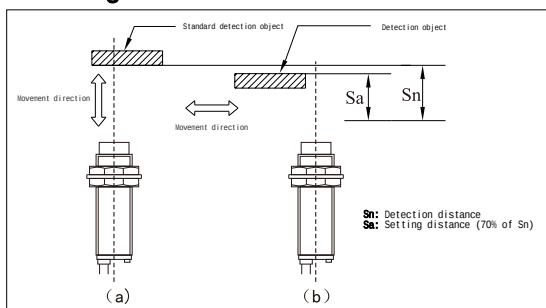


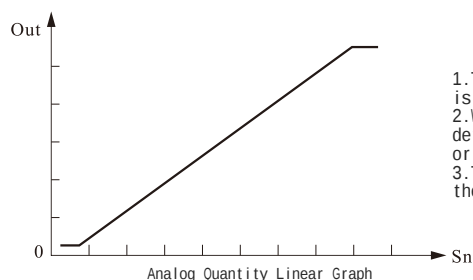
IV.Outline Dimension Diagram (Unit: mm)

Type	Model	Recessed Type		Non-recessed Type				
		a	b	c	d	e	f	g
Recessed Type	CHJ8 Series	41.5 ± 0.5	40 ± 0.5	—	3.5	M8×1	12	(15)
Non-recessed Type	CHJ8M Series	46.5 ± 0.5		4.5				
Recessed Type	CHJ12 Series	41 ± 0.5	35 ± 0.5	—	4	M12×1	17	(21)
Non-recessed Type	CHJ12M Series	41 ± 0.5	30 ± 0.5	5				
Recessed Type	CHJ18 Series	46 ± 0.5	40 ± 0.5	—	4	M18×1	24	(30)
Non-recessed Type	CHJ18M Series	46 ± 0.5	30 ± 0.5	10				
Recessed Type	CHJ30 Series	46 ± 0.5	40 ± 0.5	—	4.7	M30×1.5	36.2	—
Non-recessed Type	CHJ30M Series	52 ± 0.5	30 ± 0.5	16				

V.Setting Distance and Detection Distance

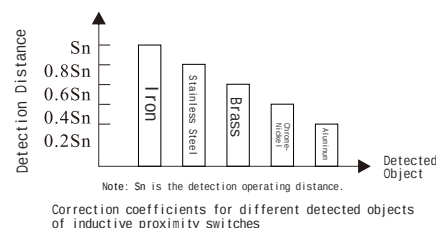


- 1) Please set the operating distance of the switch within 70% of the standard operating distance (Sn) to prevent the switch operation from being affected by temperature, voltage, etc.
- 2) Detection distance: Detect the object according to the specified method; it refers to the distance from the reference position to the measured action position.
- 3) Setting distance (Sa): $Sa = (Sn) \times 70\%$
Example: For CHJ18M - 10N1, $Sa = 10mm \times 0.7 = 7mm$
- 4) For the installation method, try to use left - right or up - down movement as much as possible, and do not use near - far movement.



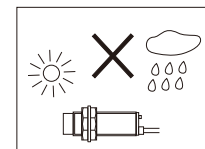
VI.Relationship between the Material of the Detected Object and the Detection Distance

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

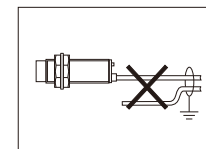


③

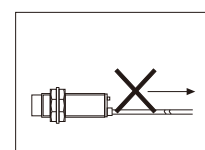
VII.Instructions for Incorrect Usage Conditions



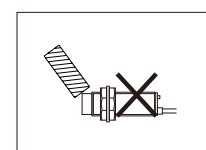
◀ Please try to avoid using it in outdoor environments or places where water splashes.



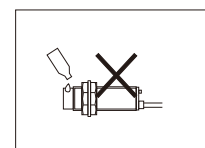
◀ Please do not route wires together with power lines or power cables in the same conduit; separate wiring should be used to reduce interference.



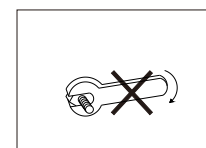
◀ Please do not pull the power cord of the proximity switch with great force.



◀ Please do not strike the detection surface with hard objects.



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



◀ Please do not tighten with excessive force; add washers when tightening.

