pulse on power, transient noise, reverse polarity, short circuit, overload
Cable Size	3 x 1 mm <sup>2</sup> (26 AWG) stranded
Cable Length	2 m (6.5 ft)
Material	Plastic-faced, nickel-plated brass barrel
Mounting	M12, M18 or M30 Flush Fitting (Shielded Sensing)/IP20, DIN 0470
Shock	30 g, 11 ms half-sine
Vibration	1 mm peak, 10...55 Hz

**Note:**See Output Ratings on page **Output Ratings** for details. Consult factory for ratings not shown.

## Approximate Dimensions

Dimensions are shown in mm (in.). Dimensions are not intended to be used for installation purposes.



Thread Size	Shielded	mm (inches)		
		A	B (max)	C (min)
M12 x 1	Yes	12 (0.47)	50.8 (2.00)	46.7 (1.84)
M18 x 1		18 (0.71)		
M30 x 1		30 (1.18)		

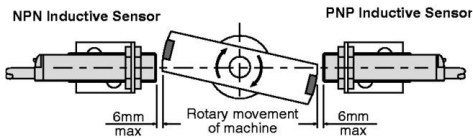
## Application Details

### Application Accessories



#### PNP and NPN Inductive Sensors for use with CU2

Sensors detect when motion has ceased by monitoring two targets on moving metal parts. When motion has ceased the CU2 begins timing down. Once preset time limit has been passed the CU2 sends a single allowing locked guard to be opened.



#### CU1 remote indication unit:

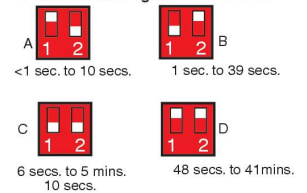
A remote indication unit to indicate the status of the circuit can be connected to the CU 1s, R1, R2 and R3 connections.

### Adjustable Time Delay

DIP switches general time setting and the potentiometer fine tunes the time settings. Easy access 500 mAT replaceable fuse.



#### General time settings via DIP switches



#### Fine adjustment time setting via potentiometer



## Typical Wiring Diagrams

