

Background Suppression MINI Laser Sensor LA-X Series



Ask SENPUM

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Fast Delivery Standard Models



Most products are in stock. Upon receiving your order, we will arrange prompt shipment to minimize your downtime-related costs and losses.



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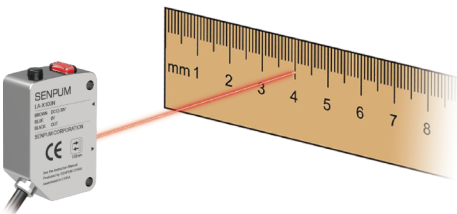
Ultra-small size for wider applications

Extremely space-saving installation.



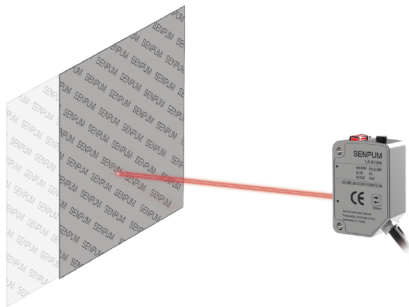
Ultra-small spot, ultra-high detection performance

Ultra-small laser spot for stable detection of various targets.



Competent detection in complex environments, with strong background suppression

Small gaps can be detected even if the target is the same or similar to the background color.



Excellent impact resistance of the metal housing

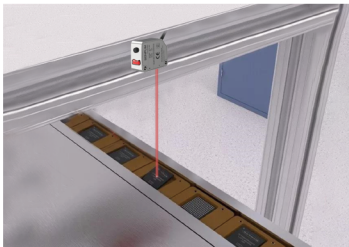
Imported zinc alloy is used, which makes it stronger and more durable.



More Features

- High sensitivity and compact size.
- Metal housing for better impact resistance.
- Push-button setting, easy to use.
- High-quality red laser light source.

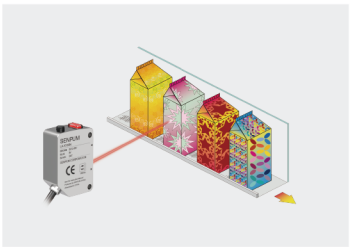
Applications



Detecting the presence or absence of small workpieces



Detecting targets with the same or similar background color



Detecting the presence or absence of colored boxes

Product List

Appearance	Detection distance	Spot diameter	Output type	Model
	 300 mm	Approx. Φ 2.2 mm at 300 mm	NPN	LA-X300N
			PNP	LA-X300P
	 100 mm	Approx. Φ 1.0 mm at 100 mm	NPN	LA-X100N
			PNP	LA-X100P

Specifications

Type		Standard spot	Small spot
Model	NPN	LA-X300N	LA-X100N
	PNP	LA-X300P	LA-X100P
Detection distance		300 mm	100 mm
Spot size		Approx. Φ 2.2 mm at 300 mm	Approx. Φ 1.0 mm at 100 mm
Light source	Type	Red laser (wavelength 660 nm)	
	Laser classification	Class 1 laser products (IEC60825-1)	
Response time		1.5 ms	
Output type		NPN or PNP open collector output N.O./N.C. switchable	
Control output	NPN output	Maximum load current: 100 mA; Residual voltage: less than 1.5 V	
	PNP output	Maximum load current: 100 mA; Residual voltage: less than 1.5 V	
Power voltage		12 to 30 VDC $\pm$ 10%, Ripple voltage (P-P): 10% max.	
Power consumption		250 mW or less (10 mA or less at 24 V, 15 mA or less at 12 V)	
Circuit protection		Power reverse connection protection, power surge protection, output short circuit protection	
Protection class		IP67 (IEC60529)	
Ambient light		Incandescent lamp: Maximum 10,000 lux; Sunlight: Maximum 10,000 lux	
Ambient temperature		-20 to +55 °C (no freezing)	
Ambient humidity		35 to 85% RH (no condensation)	
Vibration resistance		10 to 55 Hz, Compound amplitude 1.5 mm, 2 hours in each of the X, Y, and Z directions	
Shock resistance		1,000 m/s ² , 3 times in each of the X, Y, and Z directions	
Housing		Housing: Zinc alloy; Indicator cover: PC; Lens cap: PMMA; Button: ABS; Cable (2 m cable type only): PPVC	
Housing size (H*W*L mm)		33.13 x 11.4 x 23.33	
Weight		Approx. 59 g (including cable)	

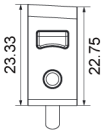
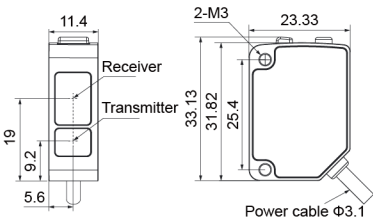
*1 Detection distances are tested against a white cardboard background.

Dimensions

LA-X300N/P LA-X100N/P

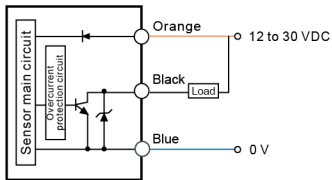
N-100 (sold separately)

Unit: mm



I/O Circuit Diagrams

NPN output type



PNP output type

