

Multi-point non-contact liquid level controller instruction manual

XKC-CY10 AC 110V-220V

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1st. Overview

XKC-CY10 intelligent non-contact liquid level controller and 10 non-contact liquid level detection heads are realized, A, the same container liquid level control function: when the container liquid level is too low, it triggers the low liquid level alarm signal sent by the low liquid level sensor Trigger the CY10 controller to close the relay to start the water pump to add liquid level. When the liquid level reaches a certain height, the high liquid level sensor sends a signal to trigger the CY10 controller to open the relay and automatically stop the water pump to work in a cycle. So as to realize the function of automatic control of the liquid level of the container, B multiple containers (up to 10) liquid level control function: install each sensor on a different container, and the liquid level control function of different containers can be realized.

2nd.Product Features

1. AC110V-220V wide voltage power supply.
2. Relay dry node output, suitable for multiple load control.
3. Ten channel input, more subdivision level of the same container, more accurate control.
4. It can control the liquid level of 10 containers at the same time, and the control function is more powerful.
5. The installation is simple and convenient. It can be installed with screws or electric box tracks.
6. RS485 output, easier to connect.
7. The plug-in terminal block makes the connection more convenient.

3rd.Technical Parameters

Model number	XKC-CY10	name	CY10 multi-point non-contact liquid level controller
Input voltage	AC110V-220V		
Inductor working voltage	DC5V		
Standby power consumption	≤1W		
Load power	30A		
Output method	Relay dry node output		
Input sensor	XKC-Y26-NPN (other sensors can also be equipped)		
Communication Agreement	RS485		
Input channel	10 way		
Induction head interface voltage	DC 5V		
Working temperature	-20~85°C		

Dimensions	118*118*51
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4th. Product selection model

XKC-CY10-1P, (with 1 sensor);

XKC- CY10-2P, (with 2 sensors);

XKC- CY10-3P, (with 3 sensors);

XKC-CY10-4P, (with 4 sensors).

XKC-CY10-5P, (with 5 sensors).

XKC-CY10-6P, (with 6 sensors).

XKC-CY10-7P, (with 7 sensors).

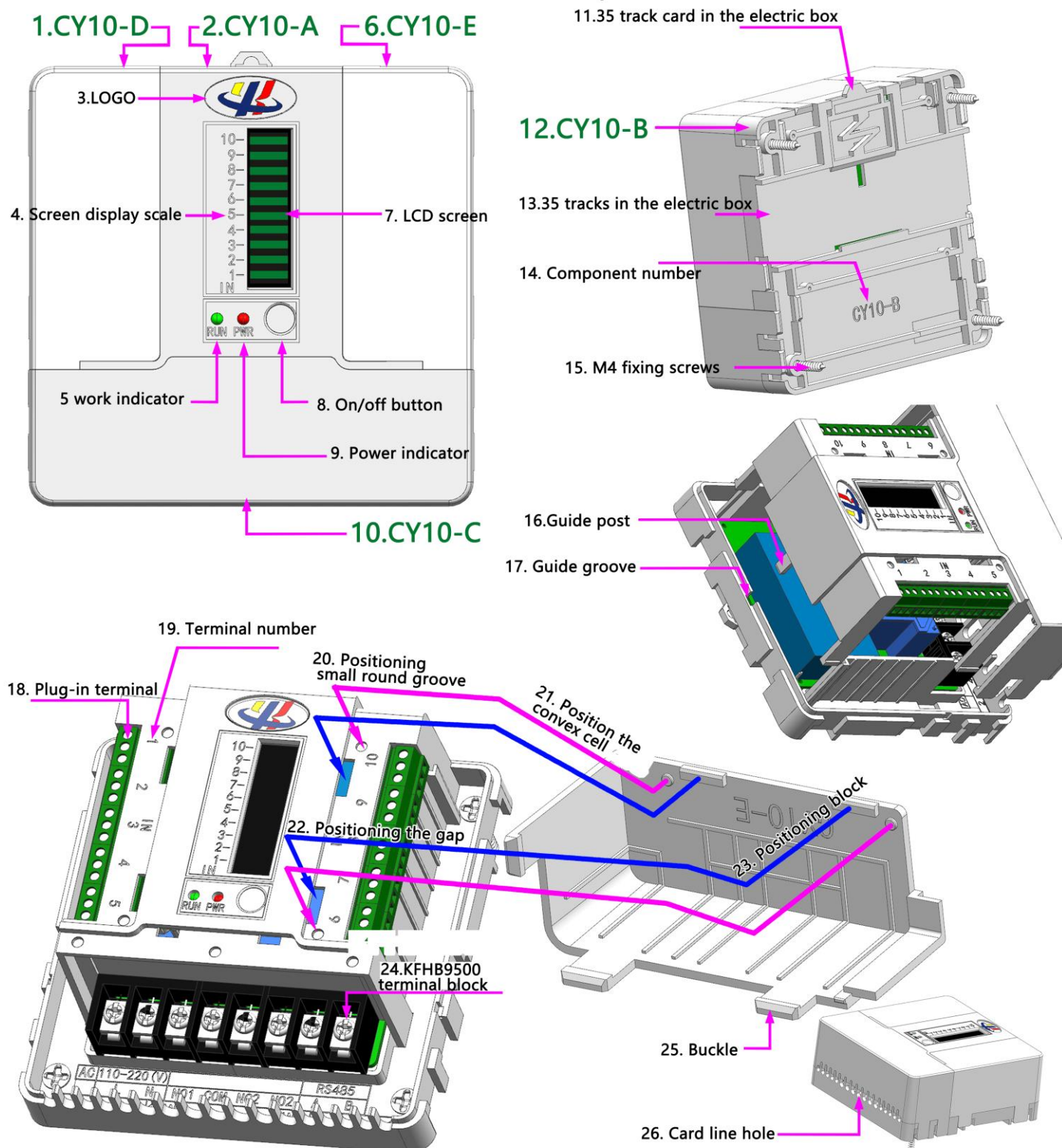
XKC- CY10-8P, (with 8 sensors).

XKC-CY10-9P, (with 9 sensors).

XKC-CY10-10P, (with 10 sensors).

5th. Related name map

Related name map



Related name map

6th. Button function description

Power on and off: As shown in the figure above, when the power indicator is on, press the button to turn it off. When the power indicator is off, press the button to turn it on.

7th. Indicator status function description

The power indicator is red:

Steady red light power is on

The red light is always off the power is off.

The working indicator is green:

The green light is flashing

The suction pump starts and the drainage pump stops.

The green light is always on

The water pump stops and the drain pump starts.

8th. Instructions for removing parts

A. Separate the entire CY10 controller to ensure that it is not fixed in a certain environment, as shown in Figure 1.

B. Before disassembling the shell components, you must skillfully hold and release the buckle.

1. Use a little force to move the component buckle away from the platform where it is buckled, and make sure that the component buckle is not buckled, as shown in Figure 3-1.

2. Push the component buckle in the vertical direction of the platform position until the component can be removed, as shown in Figure 3-2.

3. Remove the part buckles on the same side as much as possible at the same time. It is true that you cannot remove them at the same time. You can also remove a single part buckle, as shown in Figure 3-2.

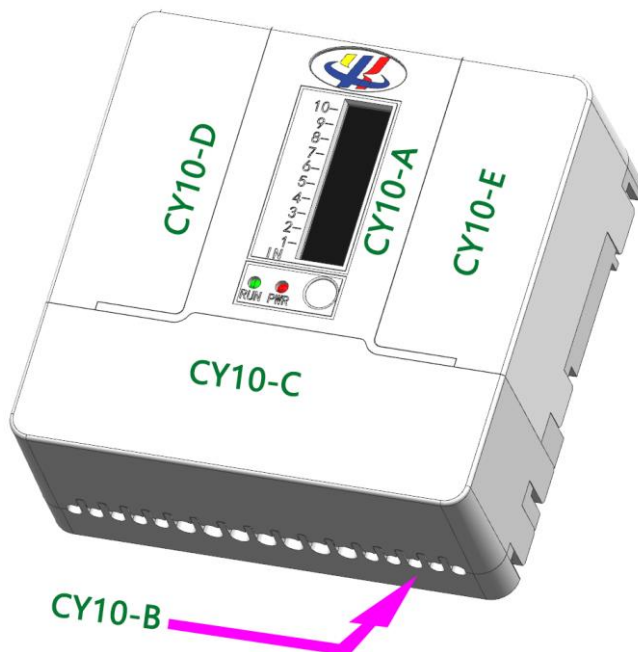


Figure1

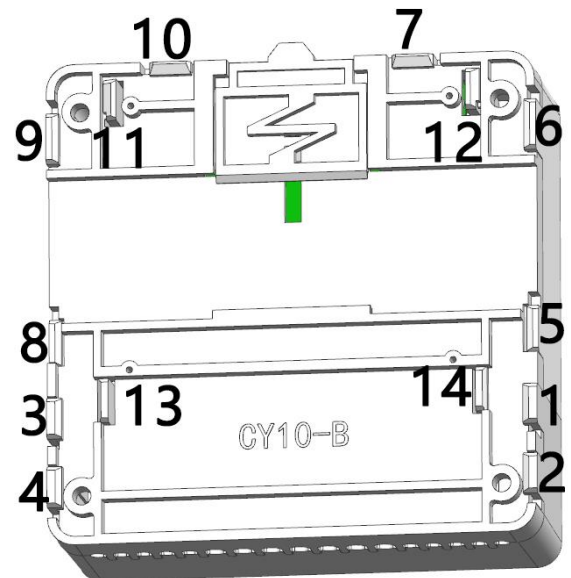


Figure2

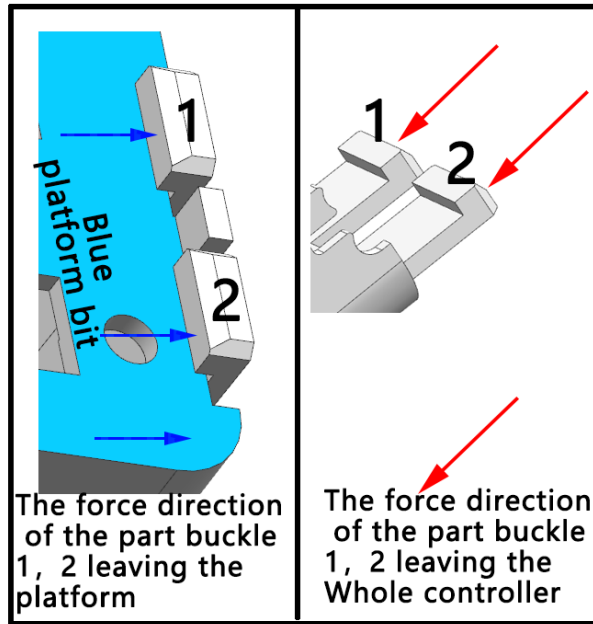


Figure3-1

Figure3-2

Component buckle 1, 2 trip example, other buckle trip methods are the same.

