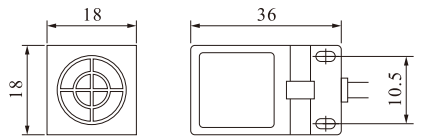
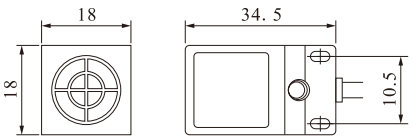
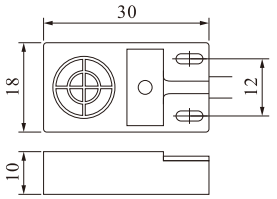
Outline Dimension Drawing of LJE18CM Series



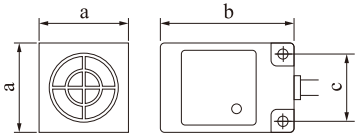
Outline Dimension Drawing of SN04 Series



Outline Dimension Drawing of TL-W5 Series

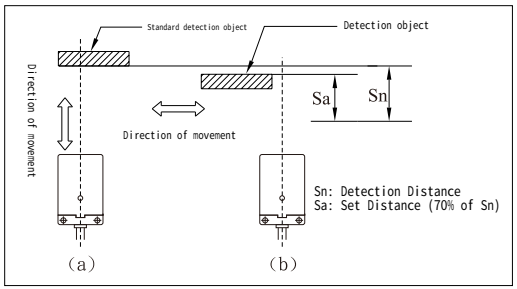


Outline Dimension Drawing of LJE25M, LJE30M, LJE40M Series



Model	a	b	c
LJE25M	25	38. 5	18
LJE30M	30	52. 5	22
LJE40M	40	53	29.5

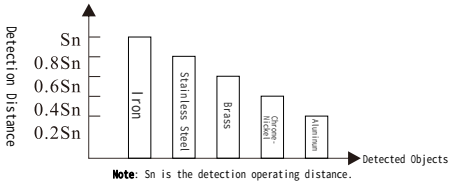
V.Set Distance and Detection Distance



1) Please set the operating distance of the switch within 70% of the standard operating distance (Sn) to prevent the switch operation from being affected by factors like temperature and voltage.
2) Detection distance: When detecting an object by the specified method, it is the distance from the reference position (reference plane) to the measured operation (reset).
3) Set distance (Sa):Sa = (Sn) × 70%
Example: LJE30M - 10N1
Sa = 10mm × 0.7 = 7mm

VI.Relationship between the Material of the Detected Object and the Detection Distance

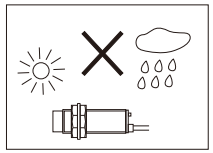
1.When detecting different objects, the switch has different operating distances. Please refer to the correction coefficients of the inductive proximity switch for different detected objects in the right figure.
2.When the switch is used to measure the operating frequency or in high-speed scenarios, please set the operating distance of the switch beyond 1/2 of the standard operating distance. At this position, the switch can achieve the maximum operating frequency.



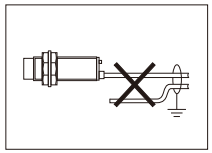
Note: Sn is the detection operating distance.

Correction Coefficients of Inductive Proximity Switch for Different Detected Objects

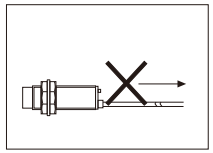
VII.Explanation of Incorrect Usage Conditions



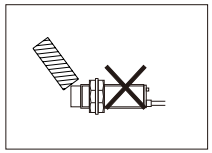
◀ Do not use in outdoor environments or areas where water splashes. Try to avoid outdoor use as much as possible.



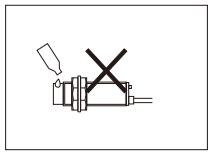
◀ Do not route in the same conduit as power lines or power cables. Separate wiring should be adopted.



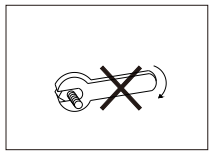
◀ Do not pull the power cord of the proximity switch with excessive force.



◀ Do not strike the detection surface with hard objects.



◀ Please do not use the proximity switch in places with corrosive substances.



◀ Do not tighten with excessive force; please use washers when tightening.

