



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

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AC 2-Wire Hazardous Location
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Accessories

Cordsets page 8-1

General Information

Metric/English
Conversion Chart page 14-6

ATTENTION



High-output models should not be used in solid-state switching, TTL, or programmable controller operations.

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, 4X❶, 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

802PR 2-Wire AC High Output, Conduit Style

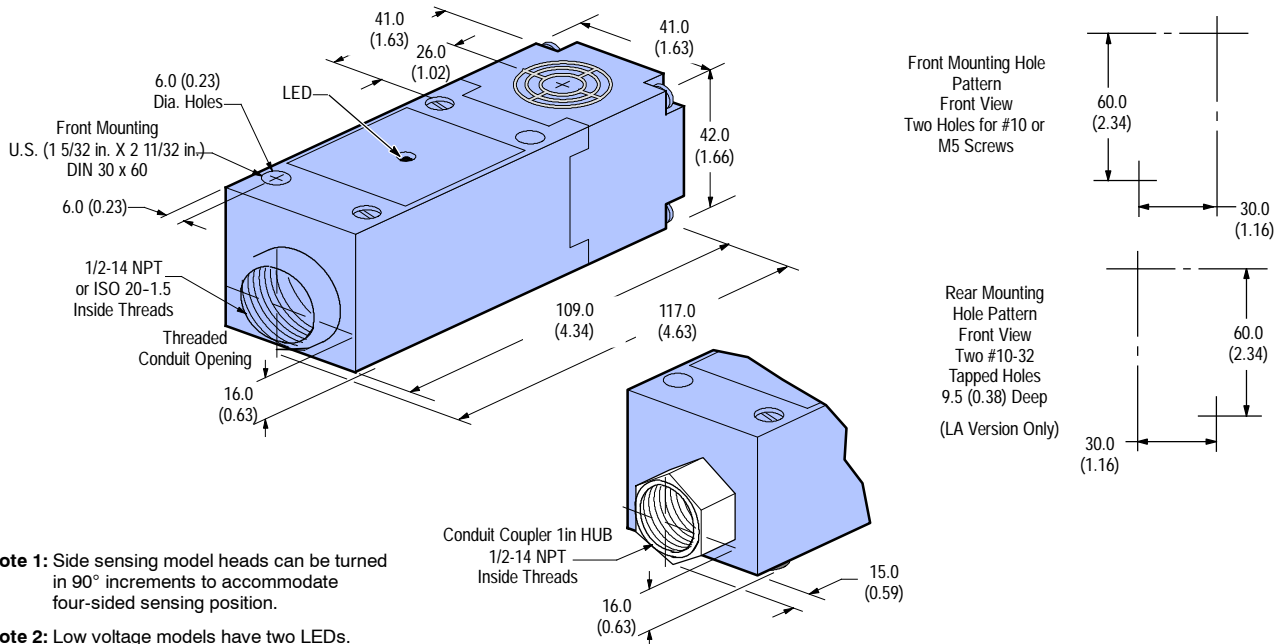
Limit Switch Style

Product Selection

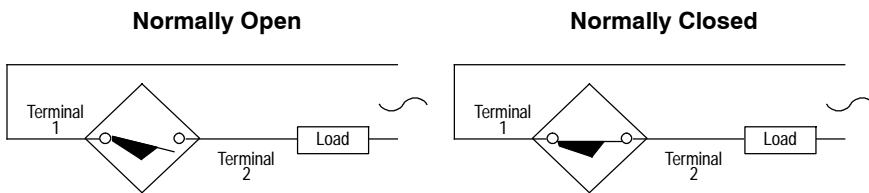
Sensing Direction	Nominal Sensing Distance [mm (in.)]	Shielded	Output Configuration	Corrosion Resistant	Voltage Range	Switching Freq. [Hz]	Connection	Cat. No. Conduit Style
Side	13 (0.51)	Y	Selectable ①	N	60...132V AC	20	Conduit Coupler	802PR-LABA2
Top							Threaded 1/2-14 NPT ③	802PR-LABB2
Side							Conduit Coupler	802PR-LABJ2
Top			Threaded 1/2-14 NPT ③				802PR-LABH2	
Side			Selectable ②				Conduit Coupler	802PR-LACA2
Top							Threaded 1/2-14 NPT ③	802PR-LACB2
Side	Conduit Coupler	802PR-LACJ2						
Top	N.O.	Y	N.O.	102...132V AC	16	Conduit Coupler	802PR-LACH2	
Side						Threaded 1/2-14 NPT ③	802PR-LAAA1	
Top						Conduit Coupler	802PR-LAAB1	
Side						Threaded 1/2-14 NPT ③	802PR-LAAJ1	
Top						Threaded 1/2-14 NPT ③	802PR-LAAH1	
Side						Threaded 1/2-14 NPT ③	802PR-XAAB1	
Top	Threaded 1/2-14 NPT ③	802PR-XAAH1						

- ① Preset to N.O. at factory.
- ② Preset to N.C. at factory.
- ③ To order ISO 20-1.5 add '-S6' to cat. no.

Approximate Dimensions [mm (in.)]



Wiring Diagram



Note: Load can be switched to Terminal 1.