C. Find the corresponding buckle, remove the assembly, first remove CY10-C, then CY10-D and CY10-E,

Finally, disassemble CY10-A as shown in Figure 2.

CY10-C corresponds to 1, 2, 3, 4.

CY10-D corresponds to 5, 6, and 7.

CY10-E corresponds to 8, 9, 10.

CY10-A corresponds to 11, 12, 13, 14.

Description: Which block should be removed according to the need.

9th. Installation parts description

1. Installation of CY10-A

(1) All circuit boards and on/off buttons must be installed before installation.

(2) As shown in the "Related Name Diagram", first find the "Guide Pillar" and align the "Guide Pillar" with the "Guide Slot" and insert it until it can no longer be inserted.

(3) Press the deduction positions 11, 12, 13, 14 into the corresponding positions of CY10-B one by one. As shown in Figure 2

2. Installation of CY10-D

(1) Align buckles 5, 6, and 7 to the corresponding positions of CY10-B at the same time, especially when the side line of buckle 7 is as close as possible to the side line of CY10-A, and the gap does not exceed 0.5mm. Then slowly push down until the 3 buckles have buckled CY10-B, corresponding to the positions. As shown in Figure 2, Figure4

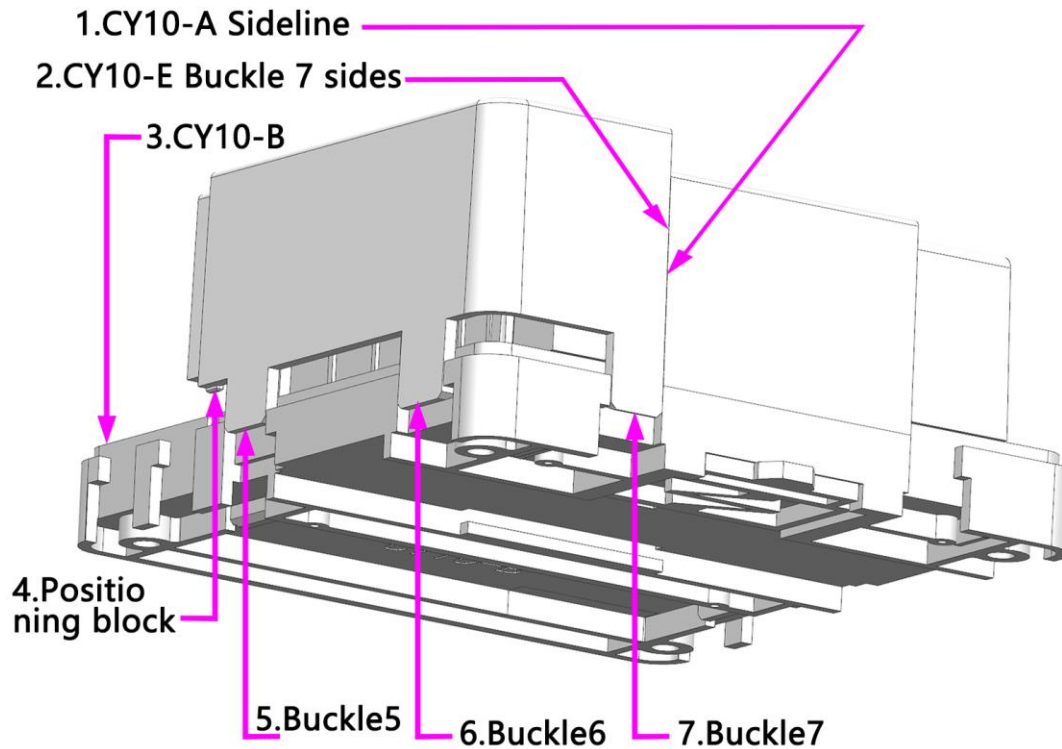


Figure 4

(2) Use your thumb to squeeze the side line of CY10-D and the side line of CY10-A with force on the top surface of CY10-D. The purpose is to make the CY10-D "positioning small convex cell" enter the "positioning small circular groove" of CY10-A, and make the CY10-D "positioning block" enter the "positioning gap" of CY10-A. Until the two sides are seamless or can no longer be squeezed. Figure 1 and related names

3. Installation of CY10-E

(1) Align buckles 8, 9, and 10 to the corresponding positions of CY10-B at the same time, especially when the side line of buckle 10 is as close as possible to the side line of CY10-A, and the gap does not exceed 0.5mm. Then slowly push down until the 3 buckles have buckled CY10-B, corresponding to the positions. As shown in Figure 2

(2) Use your thumb to squeeze the CY10-E sideline and CY10-A sideline direction firmly on the top surface of CY10-E. The purpose is to make the "positioning small convex cell" of CY10-E enter into the "positioning small circular groove" of CY10-A, and make the "positioning block" of CY10-E enter the "positioning gap" of CY10-A. Until the two sides are seamless or can no longer be squeezed. Figure 1 and related names

4. Installation of CY10-C

(1) Align buckles 1, 2, 3, and 4 to the corresponding positions of CY10-B at the same time, especially when the sides of buckles 1 and 3 are as close as possible to the side of CY10-A, and the gap does not exceed 0.5mm. Then slowly push it down until the 4 buckles have buckled the CY10-B, corresponding to the positions. As shown in Figure 2

(2) Use your thumb to forcefully squeeze the CY10-C sideline and CY10-A sideline on the top surface

of CY10-C. The purpose is to make the "positioning small convex cells" of CY10-C enter the "positioning small circular groove" of CY10-A, and make the "positioning block" of CY10-C enter the "positioning gap" of CY10-A. Until the two sides are seamless or can no longer be squeezed. Figure 1 and related names

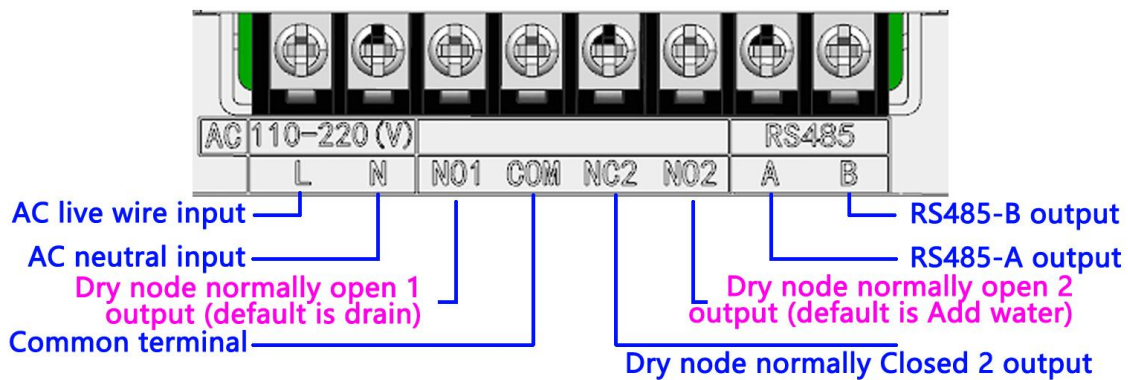
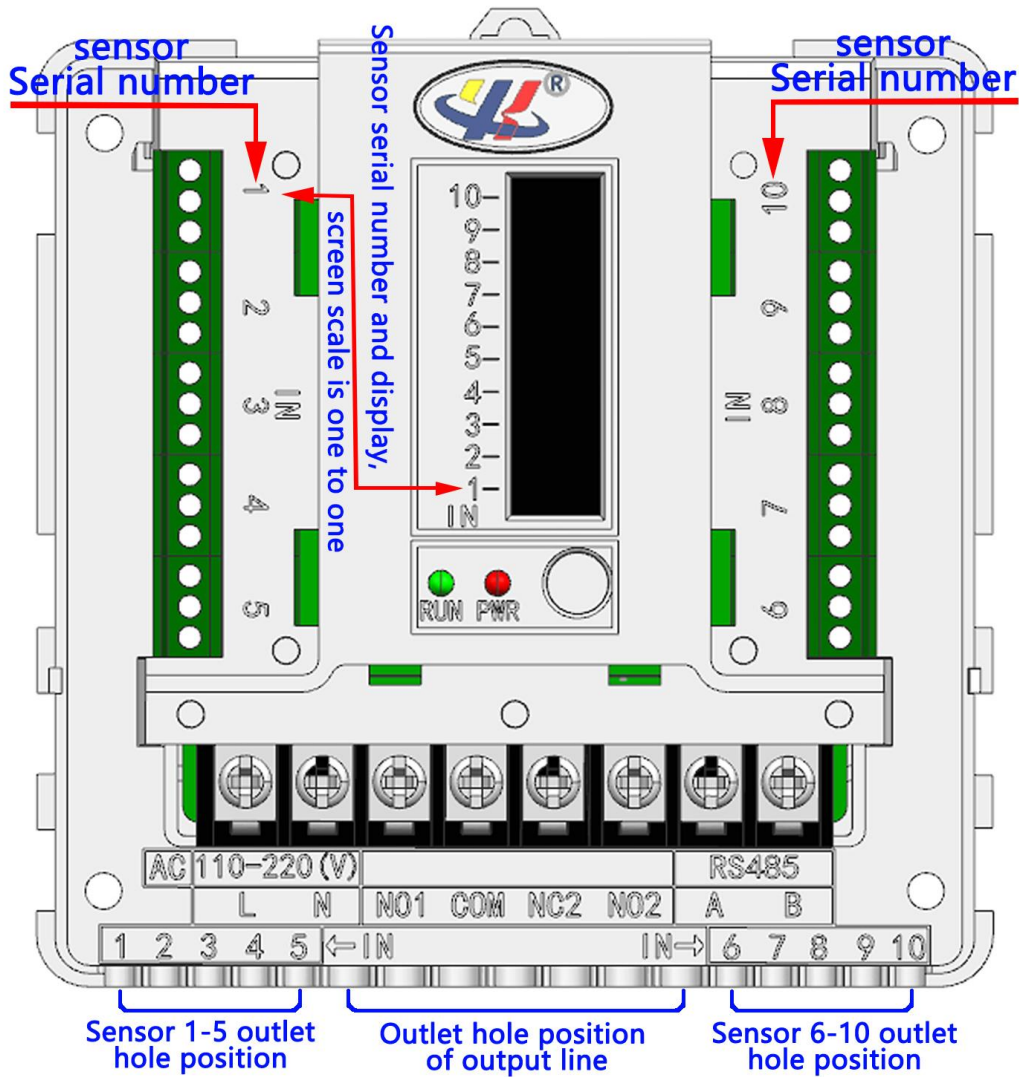
Description: Which block should be installed according to the need.

