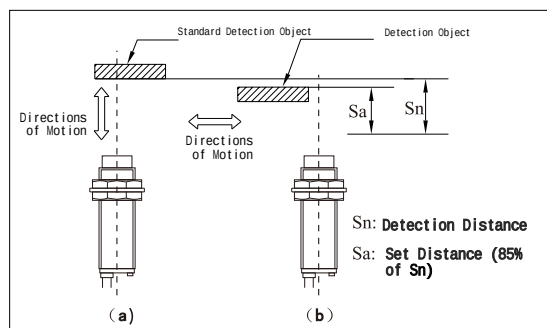


V.Outline Dimension Drawings (Unit: millimeters)

Outline Dimensions	Flush - Mounted Type		Non - Flush - Mounted Type				
Type	Model	a	b	c	d	e	f
Flush - Mounted	LJA8S Series	41.7 ± 0.5	35 ± 0.5	—	3.5	M8 × 1	AF 12
Non - Flush - Mounted	LJA8MS Series	45.2 ± 0.5		4			
Flush - Mounted	LJA12S Series	47.0 ± 0.5	35 ± 0.5	—	3.9	M12 × 1	AF 17
Non - Flush - Mounted	LJA12MS Series	47.0 ± 0.5	28 ± 0.5	8			
Flush - Mounted	LJA18S Series	51.8 ± 0.5	40 ± 0.5	—	4	M18 × 1	AF 24
Non - Flush - Mounted	LJA18MS Series	56.0 ± 0.5	33 ± 0.5	12			
Flush - Mounted	LJA30S Series	52.0 ± 0.5	40 ± 0.5	—	4.7	M30 × 1.5	AF 35.8
Non - Flush - Mounted	LJA30MS Series	60.0 ± 0.5	34 ± 0.5	15			

VI.Set Distance and Detection Distance



1) Please set the operating distance of the switch within 85% of the standard operating distance (Sn) to avoid the switch's operation being affected by factors such as temperature and voltage.

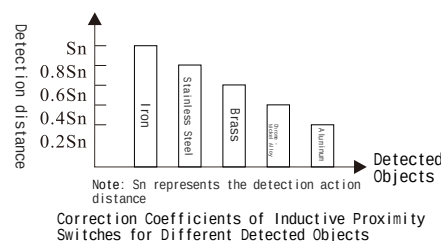
2) Detection distance: It refers to the distance from the reference position (reference plane) to the point where the action (reset) is detected when testing the object in the specified manner.

3) Set distance (Sa):
 $Sa = (Sn) \times 85\%$
 Example: For LJA18MS - 8N1
 $Sa = 8mm \times 0.85 = 6.8mm$

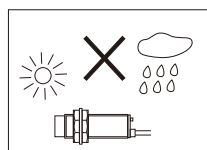
VII.Relationship Between Detected Object Material and Detection Distance

1.When detecting different objects, the proximity switch exhibits different operating distances. Refer to the correction coefficients for inductive proximity switches with various detected objects in the diagram on the right.

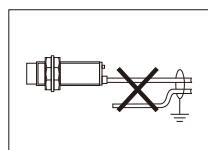
2.When the switch is used for measuring action frequency or in high - speed scenarios, set its operating distance to $\frac{1}{2}$ of the standard operating distance. This setting allows the switch to achieve the maximum action frequency.



VIII.Instructions for Incorrect Usage Conditions



Do not use the product in outdoor or water - splashing environments. Try to avoid outdoor use as much as possible.



Do not route the product's cables together with power lines or power - cable conduits. They should be wired separately.

IX.Requirements of Proximity Switches for Power Supply and Load

- 1.Surge Protection:If the proximity switch is used near sources of surge interference (e.g., during welding operations with electric welders), an additional surge absorption device must be installed.
- 2.High - Current Loads:When connecting to high - current loads (e.g., light bulbs, motors), the initial resistance decreases due to current impact. Only after the current increases does the load resistance rise and the current return to normal. This current impact may damage the proximity switch. Use a small - sized relay for protection.
- 3.Power Supply Type:Proximity switches cannot be powered by auto - coupled transformers. Isolation transformers must be used instead.
- 4.Wiring Length:Keep the connection wires of proximity switches as short as possible to reduce interference.