VIII.Requirements for Power Supply and Load of Proximity Switch

1.This product cannot be used within 100ms after the power supply is connected.
2.Surge protection: When the proximity switch is used near areas with surge interference (e.g., welding operations of electric welders), please add a surge absorption device.
3.When connecting a large-current load (such as a light bulb or motor), the initial resistance decreases due to current impact. Only when the current increases will the load resistance rise and the current return to normal. Such current impact can damage the proximity switch, so use a small relay to convert and protect the load.
4.Proximity switches cannot be powered by autotransformers; isolation transformers should be used.
5.The connecting wires of proximity switches should be as short as possible to reduce noise interference.
6.The power cord of AC/DC two-wire proximity switches cannot be directly connected to the power supply; a load must be connected in series, otherwise the proximity switch will be damaged.

IX.Maintenance and Inspection

To ensure the long-term stable operation of proximity switches, perform the following regular inspections (similar to general controllers):
1.Check whether the position of the detected object and the installation position of the proximity switch are shifted, loose, or deformed.
2.Check whether wiring and connection parts are loose, have poor contact, or are broken.
3.Check whether there are deposits (such as attached metal dust) on the detection surface.
4.Check whether the operating temperature and surrounding environmental conditions are abnormal.

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RECYCLABLE

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使用说明书
Products Instructions

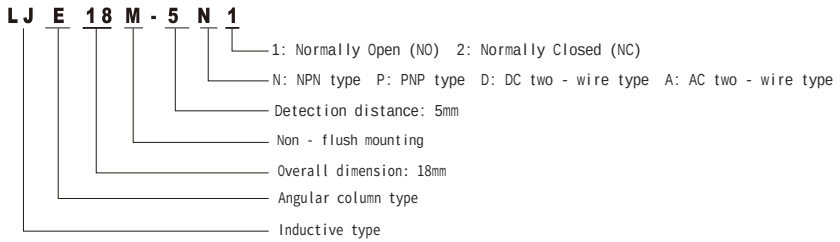
LJE/SN04/PS/PL/TL

Square Column Type Inductive Proximity Switch

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

16A011E1

I .Model Explanation



II.Model Types and Technical Data

Type			LJE17M Series	LJE18M Series	LJE18CM Series	LJE25M Series	LJE30M Series
DC Type	NPN	NO	LJE17M-5N1	LJE18M-5N1	LJE18CM-5N1	LJE25M-8N1	LJE30M-10N1
		NC	LJE17M-5N2	LJE18M-5N2	LJE18CM-5N2	LJE25M-8N2	LJE30M-10N2
	PNP	NO	LJE17M-5P1	LJE18M-5P1	LJE18CM-5P1	LJE25M-8P1	LJE30M-10P1
		NC	LJE17M-5P2	LJE18M-5P2	LJE18CM-5P2	LJE25M-8P2	LJE30M-10P2
	Two-wire	NO	LJE17M-5D1	LJE18M-5D1	LJE18CM-5D1	LJE25M-8D1	LJE30M-10D1
		NC	LJE17M-5D2	LJE18M-5D2	LJE18CM-5D2	LJE25M-8D2	LJE30M-10D2
AC Type	Two-wire	NO	LJE17M-5A1	LJE18M-5A1	LJE18CM-5A1	LJE25M-8A1	LJE30M-10A1
		NC	LJE17M-5A2	LJE18M-5A2	LJE18CM-5A2	LJE25M-8A2	LJE30M-10A2
Detection Distance			5mm±15%	5mm±15%	5mm±15%	8mm±15%	10mm±15%
Response Frequency		DC	0.6KHz	0.6KHz	0.6KHz	0.2KHz	0.4KHz
		AC	25Hz	25Hz	25Hz	25Hz	25Hz

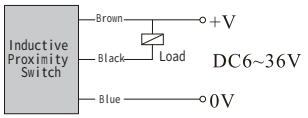
Type			LJE40M Series	PS-05 Series	PS-08 Series	PL-05 Series	PL-08 Series	SN04 Series	TL Series
DC Type	NPN	NO	LJE40M-20N1	PS-05N	PS-08N	PL-05N	PL-08N	SN04-N	TL-W5MC1
		NC	LJE40M-20N2	PS-05N2	PS-08N2	PL-05N2	PL-08N2	SN04-N2	TL-W5MC2
	PNP	NO	LJE40M-20P1	PS-05P	PS-08P	PL-05P	PL-08P	SN04-P	TL-W5MB1
		NC	LJE40M-20P2	PS-05P2	PS-08P2	PL-05P2	PS-08P2	SN04-P2	TL-W5MB2
	Two-wire	NO	LJE40M-20D1	PS-05D1	PS-08D1	PL-05D1	PL-08D1	SN04-E	TL-W5MD1
		NC	LJE40M-20D2	PS-05D2	PS-08D2	PL-05D2	PL-08D2	SN04-E2	TL-W5MD2
AC Type	Two-wire	NO	LJE40M-20A1	PS-05A1	PS-08A1	PL-05A1	PL-08A1	SN04-Y	
		NC	LJE40M-20A2	PS-05A2	PS-08A2	PL-05A2	PL-08A2	SN04-Y2	
Detection Distance			20mm±15%	5mm±15%	8mm±15%	5mm±15%	8mm±15%	5mm±15%	5mm±15%
Response Frequency		DC	0.1KHz	0.6KHz	0.2KHz	0.6KHz	0.2KHz	0.25KHz	0.2KHz
		AC	25Hz	25Hz	25Hz	25Hz	25Hz	25Hz	25Hz