10th. Recommended installation method description

Controller installation method; XKC-CY10 controller can be directly installed on the wall. There are 4 installation holes on the CY10-B component, which are fixed on the wall with M4 screws. Or CY10 35 track and track card can be directly used in electrical boxes and electrical cabinets. Such as the related name map.

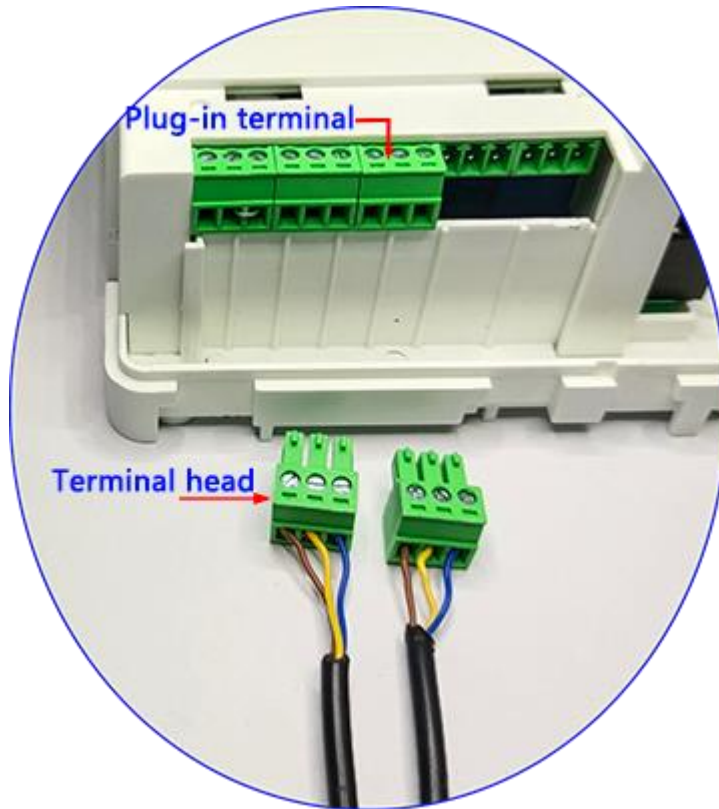
Sensor probe installation: different types of sensor probes have different installation methods, please refer to the relevant chapters of the specifications corresponding to the sensor model you are using. I won't repeat them here.

11th. Description of other terminals



12th. Plug-in terminal

The sensor wiring terminal adopts the pluggable wiring terminal, you can pull out the terminal head separately, connect the wire and install it back, or you can directly wire it on the controller.

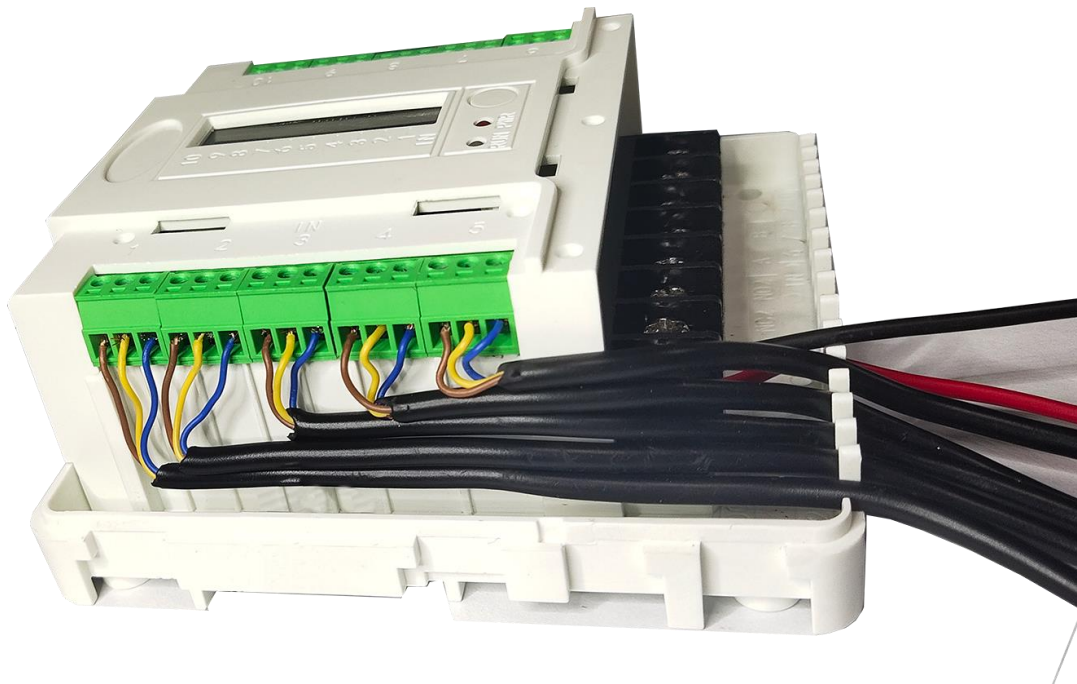


13th. Sensor terminal description

1. NPN sensor connection method

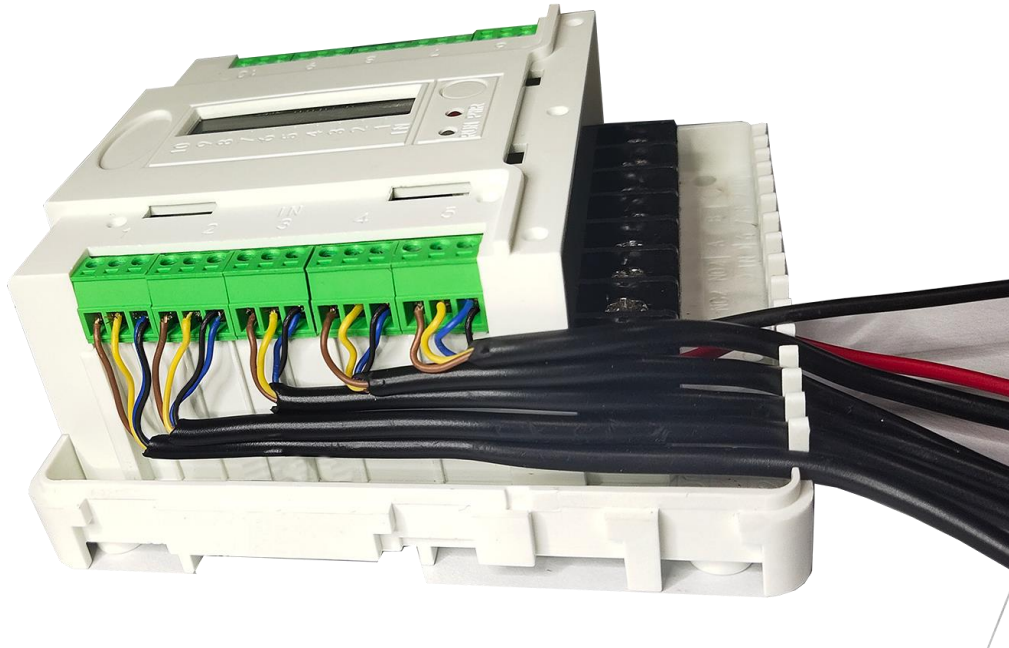
Input terminal (3-core sensor) NPN connection: brown sensor power supply DC+5V, yellow line is the input signal line, low level with induction, high level without induction. The blue wire is the ground wire.

The following figure shows the wiring of sensors 1-5, and the connection of sensors 6-10 on the other side is the same.



2. Connection of high and low level sensors

Input terminal (4-core sensor) connection method: brown sensor power supply DC+5V, yellow line is the input signal line, low level with induction, high level without induction. The blue wire and the black wire are connected to the ground wire. The following figure shows the wiring of sensors 1-5, and the connection of sensors 6-10 on the other side is the same.



