

# Inductive Proximity Sensor L30 Series

DC or AC; 10 or 15 mm Sensing; NPN or PNP; 2 or 3-Wire



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Mercury Sensor Products Quick Selection Guide					
Technology:	Inductive. Responsive to metal proximity.	Output Options:	Normally Closed or Normally Open		
Output Type:	NPN or PNP	Connection:	Cable leads. 2 or 3-Wire		
Sensing Distance:	Shielded 10 mm	Housing - Body:	Metal		
	Non-shielded 15 mm	Package / Case	Cylinder, threaded, M30		
Supply Voltage: / Current	+10V to +30V DC: 8 mA 90 ~ 250V AC: 2.5 mA	Interface:	None		
		Indicator:	LED		

## Features:

- Wide range of operating temperature, hot side to +85°C
- IP67 environmental rating with durability, versatility and reliability
- Non-contact object detection with 2 or 3 pre-wired cable leads
- NPN or PNP open collector output
- Also available in M8, M12, M18 and M24 cylinder sizes and various sensing distances for application flexibility.



## Specifications:

	Shielded (order code "S")	Non-shielded (order code "T")
<b>Package / Case</b>	Metal Cylinder. Threaded. M30.	
<b>Power Supply Voltage (Operating Voltage Range)</b>	+10 ~ +30 V DC. Ripple (p-p): 10% max. 90 ~ 250 V AC.	
<b>Standard Sensing Object Metal and Size</b>	Iron. 30x30x1 mm.	Iron. 60x60x1 mm.
<b>Correction Factor</b>	Metal Iron Stainless Steel Brass Aluminum Copper	Correction Factors 1.00 0.70 0.40 0.30 0.25
<b>Sensing Distance</b>	10 mm ±10% at +25°C	15 mm ±10% at +25°C
<b>Detectable Object</b>	Ferrous metal (The sensing distance decreases with non-ferrous metal)	

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<b>Output Types.</b>	NPN. Open collector	Normally Closed; order code "C"
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(With Sensing Object Approaching)	(order code "N")	Normally Open; order code "E"
	PNP. Open collector (order code "P")	Normally Closed; order code "C"
		Normally Open; order code "E"
Load Current	300 mA max. (30 VDC max.)	
Power Supply Current Consumption	DC: 8 mA max. AC: 2.5 mA max.	
Leakage Current	0.8 mA max.	
Residual Voltage	2V max. (Under load current of 300 mA and 2 m cable length)	
Response Frequency	DC: 500 Hz typical. An averaged value.	
	AC: 20 Hz	
Ambient Temperature Range	Operating	-25 °C to +85 °C
	Storage	-40 °C to 85 °C (with no icing or condensation)
Ambient Humidity	35%~95% (with condensation). Operating and storage.	
Temperature Influence	±15% max. of sensing distance at 23°C within operating temperature range.	
Voltage Influence	±1% max. of sensing distance at 24 VDC ±15%.	
Insulation Resistance	50 MΩ min. At 500 VDC between current carrying parts and case.	
Degree of Protection	IP67. IEC 60529.	
Protection Circuit	Surge suppressor.	
Connecting Method	Pre-wired. Cable leads. 2 meters. 26 AWG. 4 mm diameter. Conductor strand: 7/34. Insulator: PVC.	
Indicator	Operation indicator. Red LED.	
Materials	Case: Chrome plated brass Sensing surface: PBT. Orange color. Clamping nuts: Chrome plated brass Toothed washer: Zinc plated iron	
Unit Weight	Shielded models: 140 grams approx. Non-shielded models: 150 grams approx.	

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## How to Order:

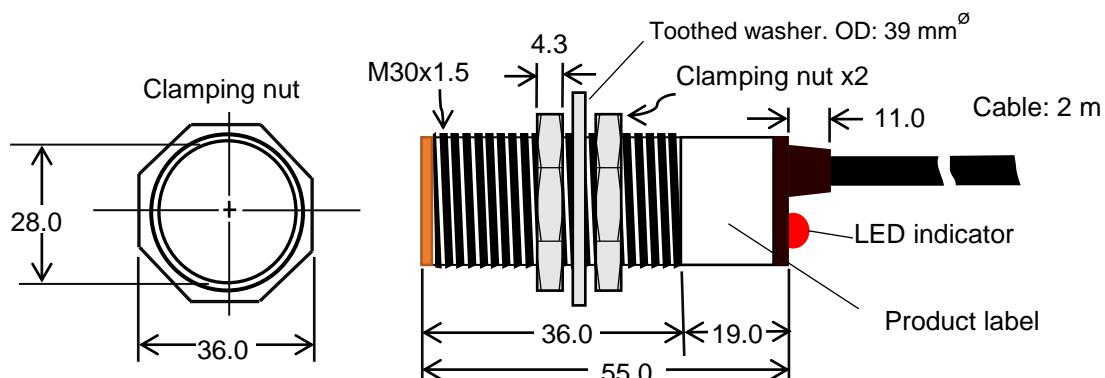
Part Number example: L30S3N-10EC

“L30”: Product series	“T”: for non-shielded “S”: for shielded	“3”: for 3-wire “2”: for 2-wire	“N”: for NPN output; “P”: for PNP output “ ”: blank for 2-wire models
L30	S	3	N A — 10 E C
“A”: AC supply “ ”: Blank. DC supply	“10”: 10 mm sensing distance “15”: 15 mm sensing distance	“E”: normally open “C”: normally closed	“C”: Cable leads

