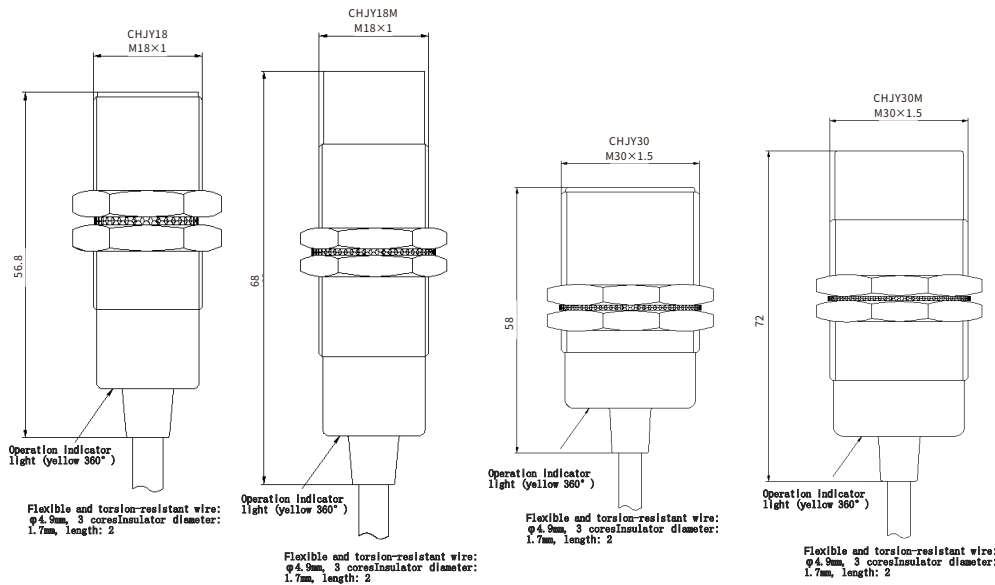
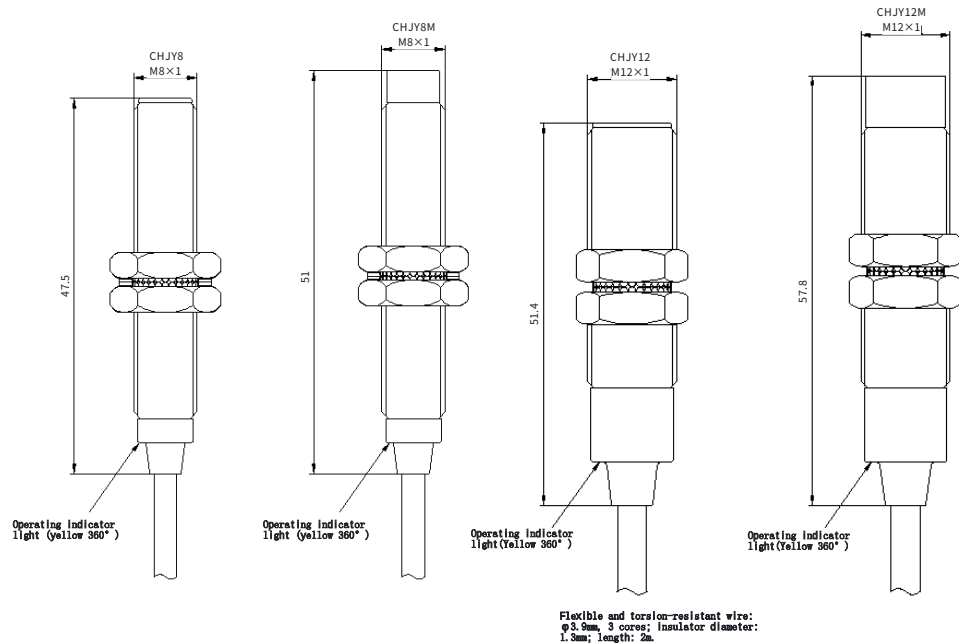


VII. Outline Dimension Drawing (Unit: mm)



VIII. Precautions

1. This product is not designed to protect personal safety. Please do not use this product for such purposes.
2. Pay attention to using the correct power supply; otherwise, it may cause damage or explosion.
3. Please do not short-circuit the load. Do not connect to the power supply directly without a load to avoid damaging the product.
4. If the proximity switch and the load power supply are independent of each other, the proximity switch must be powered on first, and then the load is powered on.
5. When the product is in use or storage, keep it away from flammable and explosive gases.
6. When installing the product in metal parts, be sure to install it at the specified distance; otherwise, the performance of the product will be reduced.