14th. Wiring instructions

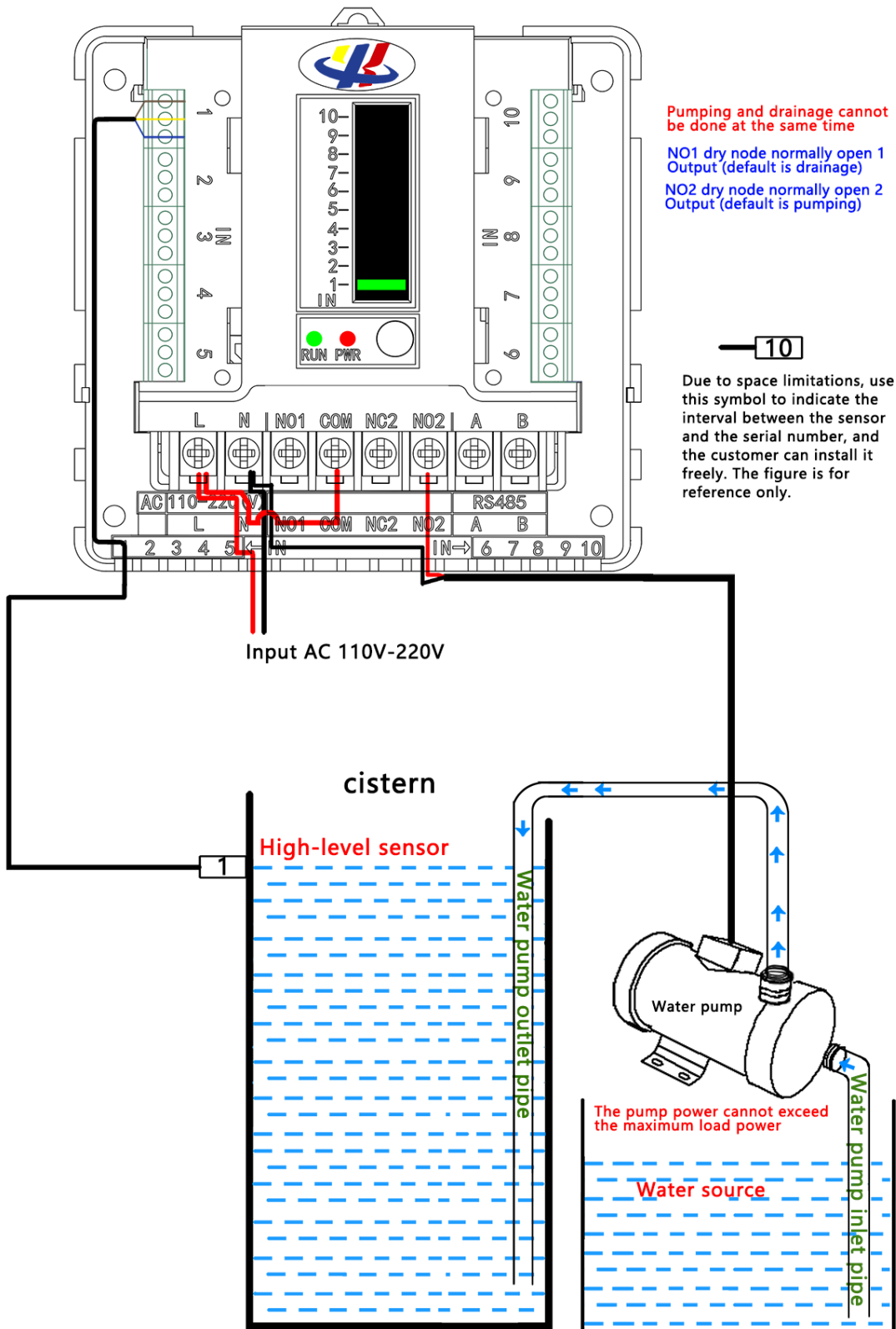
The power indicator is red: the red light is always on the power is on, the red light is always off the power is off.

The working indicator light is green: the green light flashes the water pump is started, the green light is always on the water pump stops,

The figure shows that the serial number of the scale and the serial number of the sensor correspond one by one

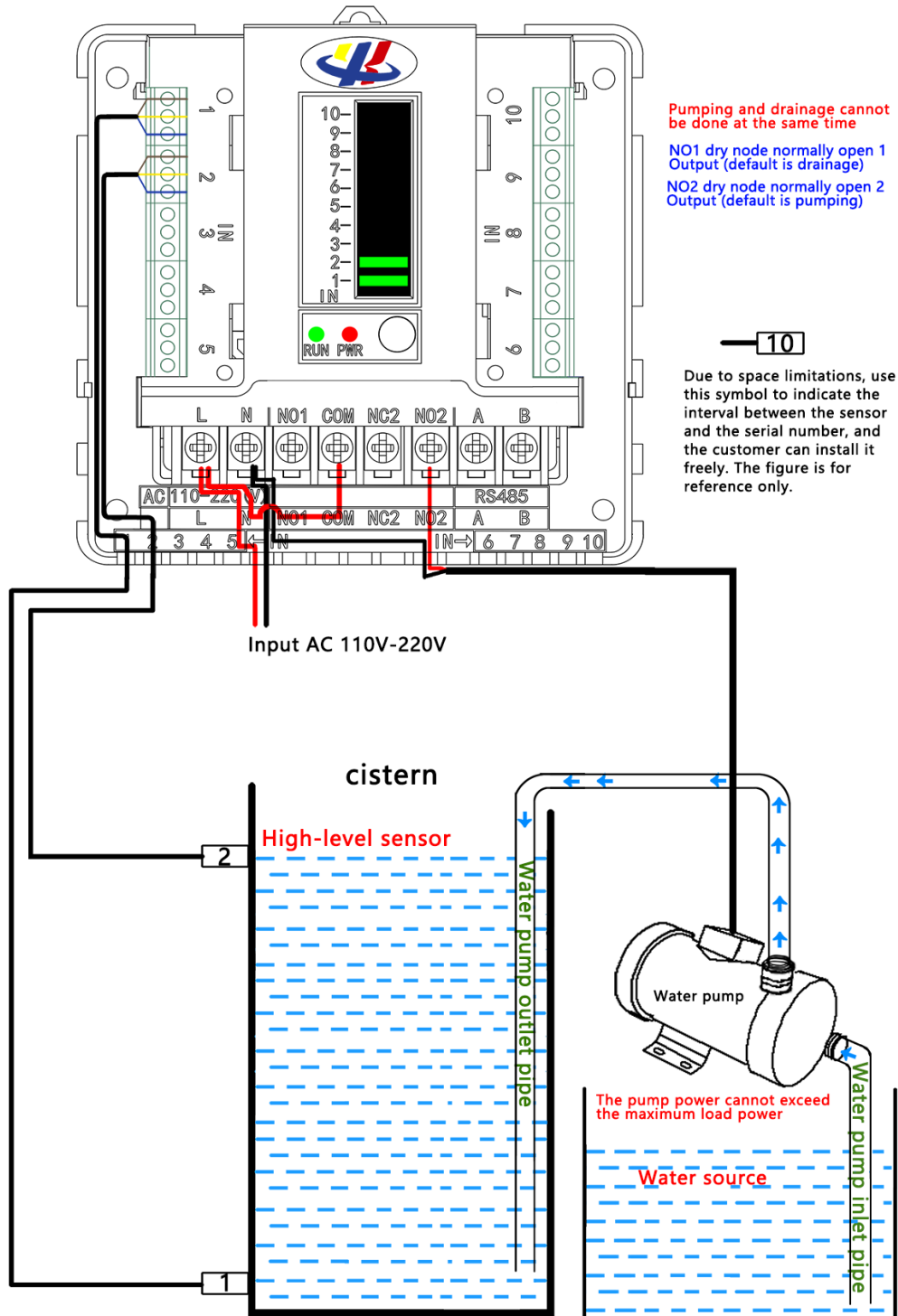
(1) XKC-CY10-1P wiring diagram

The figure below uses the intelligent non-contact liquid level controller CY10 + 1 non-contact liquid level sensor to realize automatic water level control.



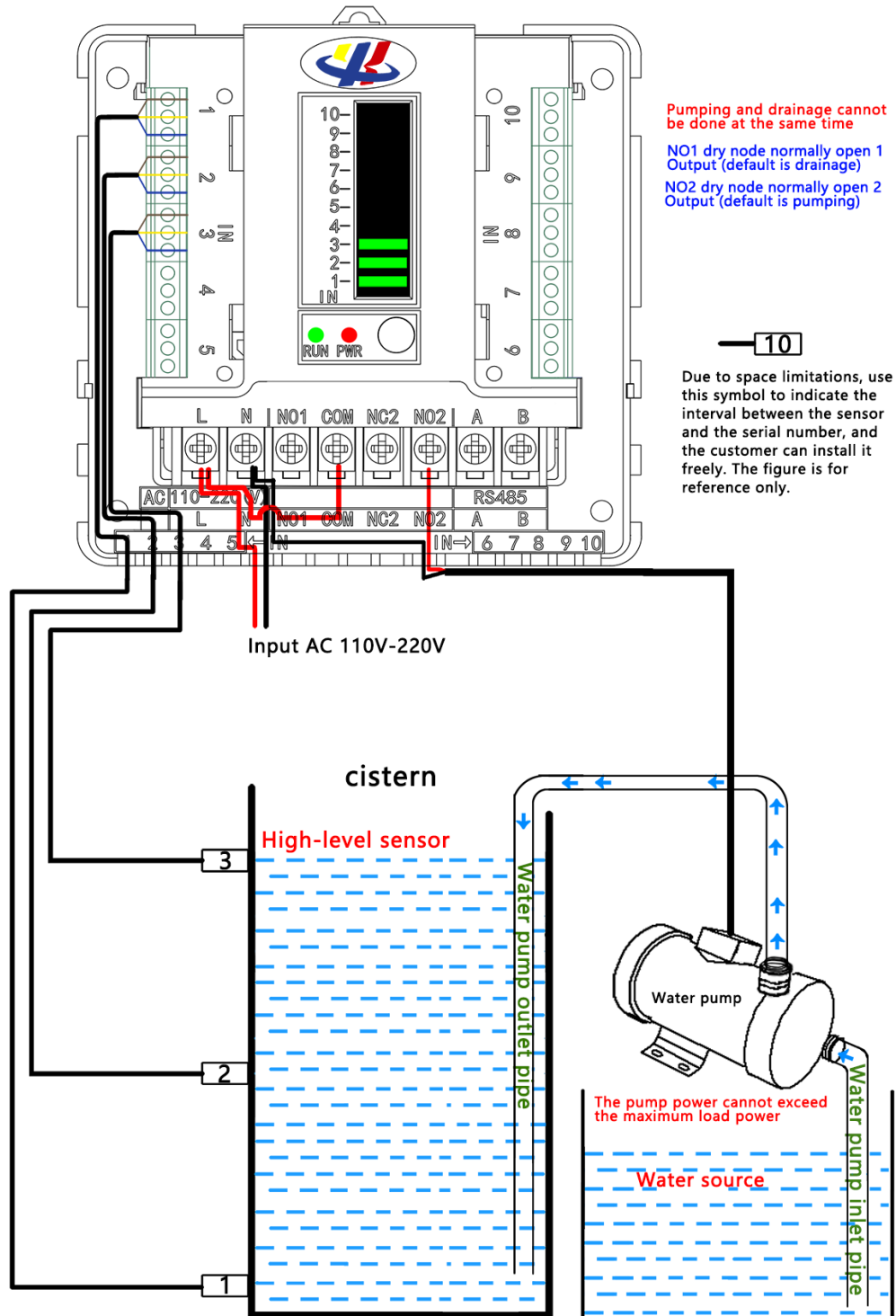
(2) XKC-CY10-2P wiring diagram

The figure below uses the intelligent non-contact liquid level controller CY10 + 2 non-contact liquid level sensors to achieve automatic water level control.