X.Maintenance and Inspection

To ensure the long - term stable operation of the proximity switch, similar to general controllers, conduct the following regular inspections:

- 1.Check if the installation positions of the detected object and the proximity switch are shifted, loose, or deformed.
- 2.Inspect the wiring and connection points for looseness, poor contact, or wire breakage.
- 3.Check the detection surface for accumulated substances such as adhering metal dust.
- 4.Examine the operating temperature and surrounding environmental conditions for abnormalities.

XI.Environmental Protection and Other Legal Requirements

To protect the environment, when this product or its components are discarded, they shall be properly disposed of as industrial waste; or handed over to recycling and treatment stations for classified disassembly, recycling, and reuse in accordance with relevant national regulations.

XII.Ordering Instructions (Standard Cable Length: 2 Meters)

- 1.LJA18S - 5N1: 2 - meter cable, 100 pieces;
- 2.LJA30S - 10N1: 2 - meter cable, 100 pieces.

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国家高新技术企业 浙江省知名商标

C-Lin 欣灵

使用说明书
 Products Instructions



LJAS Cylindrical Upgraded Version Inductive Proximity Switch

Thank you very much for using the C-Lin Brand sensor. Please read the instruction manual before using the product!

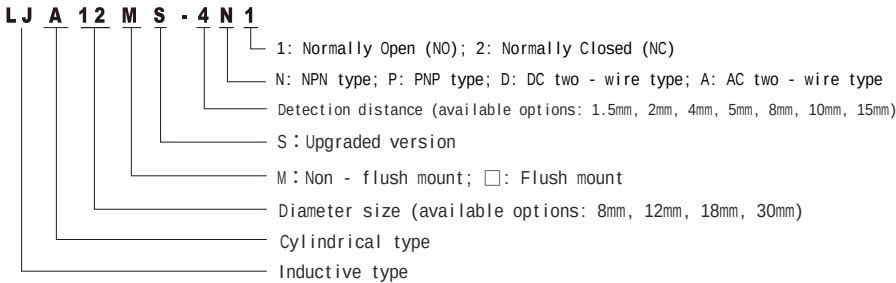
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I.Overview

Proximity switches are a type of displacement sensor with switch output, featuring output types such as NPN, PNP, normally open, normally closed, and relay outputs. They can detect both transparent and opaque objects , including metals (e.g., iron, steel, copper), plastics, glass, wood, water, paper, and magnets. These switches can be connected to PLCs, servo controllers, frequency converters, counters, and controllers to achieve automatic signal input. They are widely used in industries such as machinery, textiles, light industry, papermaking, printing, and packaging.

Inductive proximity switches: Detect metallic objects (e.g., iron, steel, copper);
Capacitive proximity switches: Detect any objects (e.g., glass, metal, plastic, water, oil, paper);
Hall-effect proximity switches: Detect magnetic metals (e.g., magnets);
This series of inductive proximity switches complies with the GB/T 14048.10 standard.