VIII.Requirements of Proximity Switches for Power Supply and Load

- 1.This product must not be used at the moment when the power supply is turned on (within 100ms).
- 2.Surge protection: When the proximity switch is used near places with severe surge interference (such as welding by electric welders), please add an additional surge absorption device.
- 3.When the load current is greater than 200mA, please use a small relay for conversion, that is, the proximity switch controls the coil of the small relay, and the contacts of the small relay control the load.AC-type proximity switches cannot be powered by autotransformers; isolation transformers should be used instead.

④

- 5.The connecting wires of the proximity switch should be kept within 10 meters as much as possible to reduce interference.
- 6.The power cords of AC and 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 Usage Instructions

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

- 1.Check whether the installation positions of the detected object and the proximity switch are shifted, loosened, or deformed.
- 2.Check whether the wiring and connection parts are loose, have poor contact, or are broken.
- 3.Check whether there are accumulated substances (such as attached metal dust) on the detection surface.
- 4.Check whether the operating temperature and surrounding environmental conditions are abnormal.

X.Ordering Information

- 1.CHJ12M-4N1, 2 meters, 100 pieces;
- 2.CHJ18M-8U1, analog output, 100 pieces.

C-Lin

欣灵电气股份有限公司
XINLING ELECTRICAL CO., LTD.

地址：浙江省乐清经济开发区纬十九路328号
电话：0577-62735555 传真：0577-62722963
Http://www.c-lin.cn E-mail:xl@xinling.com
技术咨询：0577-62731209



RECYCLABLE

国家高新技术企业 浙江高新技术企业

C-Lin 欣灵

使用说明书
Products Instructions

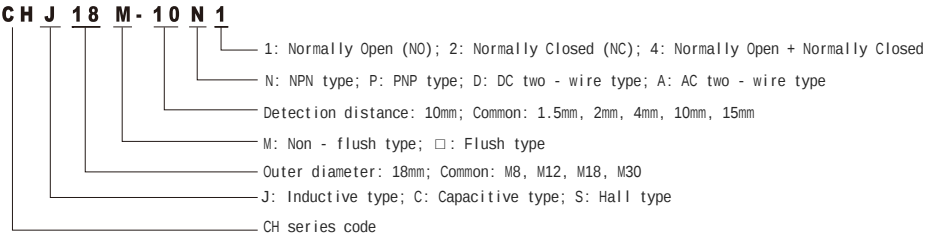
CHJ Series

Inductive Proximity Switches

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

16A024E2

I.Model Description



Note: The suffix -5UI or -10UI is for analog output (0 - 20mA and DC0 - 10V).

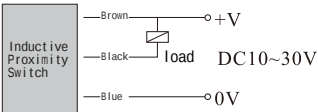
II.Model Types and Technical Data

Type			CHJ8 Series		CHJ12 Series	
Mounting Method			Flush Type	Non - flush Type	Flush Type	Non - flush Type
DC Type	NPN	NO	CHJ8-1.5N1	CHJ8M-2N1	CHJ12-2N1	CHJ12M-4N1
		NC	CHJ8-1.5N2	CHJ8M-2N2	CHJ12-2N2	CHJ12M-4N2
	PNP	NO	CHJ8-1.5P1	CHJ8M-2P1	CHJ12-2P1	CHJ12M-4P1
		NC	CHJ8-1.5P2	CHJ8M-2P2	CHJ12-2P2	CHJ12M-4P2
	Two - wire	NO	CHJ8-1.5D1	CHJ8M-2D1	CHJ12-2D1	CHJ12M-4D1
		NC	CHJ8-1.5D2	CHJ8M-2D2	CHJ12-2D2	CHJ12M-4D2
AC Type	Two - wire	NO	CHJ8-1.5A1	CHJ8M-2A1	CHJ12-2A1	CHJ12M-4A1
		NC	CHJ8-1.5A2	CHJ8M-2A2	CHJ12-2A2	CHJ12M-4A2
Detection Distance			1.5mm±10%	2mm±10%	2mm±10%	4mm±10%
Response Frequency	DC		1.5KHz	1KHz	1.5KHz	0.5KHz
	AC		20Hz		20Hz	
Type			CHJ18 Series		CHJ30 Series	
Mounting Method			Flush Type	Non - flush Type	Flush Type	Non - flush Type
DC Type	NPN	NO	CHJ18-5N1	CHJ18M-10N1	CHJ30-10N1	CHJ30M-15N1
		NC	CHJ18-5N2	CHJ18M-10N2	CHJ30-10N2	CHJ30M-15N2
		NO+NC	CHJ18-5N4	CHJ18M-10N4	CHJ30-10N4	CHJ30M-15N4
	PNP	NO	CHJ18-5P1	CHJ18M-10P1	CHJ30-10P1	CHJ30M-15P1
		NC	CHJ18-5P2	CHJ18M-10P2	CHJ30-10P2	CHJ30M-15P2
		NO+NC	CHJ18-5P4	CHJ18M-10P4	CHJ30-10P4	CHJ30M-15P4
	Two - wire	NO	CHJ18-5D1	CHJ18M-10D1	CHJ30-10D1	CHJ30M-15D1
		NC	CHJ18-5D2	CHJ18M-10D2	CHJ30-10D2	CHJ30M-15D2
	Analog		CHJ18-5UI	CHJ18M-8UI	CHJ30-10UI	CHJ30M-15UI
AC Type	Two - wire	NO	CHJ18-5A1	CHJ18M-10A1	CHJ30-10A1	CHJ30M-15A1
		NC	CHJ18-5A2	CHJ18M-10A2	CHJ30-10A2	CHJ30M-15A2
Detection Distance			5mm±10%	10mm±10%	10mm±10%	15mm±10%
Response Frequency	DC		0.5KHz	0.35KHz	0.4KHz	0.2KHz
	AC		20Hz		20Hz	