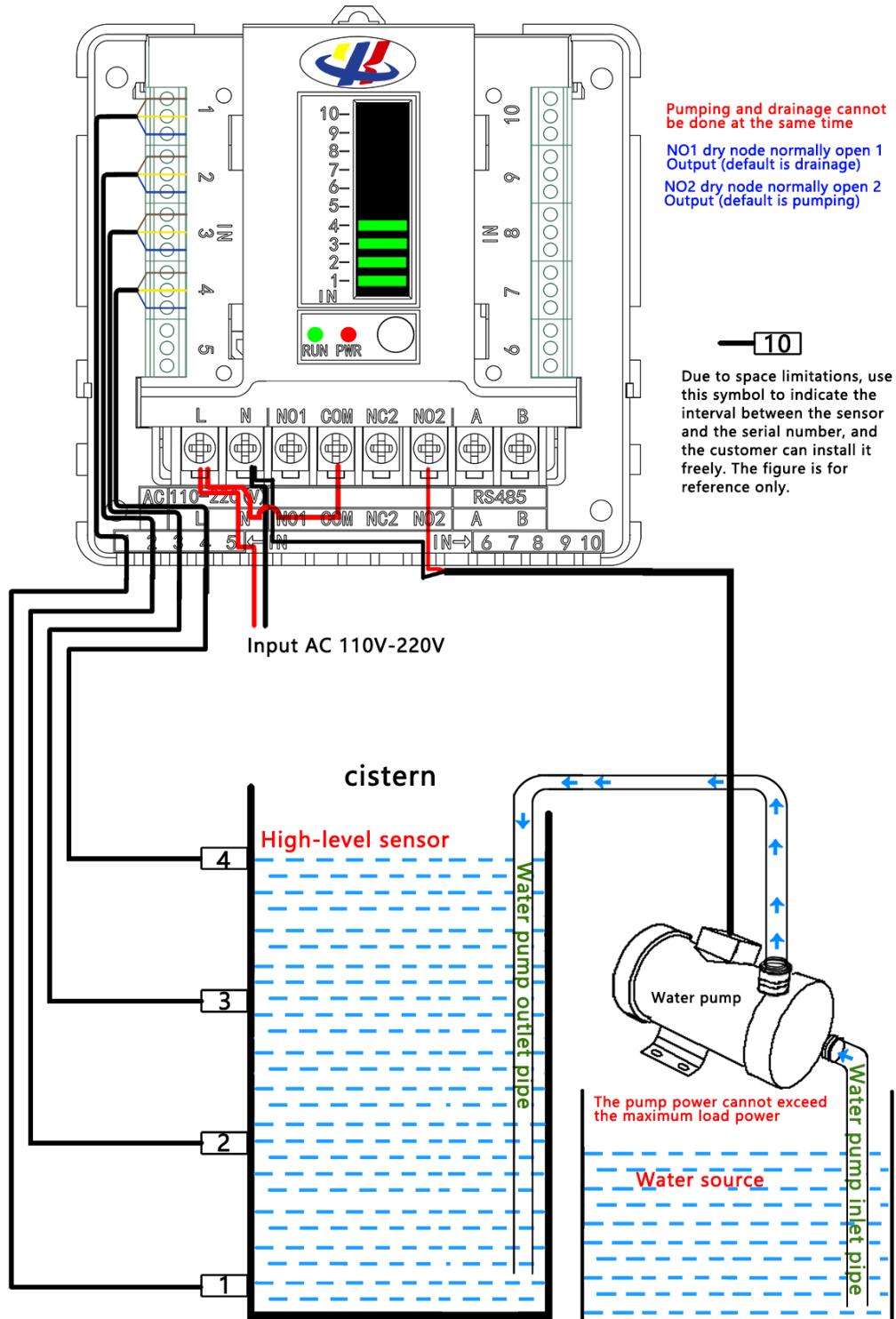
(3) XKC-CY10-3P wiring diagram

The figure below uses the intelligent non-contact liquid level controller CY10 + 3 non-contact liquid level sensors to achieve automatic water level control.



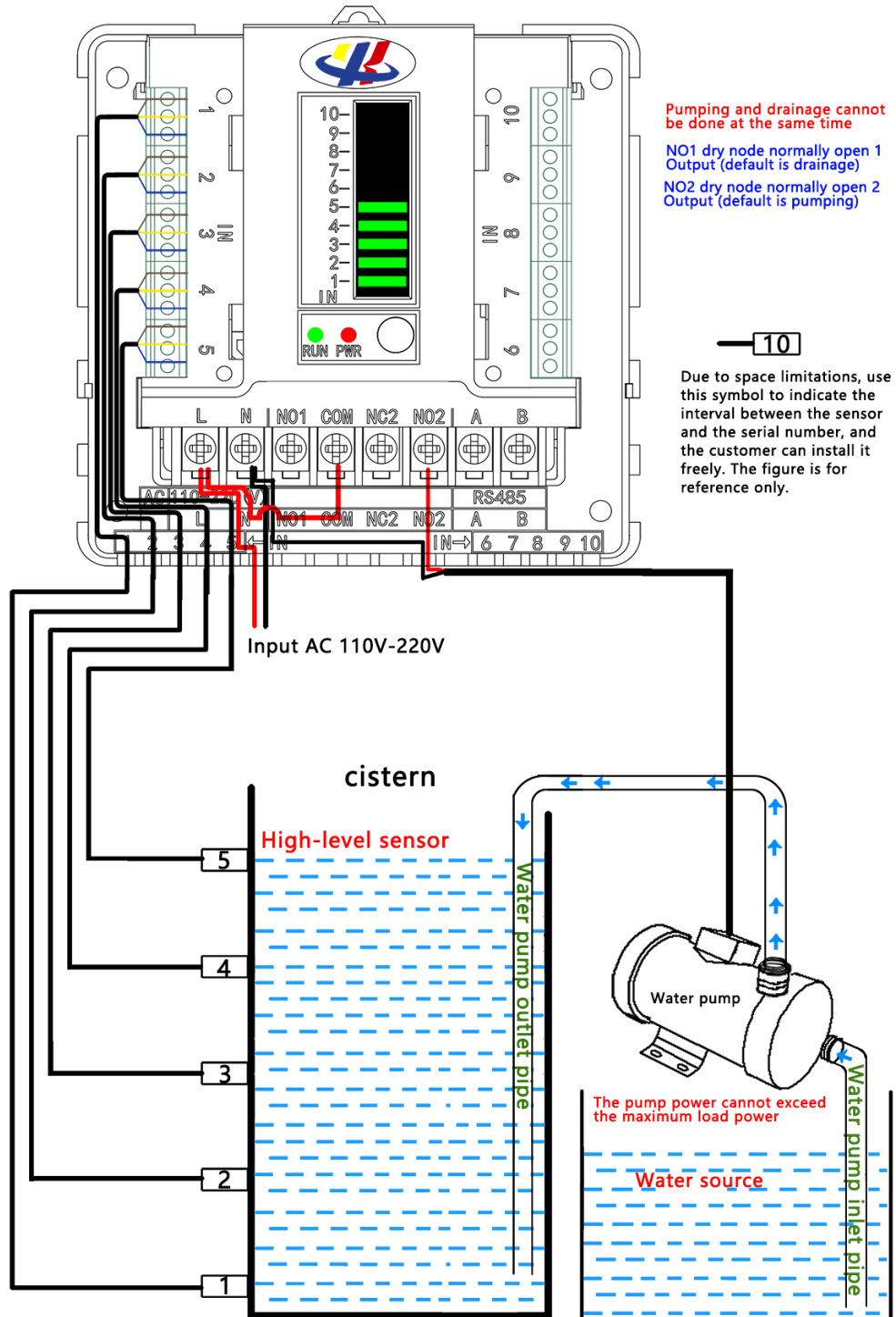
(4) XKC-CY10-4P wiring diagram

The figure below uses the intelligent non-contact liquid level controller CY10 + 4 non-contact liquid level sensors to achieve automatic water level control.



