



**Description**

Bulletin 802PR inductive proximity sensors are self-contained, 2-wire devices designed to detect the presence of ferrous and nonferrous metal objects without touching them. Types LA and XA are high-output AC models designed to switch current loads up to 1 A, while types LB and XB are AC/DC solid-state switches made to interface directly with programmable controllers.

**Features**

- Multiple sensing directions
- Cable, conduit, or quick-disconnect styles
- Short circuit protection (AC/DC models)
- Overload protection (AC/DC models)
- Transient noise protection
- False pulse protection
- Hazardous location models are available
- UL Listed, CSA Certified and CE Marked for all applicable directives

**Styles**


- AC/DC 2-Wire . . . . . page 2-160
- AC/DC 2-Wire Hazardous Location . . . . . page 2-165
- AC 2-Wire High-Output . . . . . page 2-167
- AC 2-Wire Hazardous Location High-Output . . . . . page 2-171

**Accessories**

- Cordsets . . . . . page 8-1

**General Information**

- Metric/English Conversion Chart . . . . . page 14-6

	<p><b>ATTENTION</b> High-output models should not be used in solid-state switching, TTL, or programmable controller operations.</p>
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Each sensor is housed in a self-extinguishing glass-reinforced polyester body. Special hazardous location models are available which meet Division 2 enclosure standards in Classes I, II, and III (see specifications). Switch constructions include top and side sensing models. The side-sensing head can be rotated in 90° increments to sense in four directions. These devices are available with a threaded conduit opening, conduit coupler, 3-pin mini connector, 3-pin micro connector, or pre-wired cable.



802PR AC/DC  
Cable Style



802PR AC/DC Mini  
Quick-Disconnect Style



802PR AC/DC Micro  
Quick-Disconnect Style



802PR AC/DC  
Conduit Style

**Specifications**

Load Current	AC 4...25 mA; DC 2...25 mA
Leakage Current	≤1.7 mA at 132V, ≤2.5 mA at 250V
Operating Voltage	20...250V AC/DC
Voltage Drop	≤10V
Repeatability	≤10% typical
Hysteresis	≤10% typical
Transient Noise Protection	Incorporated
Short Circuit Protection	Incorporated
Overload Protection	Incorporated
False Pulse Protection	Incorporated
Radio Frequency Protection	10V per meter; frequency range 20...1000 MHz
Certifications	UL Listed, CSA Certified and CE Marked for all applicable directives
Enclosure	NEMA 1, 2, 3, 4, 4X <sup>❶</sup> , 12, 13, IP65 (IEC529) Self extinguishing glass-reinforced polyester body
Connections	Cable: 2.4 m (8 ft) length 2-conductor ToughLink™ Quick-Disconnect: 3-pin micro style 3-pin mini style  Conduit Opening or Conduit Coupler: Internal thread with screw terminals (use #18-14 AWG wire)
LEDs	Green: Power; Red: Output energized (both on in SCP/Overload)
Operating Temperature [C (F)]	-25...+75° (-13...+167°)
Shock	30 g, 11 ms
Vibration	55 Hz, 1 mm amplitude, 3 planes

❶ Corrosion resistant models

**Features**

- 2-wire operation
- 2-conductor or 3-pin connection
- 20...250V AC/DC (for solid state inputs)
- Normally open output
- Short circuit, overload, false pulse, RFI and transient noise protection
- Corrosion resistant models
- 2 LEDs
- UL Listed, CSA Certified and CE Marked for all applicable directives

**Correction Factors**

Target Material	Correction Factor
Steel	1.0
Stainless Steel	0.9
Brass	0.8
Aluminum	0.75
Copper	0.7

**Inductive Proximity Sensors**  
**802PR 2-Wire AC/DC Hazardous Location**  
**Limit Switch Style**



*802PR AC/DC  
Conduit Style*

**Features**

- 2-wire operation
- 2-terminal connection
- 20...250V AC/DC (for solid-state inputs)
- Normally open output
- Short circuit, overload, false pulse, RFI, and transient noise protection
- Hazardous location rating
- 2 LEDs
- UL Listed and CSA Certified