Table 2: Specified Distance When Installed in Metal Parts

(Unit: mm)

Item	Dimension	M8	M12	M18	M30
I		0	2.4	3.6	6
d		8	18	27	45
D		0	2.4	3.6	6
m		4.5	12	24	45
n		12	18	27	45

Item	Dimension	M8	M12	M18	M30
I		12	15	25	45
d		24	40	70	140
D		12	15	25	45
m		8	20	48	90
n		24	40	70	140

(Unit: mm)

7. When turning off the power, the proximity switch may output a pulse signal. Therefore, it is best to turn off the load power first and then turn off the power of the proximity switch.
8. When two or more proximity switches are installed facing each other or in parallel, their distance should be greater than the dimension shown in Table 3.

Technical diagrams illustrating the installation of proximity switches. The left diagram shows two switches in opposite and parallel configurations with dimension L1. The right diagram shows a single switch with dimensions L1 and L2.

Table 3 Distances for Opposite and Parallel Installation

Dimension	M8		M12		M18		M30	
Type	Flush Type	Non-flush Type	Flush Type	Non-flush Type	Flush Type	Non-flush Type	Flush Type	Non-flush Type
L1 (mm)	20	80	30	120	60	200	110	350
L2 (mm)	15	60	20	100	35	120	90	300

9. During installation and use, avoid other power lines and high-voltage lines being close to the lines of the proximity switch. The lines of the proximity switch should pass through separate metal pipes to prevent the performance of the proximity switch from being affected.
10. During installation and use, the length of the connected cable should not exceed 200m.
11. When fixing the nut of the proximity switch, the tightening force should be appropriate and not too large to avoid thread slipping. For M8 (7N·m); M12 (12N·m); M18 (30N·m); M30 (50N·m);
12. Please use the proximity switch in accordance with the specified storage environment and working environment.
13. The proximity switch in operation must be inspected regularly. Mainly check whether the proximity switch is misaligned, loose or deformed; check whether the wiring terminals are loose, poorly connected or open-circuited; check whether there is metal debris and dust accumulated on the surface of the proximity switch, especially the sensing surface; check whether the indicator light is normal.

IX. Environmental Protection and Other Legal Provisions

In order to protect the environment, when this product or its components are scrapped, they shall be properly disposed of as industrial waste; or handed over to a recycling and disposal station for classified disassembly, recycling and reuse, etc. in accordance with relevant national regulations.

X. Order Instructions (Conventional Wire Length: 2 Meters)

1. CHJY18 - 8N1, 2 meters, 100 pieces;
2. CHJY30 - 15N1, 2 meters, 100 pieces.

C-Lin
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C-Lin 欣灵

使用说明书
 Products Instructions



产品合格证

产品合格证

符合标准: GB/T 14048.10

检验员: 格07

出厂日期: 见产品或包装

本产品经检验合格, 准予出厂。

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

CHJY Series Enhanced Inductive Proximity Switches

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

I. Overview

Inductive proximity switches (hereinafter referred to as proximity switches) consist of three parts: an oscillator, a switch circuit, and an amplified output circuit. After the oscillator starts oscillating, an alternating magnetic field is generated on the sensing head of the proximity switch. When a metal target approaches this magnetic field and reaches the sensing distance, eddy currents are generated in the metal target, absorbing the energy of the oscillator and causing the oscillation to attenuate until it stops. The changes between oscillation and stop-oscillation are processed by the subsequent amplification circuit and converted into switch signals to trigger external drive control devices, thus achieving the purpose of non-contact detection. This product is widely used in automation equipment, such as machine tools, packaging machines, indexing table positioning, tension control, and cam and cylinder position detection.

II. Normal Operating Conditions and Installation Conditions

1. Ambient temperature: The proximity switch shall be able to operate at a temperature range of $-25\sim+70^{\circ}\text{C}$, and its operating characteristics shall remain unchanged.
2. Altitude: The altitude of the installation site shall not exceed 2000m.
3. Atmospheric conditions: When the maximum temperature is $+40^{\circ}\text{C}$, the relative humidity of the air shall not exceed 50%. Higher relative humidity is allowed at lower temperatures, for example, up to 90% at 20°C . Special measures shall be taken for condensation occasionally caused by temperature changes.
4. Pollution degree: Class 3.