## Available Standard Models:

		Part Number	
DC Power Supply	NPN	Normally Open	Shielded L30S3N-10EC
		Non-Shielded	L30T3N-15EC
	Normally Closed	Shielded	L30S3N-10CC
		Non-Shielded	L30T3N-15CC
	PNP	Normally Open	Shielded L30S3P-10EC
		Non-Shielded	L30T3P-15EC
	Normally Closed	Shielded	L30S3P-10CC
		Non-Shielded	L30T3P-15CC
AC Power	2-Wire	Normally Open	Shielded L30S2-10EC
		Non-Shielded	L30T2-15EC
		Normally Closed	Shielded L30S2-10CC
		Non-Shielded	L30T2-15CC
	2-Wire	Normally Open	Shielded L30S2A-10EC
		Non-Shielded	L30T2A-15EC
	Normally Closed	Shielded	L30S2A-10CC
		Non-Shielded	L30T2A-15CC

## L30 Outline Dimensions; Shielded Models (unit: mm)



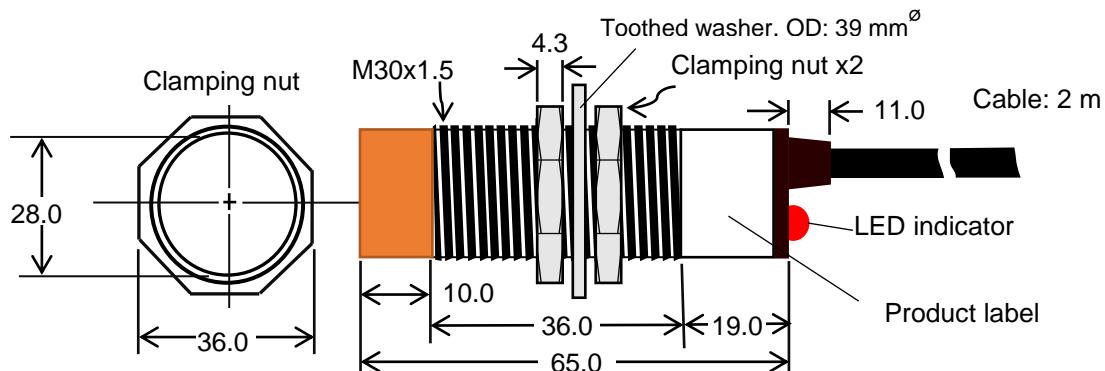
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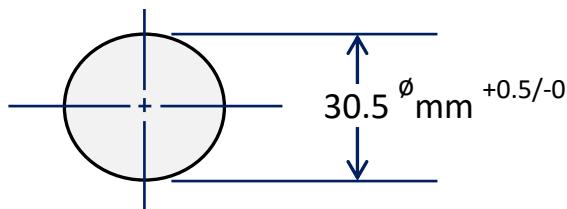
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## L30 Outline Dimensions; Non-Shielded Models ( unit: mm)

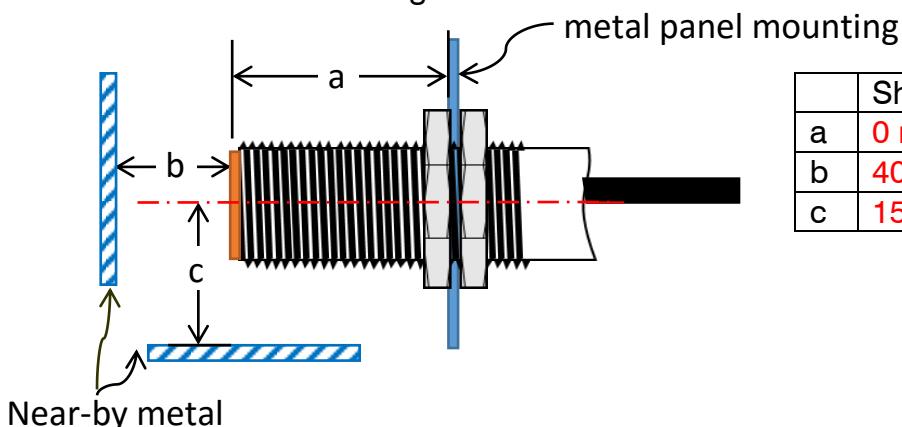


## Sensor Mounting and Surrounding Metal Influence

Mounting hole cutout dimensions



**Surrounding metal interference:** Following minimum clearance requirement must be followed to minimize the surrounding metal interference.



	Shielded	Non-shielded
a	0 mm	30 mm
b	40 mm	70 mm
c	15 mm	45 mm

## Warranty

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