**Specifications**

Load Current	AC: 4...25 mA, DC: 2...25 mA
Leakage Current	≤1.7 mA at 132V, ≤2.5 mA at 250V
Operating Voltage	20...250V AC/DC
Voltage Drop	≤10V
Repeatability	≤10% typical
Hysteresis	≤10% typical
Protection Type	Transient noise, short circuit, overload, false pulse, radio frequency (≤10V per meter; frequency range 20...1000 MHz)
Certifications	UL Listed and CSA Certified
Enclosure Type Rating	NEMA 1, 2, 3, 4, 12, 13; IP65 (IEC529); Division 2 Class I: Groups A, B, C & D; Class II: Groups F & G; Class III: All groups Self-extinguishing glass-reinforced polyester body
Connection Type	Conduit Coupler: 1/2 - 14 NPT internal thread with screw terminals, use #18...14 AWG wire
LED	Green: Power, Red: Output energized (both on in SCP/Overload)
Operating Temperature [C (F)]	-25...+75 ° (-13...+167 °)
Shock	30 g, 11 ms
Vibration	55 Hz, 1 mm amplitude, 3 planes

**Correction Factors**

Target Material	Correction Factor
Steel	1.0
Stainless Steel	0.9
Brass	0.8
Aluminum	0.75
Copper	0.7

# Inductive Proximity Sensors

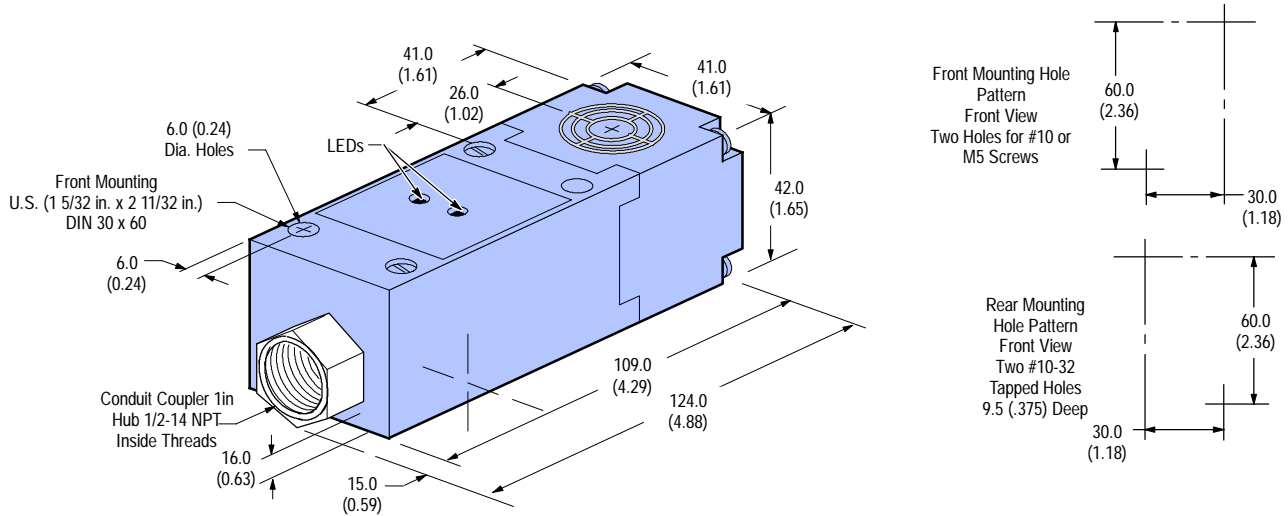
## 802PR 2-Wire AC/DC Hazardous Location, Conduit Style

### Limit Switch Style

#### Product Selection

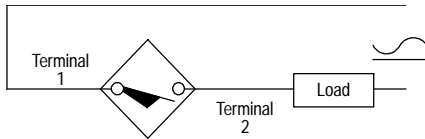
Sensing Direction	Nominal Sensing Distance [mm (in.)]	Shielded	Output Configuration	Switching Frequency [Hz]	Cat. No. Conduit Style
Side	17 (0.67)	Y	N.O.	20	802PR-LBAA3
Top					802PR-LBAJ3

#### Approximate Dimensions [mm (in.)]



**Note:** Side-sensing model heads can be turned in 90° increments to accommodate 4 side-sensing positions.

#### Wiring Diagram



**Note:** Load can be switched to Terminal 1.