

pro^{ense} P8 Series Inductive Rectangular Proximity Sensors



8 x 16mm Rectangular – DC

- Compact 8 x 16 x 4mm plastic housing
- Axial cable or M8 quick-disconnect models; purchase cable separately
- Complete overload protection
- IP67 rated
- Lifetime warranty



P8 Series Rectangular DC Inductive Proximity Selection Chart								
Part Number	Price	Sensing Range	Mounting	Output State	Logic	Connection	Wiring	Drawing Link
P8-AP-1F		1.5mm [0.06in]	Flush	N.O.	PNP	M8x1, 3-pin	Diagram 1	PDF
P8-CP-1F		1.5mm [0.06in]	Flush	N.C.	PNP	M8x1, 3-pin	Diagram 1	PDF
P8-AN-1F		1.5mm [0.06in]	Flush	N.O.	NPN	M8x1, 3-pin	Diagram 2	PDF
P8-CN-1A		1.5mm [0.06in]	Flush	N.C.	NPN	3-wire cable, 2m [6.5ft]	Diagram 2	PDF
P8-AP-2F		2.5mm [0.10in]	Non-flush	N.O.	PNP	M8x1, 3-pin	Diagram 1	PDF
P8-CP-2F		2.5mm [0.10in]	Non-flush	N.C.	PNP	M8x1, 3-pin	Diagram 1	PDF
P8-AN-2A		2.5mm [0.10in]	Non-flush	N.O.	NPN	3-wire cable, 2m [6.5ft]	Diagram 2	PDF

Wiring Diagrams

Diagram 1
PNP Output

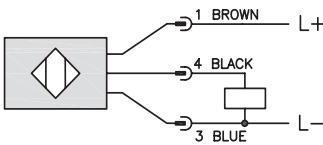
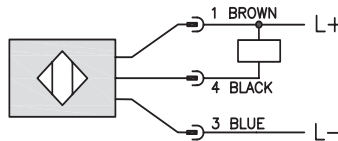
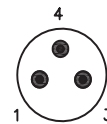


Diagram 2
NPN Output



M8 connector



Warning: These products are not safety sensors and are not suitable for use in personal safety applications.

P8 Series Inductive Rectangular Specifications

P8 Series Rectangular DC Inductive Proximity Specifications						
Part Number	Operating Voltage	Operating (Load) Current	Off-state (Leakage) Current	Voltage Drop	Switching Frequency	Repeat Accuracy
P8-AP-1F	10–30 VDC	100 mA	50 μ A	2.5V	2500 Hz	1.0%
P8-CP-1F	10–30 VDC	100 mA	50 μ A	2.5V	2500 Hz	1.0%
P8-AN-1F	5–30 VDC	50 mA	50 μ A	1.1V	2500 Hz	5.0%
P8-CN-1A	10–30 VDC	100 mA	50 μ A	1.8V	2500 Hz	1.0%
P8-AP-2F	10–30 VDC	100 mA	1 μ A	2.5V	3000 Hz	3.0%
P8-CP-2F	10–30 VDC	100 mA	1 μ A	2.5V	3000 Hz	3.0%
P8-AN-2A	10–30 VDC	100 mA	50 μ A	2.5V	2500 Hz	5.0%

P8 Series Rectangular DC Inductive Proximity Specifications		
Mounting Type	Flush	Non-flush
Nominal Distance	See Selection Table	
Assured Operating Distance	1.2mm [0.05in]	2.2mm [0.09in]
Material Correction Factors	See Material Influence Table	
Output Type	See Sensor Selection Chart	
No-load Supply Current	3 mA	
Ripple	15%	
Time Delay Before Availability (tv)	20 ms	
Reverse Polarity Protection	Yes	
Short-Circuit Protection	Yes	
Operating Temperature	-25 to +70 °C [-13 to +158 °F]	
Protection Degree (DIN 40050)	IP67	
Indication/Switch Status	Embedded function LED for switch status	
Housing Material	PA 6, GF30 (Nylon 6 Polymer)	
Sensing Face Material	PA 6, GF30 (Nylon 6 Polymer)	
Shock / Vibration	Shock: EN 60068-2-27 Vibration: EN 60068-2-6	
Tightening Torque	0.06 N•m [0.04 lb•ft]	
Weight (cable/M8 connector)	M8 Models 9.07g [0.31 oz] Cabled Models 22.68g [0.8 oz]	
Connections	M8x1, 3-pin 0.30m [0.98ft] or cable 2m [6.5ft] PUR, 28 AWG [0.09 mm ²]	
Agency Approvals	CE, cULus, IEC 60947-5-2	

To obtain the most current agency approval information, see the Agency Approval Checklist section on the specific part number's web page.

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