III. Model and Its Meaning

CHJ Y 18 M - 14 N 1

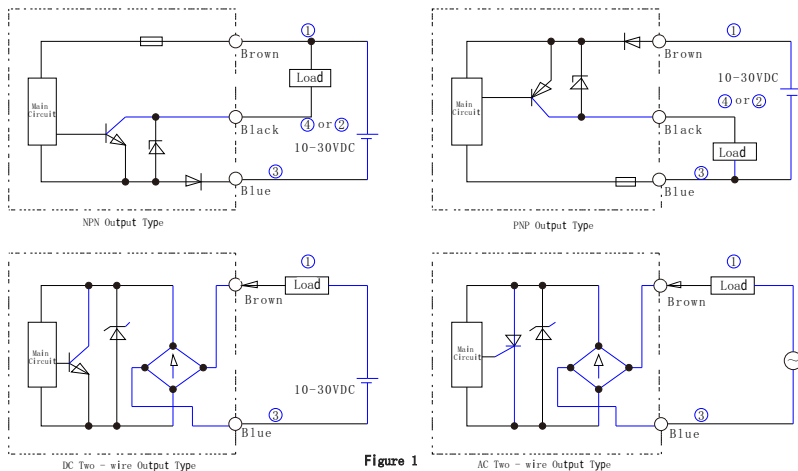
- 1: Normally Open (NO); 2: Normally Closed (NC)
N: NPN type; P: PNP type
Detection distance: 2mm, 4mm, 8mm, 14mm, 16mm, 25mm
M: Non-flush type; □: Flush type
Diameter size: 8mm, 12mm, 18mm, 30mm
Long-distance enhanced type
Design code for inductive proximity switch

①

IV. Product Features

1. Products in this series have strong protection class capability (IP65).
2. Patented design with a compact and aesthetic structure.
3. When the product is installed at any angle, the indicator light is visible at 360° .
4. Distance - enhanced products can save costs and space.
5. Complete specifications are available, covering M8-M30, and can be selected at will.
6. The product complies with the national standard GB/T14048.10 - 2016.

V. Output Circuit and Wiring



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VI. Technical Parameters and Performance

Table 1

Item	Performance and Parameters							
Size	M8		M12		M18		M30	
Flush Mounting / Non - flush Mounting	Flush Mounting	Non - flush Mounting	Flush Mounting	Non - flush Mounting	Flush Mounting	Non - flush Mounting	Flush Mounting	Non - flush Mounting
Model	CHJY8-2	CHJY8M-4	CHJY12-4	CHJY12M-8	CHJY18-8	CHJY18M-14	CHJY30-15	CHJY30M-25
Sensing Distance	$2\pm 10\%$	$4\pm 10\%$	$4\pm 10\%$	$8\pm 10\%$	$8\pm 10\%$	$14\pm 10\%$	$15\pm 10\%$	$25\pm 10\%$
Standard Detection Object (mm)	Iron 8*8*1	Iron 12*12*1	Iron 12*12*1	Iron 24*24*1	Iron 24*24*1	Iron 42*42*1	Iron 45*45*1	Iron 75*75*1
Response Frequency	1kHz	800Hz	800Hz	500Hz	400Hz	200Hz	300Hz	150Hz
Operating Voltage	Rated Voltage DC12~24V (Operating Voltage Range DC10~30V)							
Rated Operating Current	$<180\text{mA}$							
Leakage Current	$\leq 0.1\text{mA}$							
Voltage Drop	$\leq 2.5\text{V}$							
Current Consumption	$<10\text{mA}$							
Hysteresis	$<10\%$							
Repeatability	$<3\%$							
Output Indication	360° Viewing Angle (Yellow)							
Polarity Protection	Yes							
Short - circuit Protection	Yes							
Ambient Temperature	During operation: $-25\sim+70^{\circ}\text{C}$ (without icing); During storage: $-40\sim+85^{\circ}\text{C}$ (without icing and condensation)							
Ambient Humidity	$35\sim 95\%\text{RH}$							
Temperature Influence (Temperature Drift)	Within the temperature range of $-25\sim+70^{\circ}\text{C}$, the sensing distance is within $\pm 15\%$ of the sensing distance at $+23^{\circ}\text{C}$							
Impact	Endurance: 500m/s^2 (about 50g), 10 times in each of X, Y, Z directions							
Protection Class	IP65							
Withstand Voltage	1000V power frequency withstand voltage							
Insulation Resistance	Above $50\text{M}\Omega$ (with DC500V)							
Vibration	Endurance: $10\sim 55\text{Hz}$ with a double amplitude of 1.5mm, 2 hours in each of X, Y, Z directions							
Rated Limited Short - circuit Current	100A; Model and specification of protective device: RL6~25/0.3A							
Rated Insulation Voltage	60V							
Connection Method	Wire - lead type, standard length is 2m							
Material	Housing	Brass with nickel plating						
	Sensing Surface and Indicator Window	ABS						

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