

JNC

Manual/Automatic Control Panel

DO16



V1.00

Catalogue

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PART 1.PRODUCT INTRODUCTION

1-1 Product Introduction

This product can be used for various controls in plant factories, livestock farms or breeding factories. It can start and stop manually on site and start and stop in the cloud. The status is fully controlled. It is a safe control and has the function of protecting equipment and avoiding quick settings of reversal (forward and reverse). device), with 4G (optional) and wifi communication, allowing you to control the device remotely without going to the site. This product has a web interface that can be viewed remotely in real time, as well as remotely controlled and viewed alarm records. This product is very suitable for places requiring various controls such as breeding, botanical gardens and animal husbandry.

1-2 Product Notes

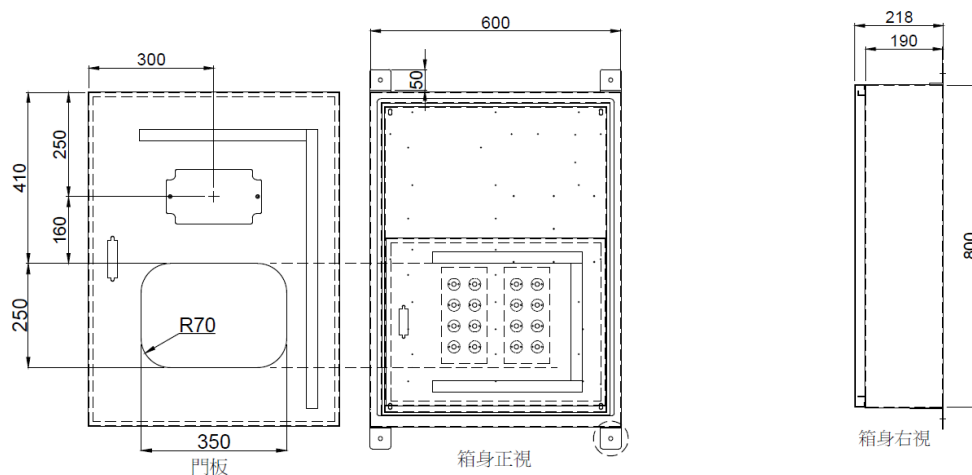
1. Please do not use it in areas with high vibration or strong electromagnetic interference to avoid product damage, ERROR and measurement errors.
 2. Before performing any repair or maintenance, please remove the power supply to prevent personal injury or product damage caused by accidental contact with the power supply.
 3. When installed in a polluted environment with conductive substances (such as metal dust, water, etc.), appropriate sealing measures should be taken.
 4. If any component or module of the product has been removed or disassembled, please do not operate it anymore and contact our company as soon as possible.
 5. When installed in a polluted environment with conductive substances (such as metal dust, water, etc.), appropriate ventilation, effective filtration or sealing measures should be taken.
- Our company is not responsible for any impact or damage caused to the reliability of this product due to improper use in accordance with this operating manual or exceeding the application or usage environment conditions described in the product specifications.

PART 2.PRODUCT DESCRIPTION

2-1 Product Features

- Solve the problem of no manual switches for IoT systems in field equipment.
- Modular manufacturing, no customization required, the product is stable and reliable.
- Easy maintenance, no need to check the wiring, fool-proof connectors, just replace the circuit board and it can be used normally.
- Install a check-free cable to quickly bring old disks to the Internet of Things.
- It has the function of protecting equipment and avoiding quick setting of reversal (forward and reverse equipment).
- Plug-in relays can be replaced quickly without stopping the machine.
- Can control up to 16 groups of loop devices.
- With power and signal lightning protection.
- Each group of Relay has 5 groups of time schedules and 7 groups of logic controls for setting.
- The control logic can be set by yourself without writing a program. It will not become a PLC orphan in the future.
- With 4G (optional) and wifi communication
- Optional load current detection can be used to instantly understand the status of the device and proactively push abnormal messages.
- On-site manual start and stop/cloud start and stop, complete status control, safe control.
- Applicable places: plant planting fields, livestock farms, fisheries farms, and breeding factories.

