

PD Series Inductive Proximity Sensors



Miniature M5 (5mm) stainless steel – DC

- Eight models available
- Stainless steel construction
- Axial cable or M8 quick-disconnect models
- Complete overload protection
- IP67 rated
- Smallest self-contained inductive proximity sensor available on the U.S. market
- LED status indicator
- Lifetime warranty



PD Series M5 DC Inductive Prox Selection Chart							
Part Number	Price	Sensing Range	Mounting	Output State	Logic	Connection	Dimensions
Standard Distance							
PD1-AN-1A		0.8 mm (0.03 in)	Flush	N.O.	NPN	2m (6.5 ft) axial cable	Figure 1
PD1-AP-1A		0.8 mm (0.03 in)	Flush	N.O.	PNP	2m (6.5 ft) axial cable	Figure 1
PD1-AN-1F		0.8 mm (0.03 in)	Flush	N.O.	NPN	M8 (8mm) connector	Figure 2
PD1-AP-1F		0.8 mm (0.03 in)	Flush	N.O.	PNP	M8 (8mm) connector	Figure 2
Extended Distance							
PD1-AN-3A		1.5 mm (0.06 in)	Flush	N.O.	NPN	2m (6.5 ft) axial cable	Figure 1
PD1-AP-3A		1.5 mm (0.06 in)	Flush	N.O.	PNP	2m (6.5 ft) axial cable	Figure 1
PD1-AN-3F		1.5 mm (0.06 in)	Flush	N.O.	NPN	M8 (8mm) connector	Figure 2
PD1-AP-3F		1.5 mm (0.06 in)	Flush	N.O.	PNP	M8 (8mm) connector	Figure 2

PD Series Specifications		
Mounting Type	Standard Distance	Extended Distance
		Flush
Nominal Sensing Distance	0.8 mm (0.03 in)	1.5 mm (0.06 in)
Operating Distance	NA	
Material Correction Factors	See the Material influence table	
Output Type	NPN or PNP/N.O. only/3-wire	
Operating Voltage	10 to 30 VDC	
No-load Supply Current	≤ 10mA	
Operating (Load) Current	≤ 200mA	
Off-state (Leakage) Current	≤ 10µA	≤ 0.1mA
Voltage Drop	≤ 2.0 V	
Switching Frequency	5kHz	3kHz
Differential Travel (% of Nominal Distance)	≤ 10%	
Repeat Accuracy	≤ 1.5%	
Ripple	≤ 20%	
Time Delay Before Availability (tv)	10ms	
Reverse Polarity Protection	Yes	
Short-Circuit Protection	Yes (switch auto-resets after overload is removed)	
Operating Temperature	-25° to +70°C (-13° to 158°F)	
Protection Degree (DIN 40050)	IEC IP67	
Indication/Switch Status	Yellow (output energized)	
Housing Material	Stainless steel	
Sensing Face Material	Polybutylene Terephthalate (PBT)	Polyester
Shock/Vibration	See Proximity Sensor Terminology	
Tightening Torque	1.5 Nm (13.3 lb./in.)	
Weight	43g (1.52 oz)/10g (0.36 oz)	34g (1.20 oz)/4g (0.14 oz)
Connection	2 meter PVC axial cable / M8 connector	
Agency Approvals	UL file E328811	

Dimensions

mm [inches]

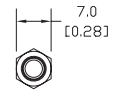


Figure 1

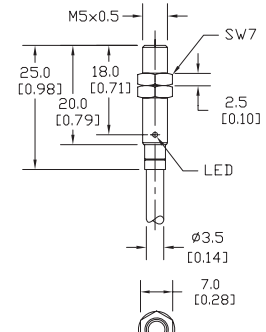
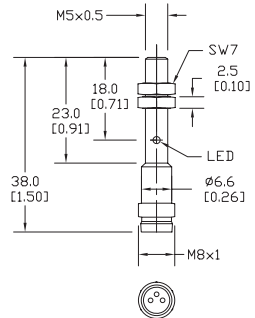
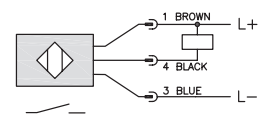


Figure 2

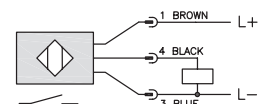


Wiring diagrams

NPN Output

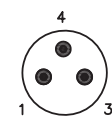


PNP Output



Connector

M8 connector



Accessories for 5mm Sensors

Right-angle Mounting Bracket

Mounting bracket, right-angle, plastic. For use with 5mm sensors.

Accessories for 5mm Sensors				
Part Number	Price	Description	Drawing Link	Weight [lb]
OPT2100		Wenglor mounting bracket, right-angle, plastic. For use with 5mm sensors.	PDF	0.02



OPT2100