Detected Objects	Metals: iron, copper, steel, aluminum, nickel, etc. The standard detected object is A3 iron.
Differential Distance	1 - 10% of the detection distance
Power Supply Voltage	DC (NPN, PNP, two-wire) type: DC12 - 24V with ripple (P-P) less than 10% (10 - 30VDC);AC type: 90 - 250V 50/60Hz
Current Consumption	DC (NPN, PNP, two-wire) type: 8mA/12V, 15mA/24V;AC type: < 5mA
Control Output	DC (NPN/PNP) type: max. 300mA;DC (two-wire) type: max. 3 - 100mA;AC type: max. 10 - 300mA

Circuit Protection	DC (NPN, PNP, two-wire) type: Reverse connection and short-circuit protection; AC type: Surge absorption protection
Operating Ambient Temperature	-25℃～+65℃ (without freezing)
Operating Ambient Humidity	35～95%HR
Temperature Influence	-25℃～+65℃ (Within this temperature range, the detection distance variation is within ±15% at rated power supply voltage)
Voltage Influence	When the power supply voltage is within ±15% of the rated voltage, the detection distance variation is within ±15%
Residual Voltage	DC (NPN, PNP) type: Below 1V;DC (two-wire) type: Below 3V;AC (two-wire) type: Below 7V
Insulation Resistance	Above 50MΩ (between live parts and the housing, measured with DC500V)
Withstand Voltage	DC (NPN, PNP, two-wire) type: AC1000V 50/60Hz, for 1 minute (between live parts and the housing);
	AC (two-wire) type: 2000V 50/60Hz (between live parts and the housing)
Vibration	Endurance: 10-55Hz (double amplitude 1.5mm), 2 hours in each of X, Y, Z directions
Shock	Endurance: 500m/s2 (approx. 50g), 10 times in each of X, Y, Z directions
Protection Class	IP54～IP67
Material	Heat-resistant ABS

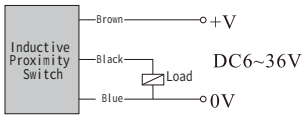
III.Classification by Output Type

1.DC 3-wire NPN type (Normally Open or Normally Closed)



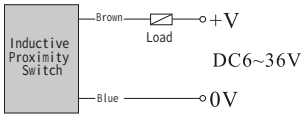
Max 300mA

2.DC 3-wire PNP type (Normally Open or Normally Closed)



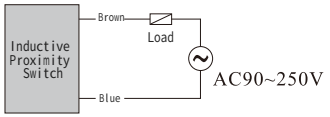
Max 300mA

3.DC 2-wire type (Normally Open or Normally Closed)



Max 300mA

4.AC 2-wire type (Normally Open or Normally Closed)

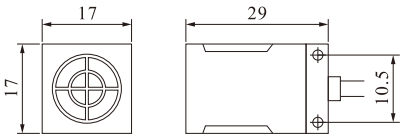


Max 300mA

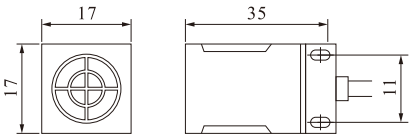
Note: NO stands for Normally Open; NC stands for Normally Closed.

IV.Outline Dimension Drawing (Unit: mm)

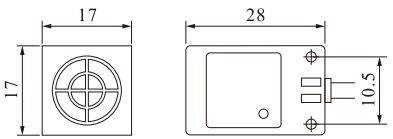
Outline Dimension Drawing of PS - 05, PS - 08 Series



Outline Dimension Drawing of PL - 05, PL - 08 Series



Outline Dimension Drawing of LJE17M Series



Outline Dimension Drawing of LJE18M Series