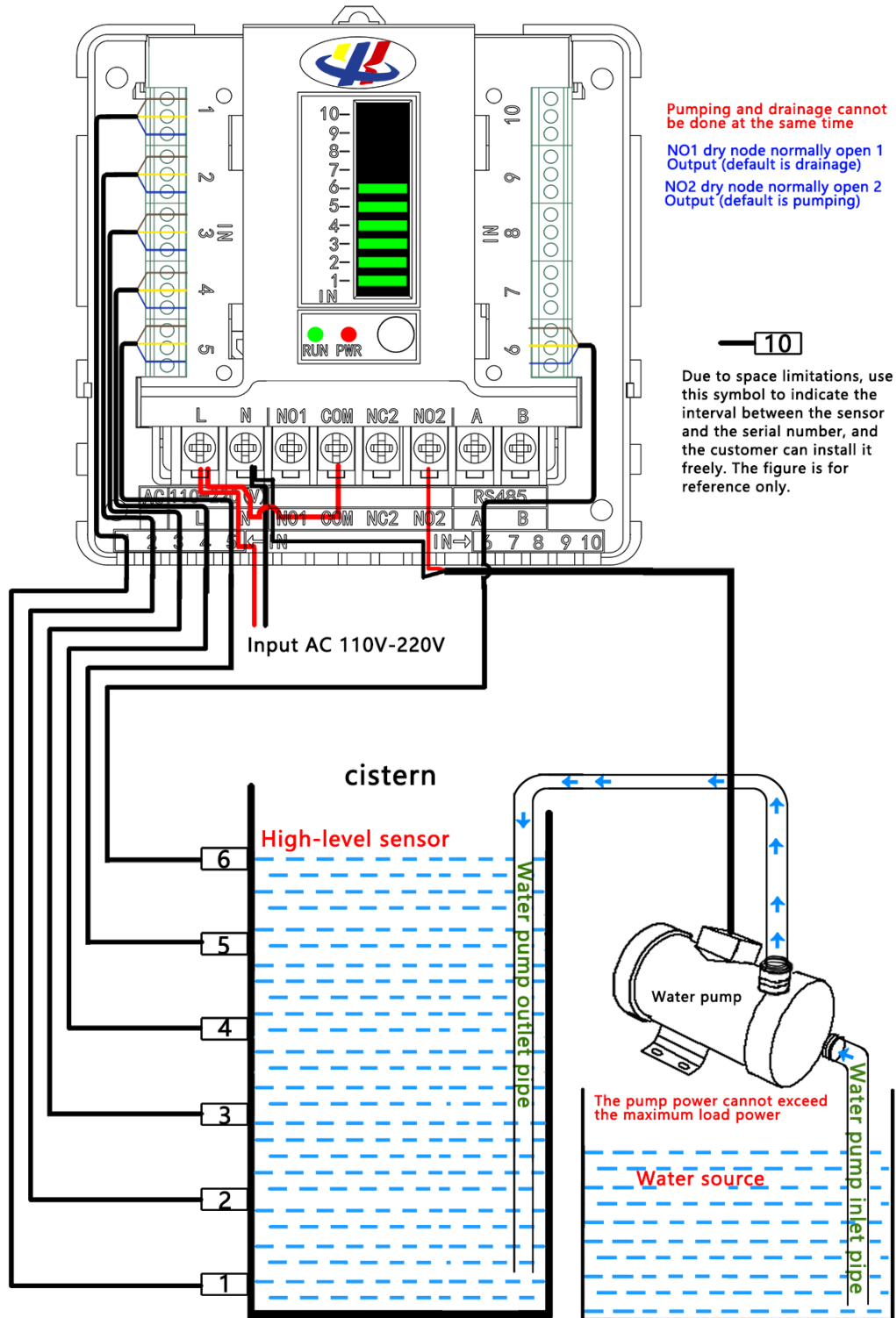
(5) XKC-CY10-5P wiring diagram

The figure below uses the intelligent non-contact liquid level controller CY10 + 5 non-contact liquid level sensors to achieve automatic water level control.



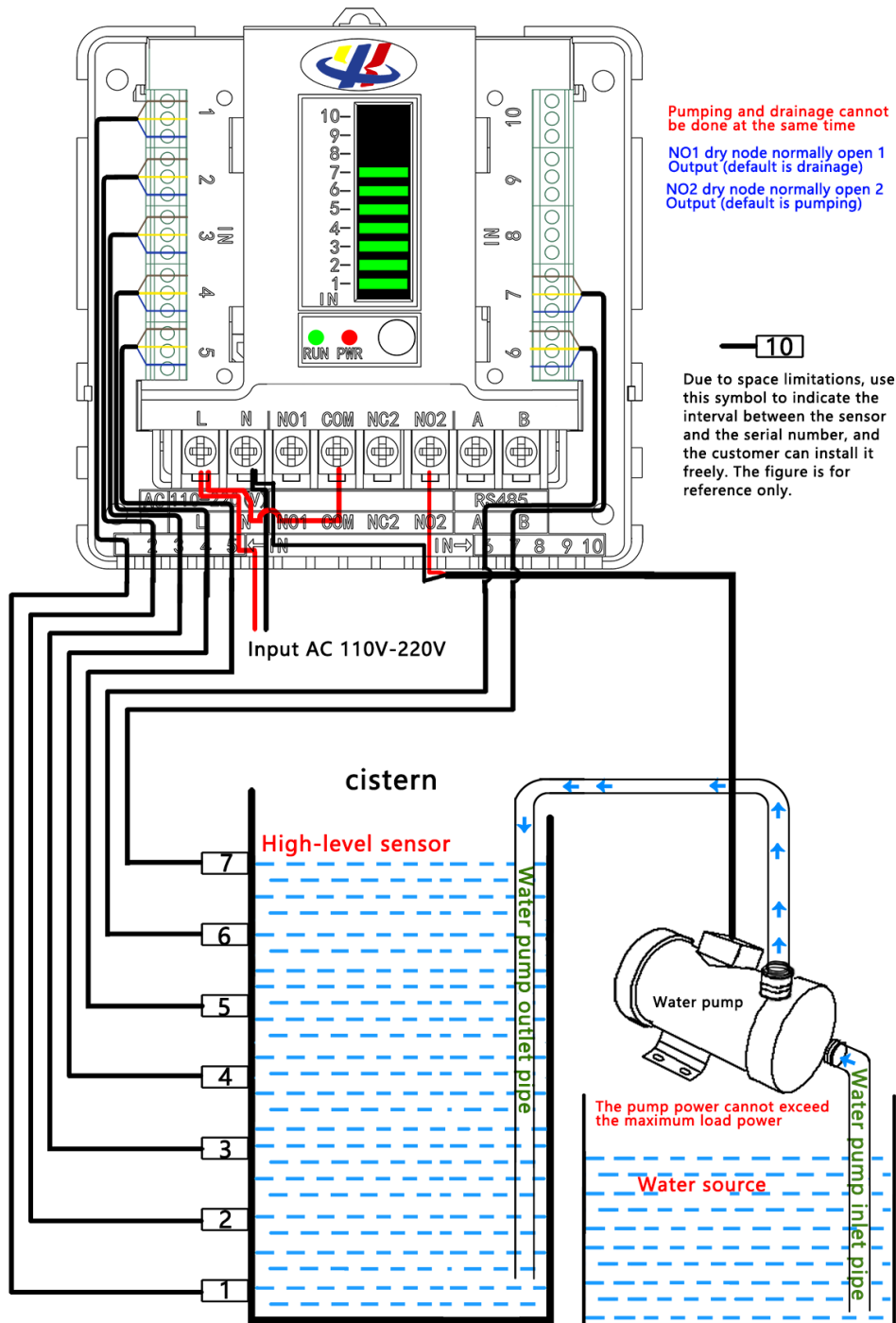
(6) XKC-CY10-6P wiring diagram

The figure below uses the intelligent non-contact liquid level controller CY10 + 6 non-contact liquid level sensors to achieve automatic water level control.



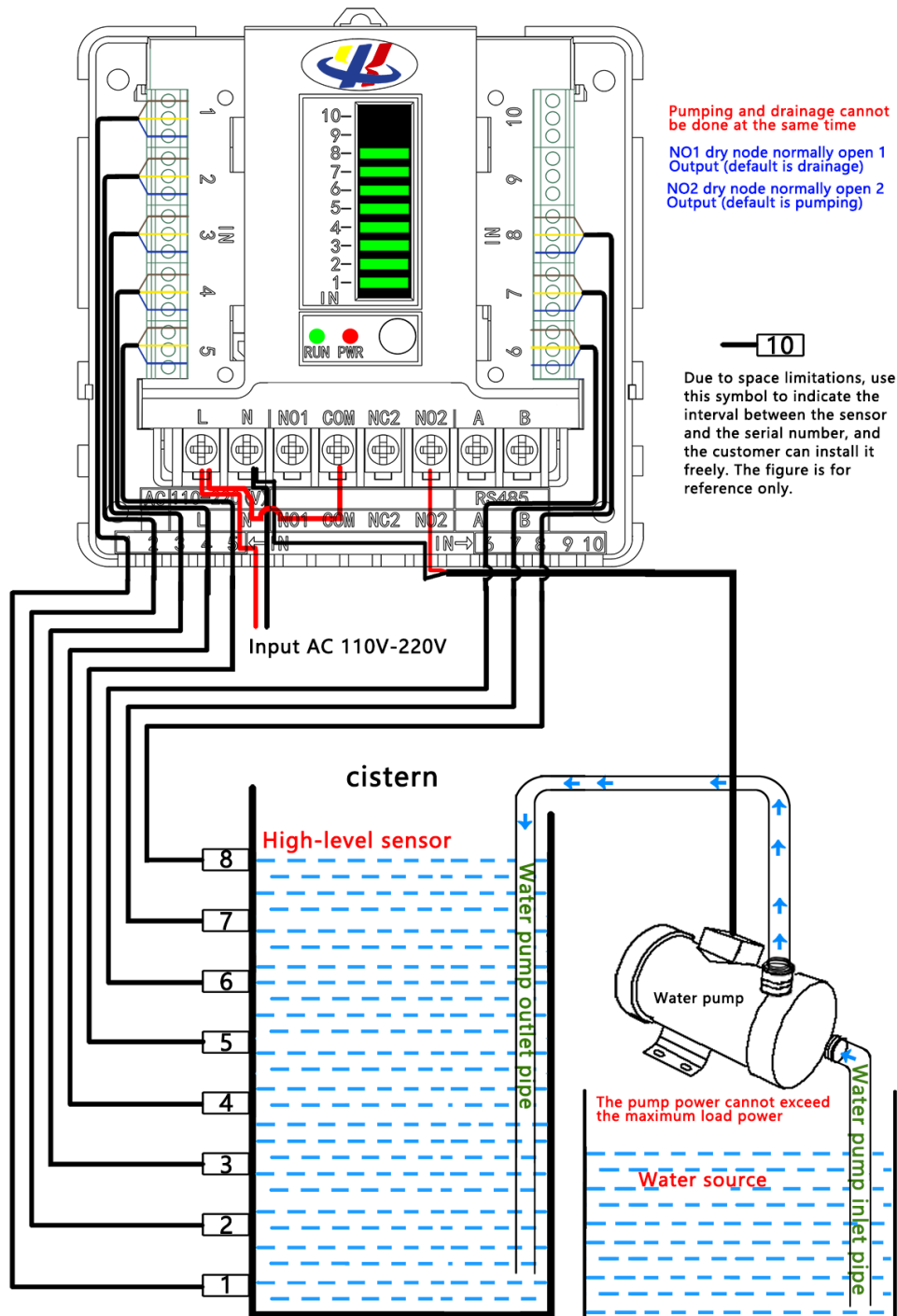
(7) XKC-CY10-7P wiring diagram

The figure below uses the intelligent non-contact liquid level controller CY10 + 7 non-contact liquid level sensors to achieve automatic water level control.