II.Model Explanation



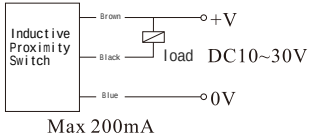
III.Model Types and Technical Data

Form			LJA8□S Series		LJA12□S Series	
DC Type	NPN	NO	LJA8S-1.5N1	LJA8MS-2N1	LJA12S-2N1	LJA12MS-4N1
		NC	LJA8S-1.5N2	LJA8MS-2N2	LJA12S-2N2	LJA12MS-4N2
	PNP	NO	LJA8S-1.5P1	LJA8MS-2P1	LJA12S-2P1	LJA12MS-4P1
		NC	LJA8S-1.5P2	LJA8MS-2P2	LJA12S-2P2	LJA12MS-4P2
	Two - wire	NO	LJA8S-1.5D1	LJA8MS-2D1	LJA12S-2D1	LJA12MS-4D1
		NC	LJA8S-1.5D2	LJA8MS-2D2	LJA12S-2D2	LJA12MS-4D2
AC Type	Two - wire	NO	LJA8S-1.5A1	LJA8MS-2A1	LJA12S-2A1	LJA12MS-4A1
		NC	LJA8S-1.5A2	LJA8MS-2A2	LJA12S-2A2	LJA12MS-4A2
Detection Distance			1.5mm	2mm	2mm	4mm
Response Frequency			N - type/P - type : 1200Hz、 DC: 400Hz、AC: 25Hz		N - type/P - type : 1200Hz、 DC: 200Hz、AC: 25Hz	
Model			LJA18□S Series		LJA30□S Series	
DC Type	NPN	NO	LJA18S-5N1	LJA18MS-8N1	LJA30S-10N1	LJA30MS-15N1
		NC	LJA18S-5N2	LJA18MS-8N2	LJA30S-10N2	LJA30MS-15N2
	PNP	NO	LJA18S-5P1	LJA18MS-8P1	LJA30S-10P1	LJA30MS-15P1
		NC	LJA18S-5P2	LJA18MS-8P2	LJA30S-10P2	LJA30MS-15P2
	Two - wire	NO	LJA18S-5D1	LJA18MS-8D1	LJA30S-10D1	LJA30MS-15D1
		NC	LJA18S-5D2	LJA18MS-8D2	LJA30S-10D2	LJA30MS-15D2
AC Type	Two - wire	NO	LJA18S-5A1	LJA18MS-8A1	LJA30S-10A1	LJA30MS-15A1
		NC	LJA18S-5A2	LJA18MS-8A2	LJA30S-10A2	LJA30MS-15A2
Detection Distance			5mm	8mm	10mm	15mm
Response Frequency			N - type/P - type : 600Hz、 DC: 200Hz、AC: 25Hz		N - type/P - type : 100Hz、 DC: 100Hz、AC: 25Hz	

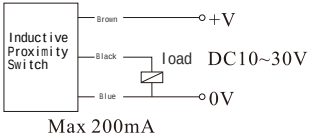
Operating Voltage		DC type: Rated voltage DC12~24V (operating range DC10~30V); AC type: M8: AC90~250V; M12~M30: AC24~250V
Operating Current		Load current ≤200mA
Leakage Current		≤0.1mA
Voltage Drop		NPN type: ≤1.5V; PNP type: ≤2.5V;DC two - wire: ≤4V; AC two - wire: ≤7V
Consumption Current		≤10mA
Hysteresis		<15%
Repeatability		<3%
Output Indication		Power (green indicator), Action (red indicator), dual - color alternating illumination
Protection Circuit		Polarity protection, over - current protection, surge protection
Ambient Temperature		Operating: -25~+70℃ (no freezing);Storage: -40~+85℃ (no freezing, no condensation)
Ambient Humidity		35~95%RH
Temperature Influence (Temperature Drift)		Within -25~+70℃, the detection distance deviates within ±10% of the value at +23℃
Shock		Endurance: 500m/s ² (approx. 50g), 10 times in each of the X, Y, Z directions.
Protection Grade		IP67
Withstand Voltage		DC type: AC500V;- AC type: AC1500V, 50/60Hz, 1min (between charged parts and the housing).
Insulation Resistance		Above 50MΩ (measured with DC500V)
Vibration		Endurance: 10~55Hz, resonant amplitude 1.5mm, 2 hours in each of the X, Y, Z directions.
Connection Method		Wire - lead type, standard length: 2m.
Material	Housing	Brass with chrome plating
	Detection Surface	PBT

IV.Classification by Output Configuration

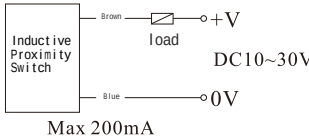
1.DC 3 - Wire NPN Type (Normally Open/Closed)



2.DC 3 - Wire PNP Type (Normally Open/Closed)



3.AC 2 - Wire Type (Normally Open/Closed)



Note: “NO ” = Normally Open
“NC ” = Normally Closed

4.AC 2 - Wire Type (Normally Open/Closed)

