

# AT Series Inductive Proximity Sensors



## M30 (30 mm) metal – DC

- 24 models available
- Standard and extended distance models available
- 2-wire and 3-wire models
- Axial cable or M12 quick-disconnect models
- LED status indicators are visible 360° around the cylinder
- Complete overload protection
- IP67 rated

AT Series M30 DC Inductive Prox Selection Chart								
Part Number	Sensing Range	Housing	Output State	Logic	Connection	Wiring	Dimensions	
<b>Standard Distance</b>								
AT1-AN-1A	<-->	10mm (0.394in)	Shielded	N.O.	NPN	2m (6.5') axial cable	Diagram 1	Figure 1
AT1-AP-1A	<-->				PNP	2m (6.5') axial cable	Diagram 1	Figure 1
AT1-A0-1A	<-->				Sink/source	2m (6.5') axial cable	Diagram 2	Figure 1
AT1-AN-1H	<-->				NPN	M12 (12mm) connector	Diagram 1	Figure 2
AT1-AP-1H	<-->				PNP	M12 (12mm) connector	Diagram 1	Figure 2
AT1-A0-1H	<-->				Sink/source	M12 (12mm) connector	Diagram 2	Figure 2
AT1-AN-2A	<-->	15mm (0.591in)	Unshielded	N.O.	NPN	2m (6.5') axial cable	Diagram 1	Figure 1
AT1-AP-2A	<-->				PNP	2m (6.5') axial cable	Diagram 1	Figure 1
AT1-A0-2A	<-->				Sink/source	2m (6.5') axial cable	Diagram 2	Figure 1
AT1-AN-2H	<-->				NPN	M12 (12mm) connector	Diagram 1	Figure 2
AT1-AP-2H	<-->				PNP	M12 (12mm) connector	Diagram 1	Figure 2
AT1-A0-2H	<-->				Sink/source	M12 (12mm) connector	Diagram 2	Figure 2
<b>Extended Distance</b>								
AT1-AN-3A	<-->	15mm (0.591in)	Shielded	N.O.	NPN	2m (6.5') axial cable	Diagram 1	Figure 1
AT1-AP-3A	<-->				PNP	2m (6.5') axial cable	Diagram 1	Figure 1
AT1-A0-3A	<-->				Sink/source	2m (6.5') axial cable	Diagram 2	Figure 1
AT1-AN-3H	<-->				NPN	M12 (12mm) connector	Diagram 1	Figure 2
AT1-AP-3H	<-->				PNP	M12 (12mm) connector	Diagram 1	Figure 2
AT1-A0-3H	<-->				Sink/source	M12 (12mm) connector	Diagram 2	Figure 2
AT1-AN-4A	<-->	20mm (0.787in)	Unshielded	N.O.	NPN	2m (6.5') axial cable	Diagram 1	Figure 1
AT1-AP-4A	<-->				PNP	2m (6.5') axial cable	Diagram 1	Figure 1
AT1-A0-4A	<-->				Sink/source	2m (6.5') axial cable	Diagram 2	Figure 1
AT1-AN-4H	<-->				NPN	M12 (12mm) connector	Diagram 1	Figure 2
AT1-AP-4H	<-->				PNP	M12 (12mm) connector	Diagram 1	Figure 2
AT1-A0-4H	<-->				Sink/source	M12 (12mm) connector	Diagram 2	Figure 2

## Dimensions

Figure 1

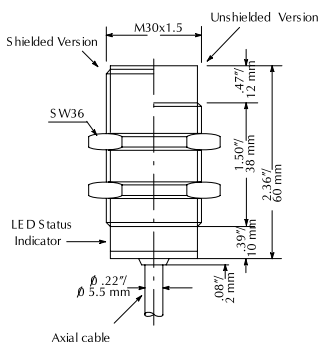
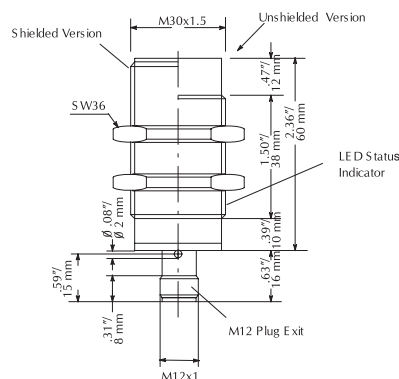