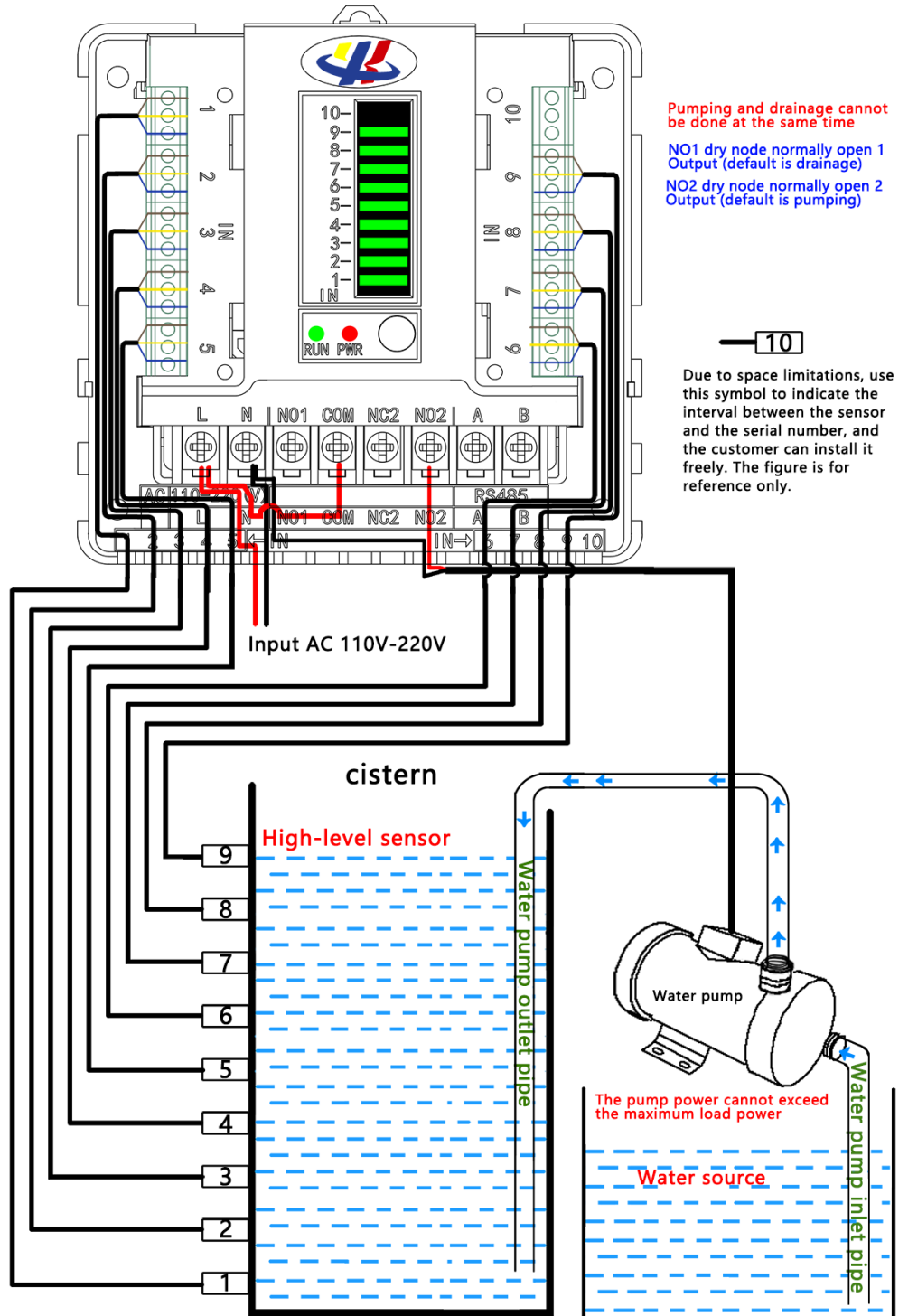
(8) XKC-CY10-8P wiring diagram

The figure below uses the intelligent non-contact liquid level controller CY10 + 8 non-contact liquid level sensors to achieve automatic water level control.



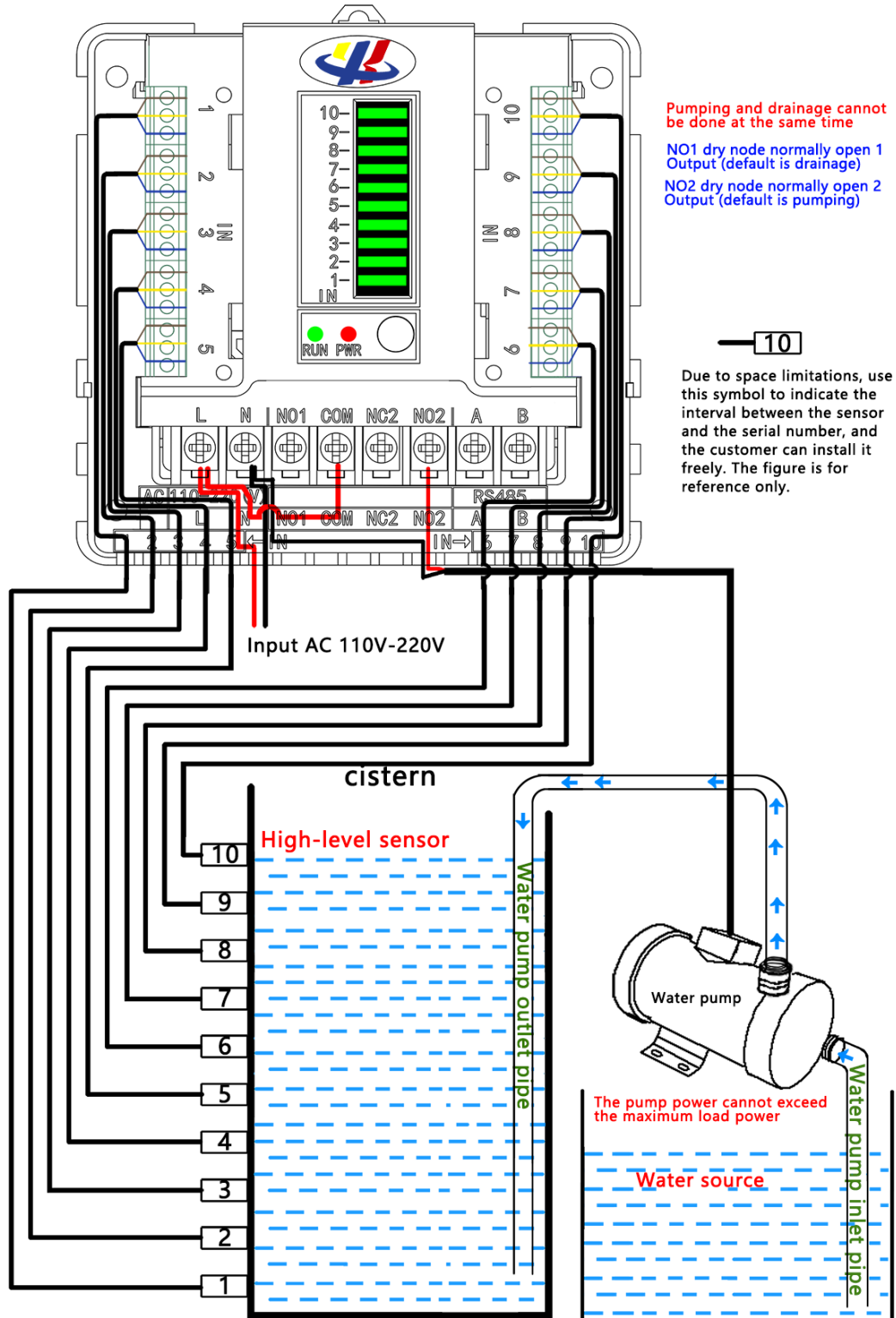
(9) XKC-CY10-9P wiring diagram

The figure below uses the intelligent non-contact liquid level controller CY10 + 9 non-contact liquid level sensors to achieve automatic water level control.



