

PY Series Inductive Proximity Sensors



Miniature Ø3 (3 mm) and M4 (4 mm) stainless steel – DC

- Smallest self-contained inductive proximity sensor available on the U.S. market
- Eight models available
- Complete overload protection

- IP67 rated
- Stainless steel construction
- LED status indicator

PY Series Ø3 and M4 DC Inductive Prox Selection Chart								
Part Number		Size	Sensing Range	Housing	Output State	Logic	Connection	Dimensions
Standard Distance								
PY3-AN-1A	<-->	Ø3*	0.6mm (0.024in)	Shielded	N.O.	NPN	2m (6.5') axial cable	Figure 1
PY3-AP-1A	<-->	Ø3*				PNP	2m (6.5') axial cable	Figure 1
PY4-AN-1A	<-->	4mm				NPN	2m (6.5') axial cable	Figure 2
PY4-AP-1A	<-->	4mm				PNP	2m (6.5') axial cable	Figure 2
Extended Distance								
PY3-AN-3A	<-->	Ø3*	1mm (0.039in)	Shielded	N.O.	NPN	2m (6.5') axial cable	Figure 1
PY3-AP-3A	<-->	Ø3*				PNP	2m (6.5') axial cable	Figure 1
PY4-AN-3A	<-->	4mm				NPN	2m (6.5') axial cable	Figure 2
PY4-AP-3A	<-->	4mm				PNP	2m (6.5') axial cable	Figure 2

*Smooth barrel, no threads

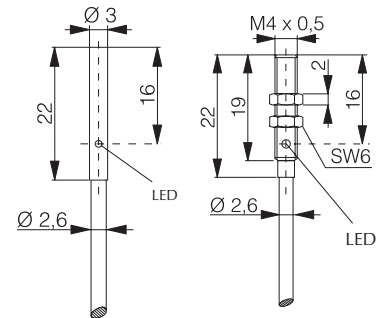
Specifications	Ø3		M4	
	Standard Distance		Extended Distance	
Type	Shielded			
Operating Distance	0.6mm (0.024in)		1mm (0.039in)	
Material Correction Factors	**See Material Influence table #1			
Differential Travel	≤10%			
Repeat Accuracy	≤5%			
Operating Voltage	10-30VDC			
Ripple	≤20%			
No-load Supply Current	≤10mA			
Load Current	≤100mA			
Leakage Current	≤10µA		≤0.1mA	
Voltage Drop	≤2.0 V			
Output Type	NPN or PNP/N.O. only/three wire			
Switching Frequency	5kHz		3kHz	
(tv) Time Delay Before Availability	10ms			
Input Voltage Transient Protection	Up to 30VDC			
Input Power Polarity Reversal Protection	Yes			
Output Power Short-Circuit Protection	Yes (switch auto-resets after overload is removed)			
Temperature Range	-25° to +70° C (-13° to 158° F)			
Temperature Drift	10% Sr			
Protection Degree (DIN 40050)	IEC IP67			
LED Indicators	Yellow (output energized)			
Housing Material	Stainless steel			
Sensing Face Material	Polyester			
Tightening Torque	0.8Nm (7.08-in./lbs.)			
Weight	23g (0.81 oz)		26g (0.92oz)	

**See Material Influence table #1 on page 17-53

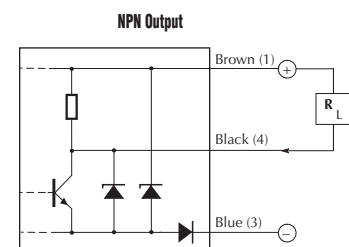
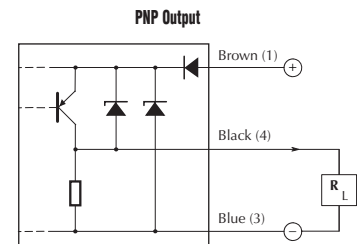
Dimensions

Figure 1

Figure 2



Wiring diagrams



Cables and Accessories

Cables and accessories can be found starting on page 17-48.