Figure 2



### Cables and Accessories

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

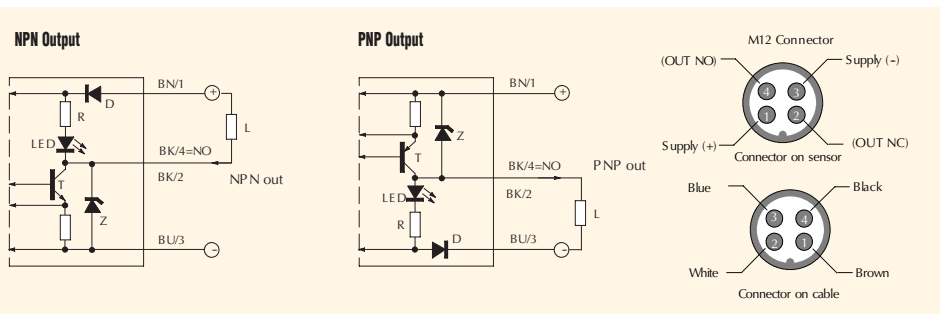
# AT Series Inductive Proximity Sensors

Specifications	Standard Distance Models		Extended Distance Models	
	Shielded	Unshielded	Shielded	Unshielded
<b>Type</b>	Shielded	Unshielded	Shielded	Unshielded
<b>Material Correction Factors</b>	*See Material Influence table #1			
<b>Differential Travel</b>	2 to 10%		2 to 15%	
<b>Repeat Accuracy</b>	3 wire: 2% / 2 wire: 5%		2 and 3 wire: 5%	
<b>Operating Voltage</b>	10-30VDC			
<b>Ripple</b>	≤10%			
<b>Load Current</b>	3 wire: ≤400mA / 2 wire: 3-100mA		2 and 3 wire: ≤400mA	
<b>Leakage Current</b>	3 wire: ≤10µA / 2 wire: ≤0.8mA max.		3 wire ≤8µA / 2 wire: ≤0.8mA max.	
<b>Voltage Drop</b>	3 wire: ≤1 volt max. / 2 wire: ≤2.8V		3 wire: ≤1 volt max. / 2 wire: ≤2.8V	
<b>Output Type</b>	Three wire: NPN or PNP/N.O. (normally open) / Two wire: sink/source, N.O. only			
<b>Switching Frequency</b>	3 wire: 200Hz / 2 wire: 150Hz		2 and 3 wire: 150Hz	
<b>(tv) Time Delay Before Availability</b>	3 wire: 100ms / 2 wire: 50ms		3 wire: 100ms / 2 wire: 50ms	
<b>Input Voltage Transients Protection</b>	Yes, as long as the transient peak does not exceed 30VDC			
<b>Input Power Polarity Reversal Protection</b>	Yes			
<b>Output Power Short-Circuit Protection</b>	Yes (switch auto-resets after overload is removed)			
<b>Temperature Range</b>	-25° to + 70° C (-13° to 158° F)			
<b>Temperature Drift</b>	10% Sr			
<b>Protection Degree (DIN 40050)</b>	IEC IP67			
<b>LED Indicators</b>	Yellow (N.O. output energized)			
<b>Housing Material</b>	Nickel-plated brass			
<b>Sensing Face Material</b>	PBT			
<b>Tightening Torque</b>	60Nm (44lbs./ft.)			
<b>Weight</b>	A type (w/ cable): 180g (6.35oz) H type: 110g (3.88oz)			

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

## Wiring diagrams

### Diagram 1



### Diagram 2