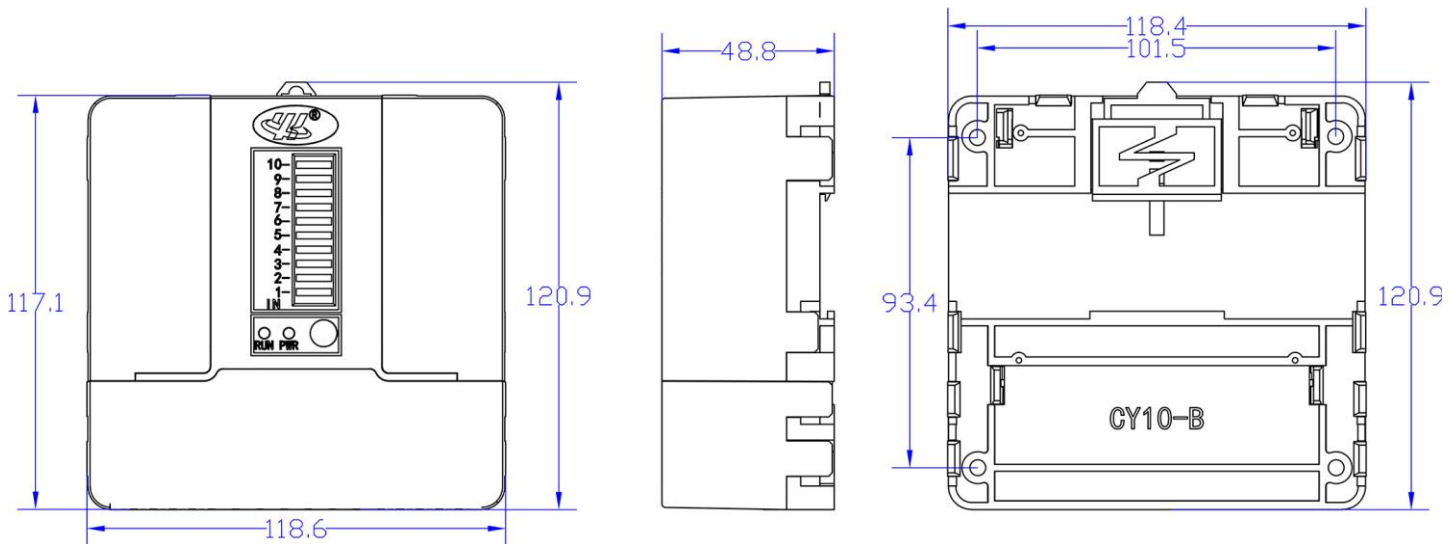
(10) XKC-CY10-10P wiring diagram

The figure below uses the intelligent non-contact liquid level controller CY10 + 10 non-contact liquid level sensors to achieve automatic water level control.



15th. Product size and physical map





16th. Other matters needing attention

1. When the controller fails, please check whether the wiring terminals of all sensors are loose, whether the wiring sequence is correct, and check whether the installation positions of the high-position sensor and the low-position sensor are correct. Whether the sensitivity of each sensor is adjusted to the appropriate position. After troubleshooting, press the power button to stop working.
2. The pump is not working properly, first check whether the power supply voltage and wiring are normal. Check the contents of the first point above to ensure that it is normal, and then check whether the connection position of the water pump is correct. Check whether the power of the water pump is below 1600W.
3. The controller must be installed in a ventilated, dry, pest-free and dust-less environment.
4. The control board circuit of the controller is not waterproof. Please install it in a dry and ventilated place as much as possible. At the same time, the user should take some protective measures against water.

17th. Correspondence between signal input and output

Note: Input signal: 0 means the voltage is low (0V), 1 means the voltage is high (5V).

18th. Communication protocol

1.1 The hardware adopts RS485.

1.2 The default configuration of the serial port:

Baud rate: 9600

Data bits: 8

Check Digit: None

Stop bit: 1

1.3 Data format:

Hexadecimal, the factory default upload data format: 62 33 09 00 00 00 00 00

1	2	4	5	6	7	8	9
ASCII command (B3)		Address high	Address low	Data high	Data low	Answer	Check (XOR8)
62	33	00	00	00	00	00	58

The first and second bytes: ASCII command code (b3) The third byte: data length (09)

The 4th and 5th bytes: slave address (high byte 00H~FEH, low byte 00H~FEH)

The 6th and 7th bytes: data byte, upload sensor data or send configuration data.

8th byte: response byte

The 9th byte: 1~8 byte check (XOR8 exclusive OR check)

1.1 Function instructions

62 34 09 00 00 00 00 00

Auto upload mode	Data format								
	1	2	3	4	5	6	7	8	9
	Command (B4)		Data length	Address high	Address low	Data high	Data low	Answer	Check (XOR8)
Configure automatic upload mode	62	34	09	00	00	00	00	00	5F
Successfully returned data	62	34	09	00	00	00	00	66	39

62 35 09 00 00 00 01 00

Data automatic upload speed	Data format								
	1	2	3	4	5	6	7	8	9
	Command (B5)		Data length	Address high	Address low	Data high	Data low	Answer	Check (XOR8)
Configure data upload speed	62	35	09	00	00	00	01	00	5F
Successfully returned data	62	35	09	00	00	00	01	66	39

Speed range: 0x01- 0x64 62 36 09 00 00 00 03 00

Configure the sensor	Data format								
	1	2	3	4	5	6	7	8	9
	Command (B6)		Data length	Address high	Address low	Data high	Data low	Answer	Check (XOR8)
	62	36	09	00	00	00	03	00	5E
Successfully returned data	62	36	09	00	00	00	03	66	38

The 6th and 7th bytes are the number of configured sensors (8421 code)

range: 0x0001- 0x03ff 62 37 09 00 00 00 03 00

Configure the relay	Data format								
	1	2	3	4	5	6	7	8	9
	Command (B7)		Data length	Address high	Address low	Data high	Data low	Answer	Check (XOR8)
	62	37	09	00	00	00	03	00	5F
Successfully returned data	62	37	09	00	00	00	03	66	39

The seventh byte is the status of the relay: 00 (fully closed) 01 (1 open 2 closed) 02 (1 closed 2 open) 03 (fully open)

62 30 09 00 00 00 C2 00

Configure baud rate	Data format								
	1	2	3	4	5	6	7	8	9
	Command (B0)		Data length	Address high	Address low	Data high	Data low	Answer	Check (XOR8)
	62	30	09	00	00	00	C2	00	99
Successfully returned data	62	30	09	00	00	00	C2	66	FF

Baud rate command lookup table

Baud rate	Command	Baud rate	Command
2400	C0	38400	C5
4800	C1	56000	C6
9600(Default value)	C2	56700	C7
14400	C3	115200	C8
19200	C4	128000	C9

62 39 09 00 00 FE FE FE

Restore factory settings	Data format								
	1	2	3	4	5	6	7	8	9
	Command (B9)		Data length	Address high	Address low	Data high	Data low	Answer	Check (XOR8)
	62	39	09	00	00	FE	FE	FE	AC
Successfully returned data	62	39	09	00	00	C2	00	66	F6

62 32 09 00 00 00 00 00

Configure the address	Data format								
	1	2	3	4	5	6	7	8	9
	Command (B2)		Data length	Address high	Address low	Data high	Data low	Answer	Check (XOR8)
	62	32	09	00	00	00	00	00	59

Successfully returned data	62	32	09	00	00	00	00	66	3F
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62 31 09 00 00 00 00 00

Read all configurations	Data format														
	1	2	3		4		5		6		7		8		9
	Command (B0)		Data length		Address high		Address low		Data high		Data low		Answer		Check (XOR8)
	62	31	09		00		00		00		00		00		5A
Successfully returned data	1	2	3	4	5	6	7	8	9	10	11	12	13		
	Command (B4)		Data length	Address high	Address low	Baud rate	Pattern	Transmission speed	High quantity	Low quantity	Relay	Answer	Check		
	62	31	0D	00	00	C2	00	0A	00	03	02	66	F1		

19th.Product warranty terms and instructions

(A) .Warranty service

1. Warranty period maintenance: from the date of purchase, the product host has a one-year free warranty. The company has the right to decide to repair or replace the faulty part. If it is replaced, the replacement part may be a new device or a repair product of the same category, function, and quality. The replaced faulty part belongs to the company; the product Resale and repair do not affect the warranty period. Products that have been repaired or replaced continue to enjoy the original remaining warranty period service. If the warranty period is less than three months after the repair, the repaired or replaced part shall be shipped from the date of delivery Warranty for three months; all products of the company are guaranteed for repair.

2. Loss upon arrival (DOA) replacement: From the day of purchase, you can enjoy a free replacement service within 7 days. Products with the following problems are defined as DOA equipment: the packing and packing list do not match after the first unpacking of the product; some or all of the components cannot be used normally after the first unpacking of the product (surface scratches or other things that do not affect the function of the device) Defects are not included); other hardware failures identified by our company's engineers remotely or locally.

(B). Applicable limitations of warranty

For the following situations, the company does not assume warranty responsibility:

1. The product is out of warranty; the surface of the product is fragile and damaged; the appearance of the product is seriously damaged, installation/use in abnormal environment, unauthorized disassembly and repair/modification, external power supply damage and other abnormal damage;
2. Damage caused by incorrect installation and use of the product by the user not following the requirements of the manual;
3. Damage caused by natural disasters and human negligence (fire, lightning, flooding, impact, etc.).

(C) .Accessories and consumables are not covered by the warranty.

(D) .Non-free warranty service

Within two years of product purchase, for non-warranty product (including components) failures and damages, you can choose paid maintenance services (free labor costs), and we will charge the transportation cost of repairing parts and

accessories according to the actual situation.

(E). Ways to obtain warranty service

It is recommended that you contact the dealer who purchased this product to obtain the warranty service. For the warranty, please present a valid warranty card (the dealer's stamp is required to take effect) or the purchase invoice/receipt: if you can't show it, the product's free warranty period 12 months from the product shipment date, and the latest DOA application deadline is 7 days from the product shipment date.

(F). Statement

1. The copyright of this manual belongs to Shenzhen Xingkechuang Technology Co., Ltd. (Xingkechuang) and its authorized licensors. Shenzhen Xingkechuang Technology Co., Ltd. (Xingkechuang) reserves all rights.
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3. The customer recognizes that the purpose of the design and production of the company's products does not involve use in products related to life support or other systems or products used in other dangerous activities or environments. Personal injury or death, property or environmental damage due to product failure (collectively referred to as high-risk activities). The company's products are artificially used in high-risk activities, and the company does not guarantee it and is not liable to customers or third parties.
4. Due to product version upgrades or other reasons, the contents of this manual may change. Xingkechuang reserves the right to modify the contents of this manual without any notice or prompt. This manual is only used as a guide. Xingkechuang makes every effort to provide accurate information in this manual. However, Xingkechuang does not guarantee that the contents of the manual are completely free of errors. All statements, information and suggestions in this manual do not constitute any express or Implied guarantee.
5. Not all models are available in all countries/regions

Please keep this manual properly. Before using the product, please read this manual carefully. When using the product, please be sure to operate in accordance with this manual. The company is not responsible for injuries and accidents caused by operations that do not follow this manual.

(G).Environmental protection This product meets the design requirements for environmental protection.The storage, use and disposal should comply with relevant national laws and regulations.Seek to proceed.

20th. Manual version

Version	Release date
V16	August 21, 2021