Detected Object	Metal: iron, copper, steel, aluminum, nickel, etc. The standard detected object is A3 iron.
Differential Distance	Within 10% of the detection distance
Power Supply Voltage	DC (NPN, PNP, two-wire) type: DC10-30V; Analog output type: DC15-30VAC type: 100-240V 50/60Hz
Current Consumption	DC (NPN, PNP) type: ≤2.5mA; AC type: <10mA; DC two-wire type: ≤1mA
Control Output	Max 200mA
Circuit Protection	DC (NPN, PNP, two-wire) type: Short-circuit protection; AC type: Surge absorption protection
Operating Environment	Temperature: -25 ~+70 (without freezing); Humidity: 35~95%HR
Influence of Temperature	When the temperature is -25 and +70 , the detection distance is within ±10% of that at 25
Influence of Voltage	When the power supply voltage is within ±15% of the rated power supply voltage, the variation of the detection distance is within ±10%
Residual Voltage	DC (NPN, PNP) type: ≤1.5V; DC (two-wire) type: ≤3.5V; AC (two-wire) type: ≤10V
Insulation Resistance	≥50MΩ (with DC500V) between live parts and the housing
Withstand Voltage	DC (NPN, PNP, two-wire) type: AC1000V 50/60Hz, 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, complex amplitude 1.5mm, 2 hours for each of X, Y, Z directions
Impact	Endurance: 500m/s² (about 50g), 10 times for X, Y, Z directions
Protection Class	IP67
Material	Housing: Brass plated with nickel; Detection surface: Heat-resistant ABS

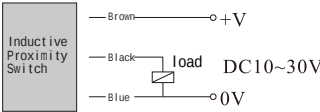
III.Classification by Output Form

1.DC three - wire NPN type (normally open or normally closed)



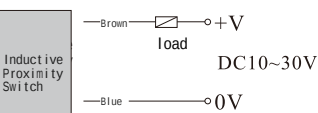
Max 200mA

2.DC three - wire PNP type (normally open or normally closed)



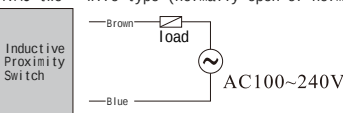
Max 200mA

3.DC two - wire type (normally open or normally closed)



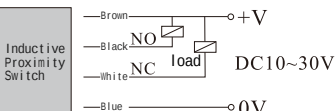
Max 200mA

4.AC two - wire type (normally open or normally closed)



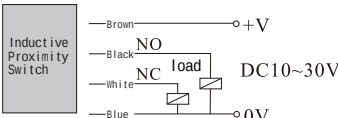
Max 200mA

5.DC Four-wire NPN Type (Normally Open + Normally Closed)



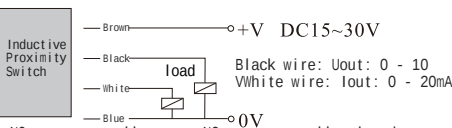
Max 200mA

6.DC Four-wire PNP Type (Normally Open + Normally Closed)

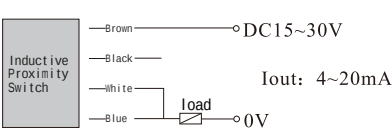


Max 200mA

7.Analog Type



Note: NO means normally open, NC means normally closed; NO + NC means normally open + normally closed;



Iout: 4~20mA