2-2 Product Size (mm)

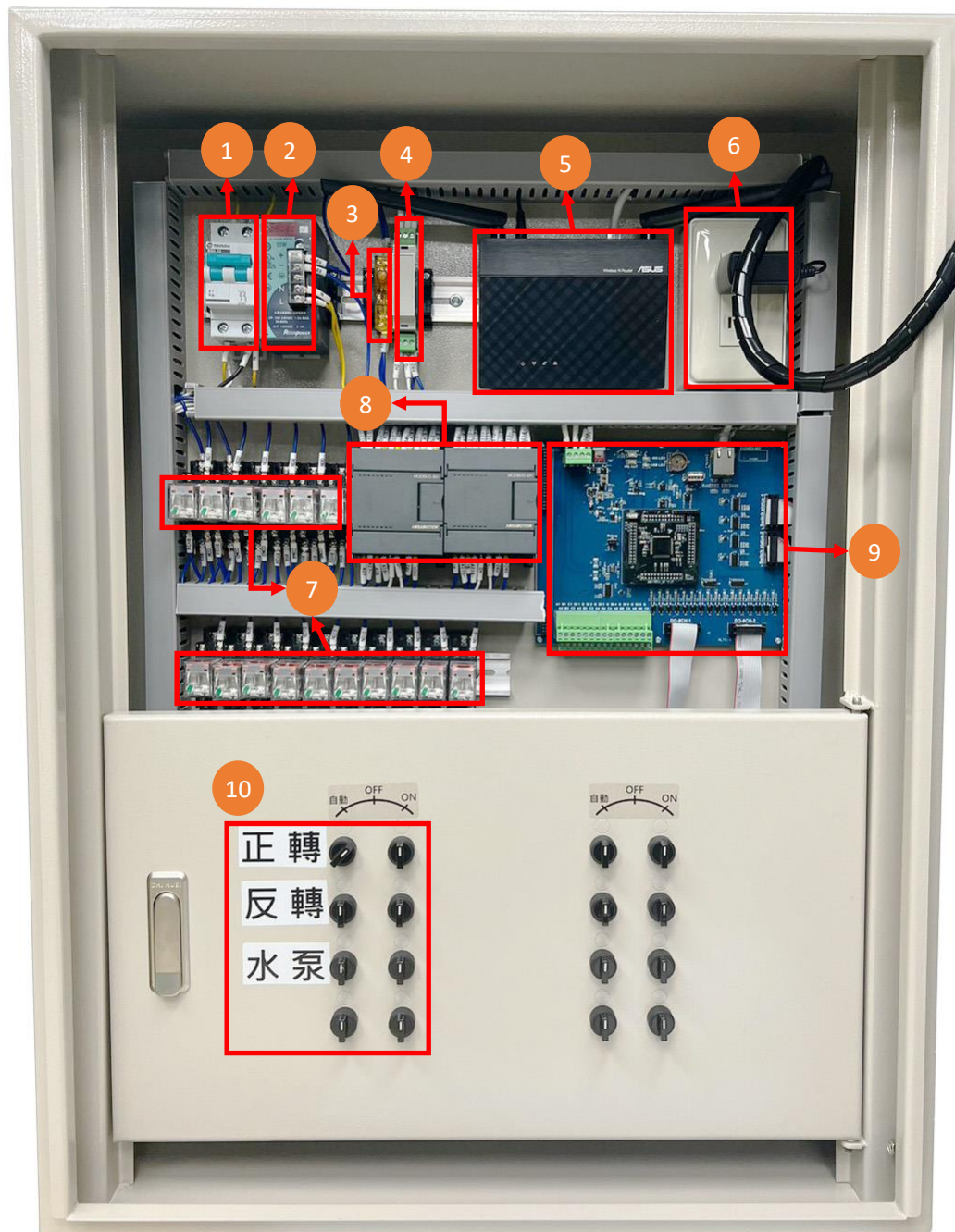


PART 3.PRODUCT SPECIFICATIONS

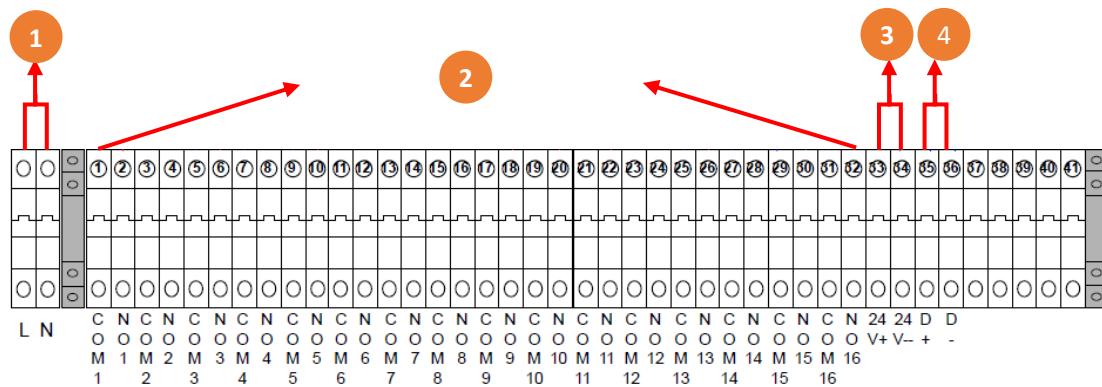
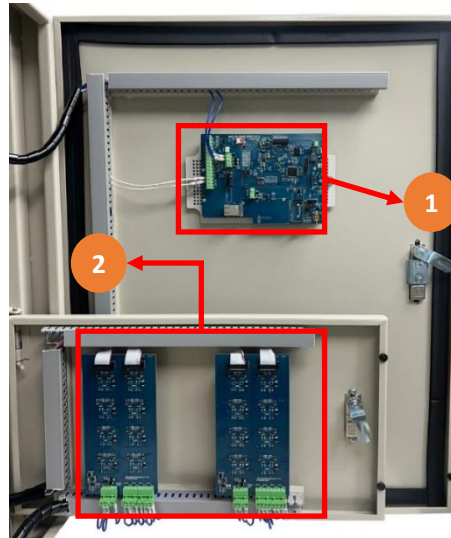
Model	DO16	
Power supply	♦AC input:100 ~ 240V(50/60Hz) ♦Power consumption:100W	
Communication function	Ethernet interface	RJ-45 Ethernet network standard equipped with Web Service function
	Communication interface	RS-485
	Communication protocol	Modbus RTU · Modbus TCP · Web Service
Shell size	Outdoor double door with window 600x800x210 (W x H x D)	
Load current detection	Detection range 0~50A, 8 or 16 groups (optional)	
Number of control points	8/16 groups	

PART 4.PRODUCT INSTRUCTIONS

4-1 Equipment component location description (internal)



Code	Name/Image	Function Description
1	No fuse switch	When the wire is short-circuited or the power consumption is overloaded, the fuseless switch will trip to protect the circuit.
2	Power Supplier	● Input 100~240VAC ● Output 24VDC
3	Fuse Holder	When a wire is shorted or power usage is overloaded, the fuse will blow to protect the circuit.
4	485 protector	Suppress surges and noise to protect the signal stability of 485
5	Router	Make the DO16 mainboard and DO16 system board belong to the same local network and connect to DO16's WiFi: ● IP input 192.168.0.160, can be connected to DO16 motherboard ● IP input 192.168.0.88, can be connected to DO16 control board
6	Socket	Depending on the external power source, 100~240VAC power supply can be provided
7	Relay	The DO16 main board controls the relay to control the start and stop of the equipment.
8	MODBUS-AI08 (optional)	Capture the 0~10v voltage value, convert it to the current value, and estimate the power consumption.
9	DO16 motherboard	It is controlled by the DO16 system board, and then the DO16 main board controls the start and stop of the Relay.
10	Three cut switch	1. Switch to the left for automatic mode 2. Switch to the middle to turn off the manual mode 3. Switch to the right to turn on the manual mode



PART 5.CLOUD PLATFORM MONITORING SYSTEM HOMEPAGE

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Code	Name/Image	Function Description
1	Device name	The name of the control item on DO16 can be set
2	Equipment start and stop	The current status of the device. If the device is turned on, it will display "ON", and if it is turned off, it will display "ON" (OFF).
3	Control method	1. When the icon is displayed, it will be automatically turned on or off according to the schedule or logic set by the DO16 system board. 2. When the icon is displayed, it can be turned on or off manually remotely without having to go to the site to turn it on or off; you can click ON/OFF in the red box 2 in the picture above to control the turning on or off of the device. 3. When the icon is displayed, it means that the three-switch switch has been switched to on-site control. If it is switched to the middle, the equipment is turned off, and if it is switched to the right, the equipment is turned on.
4	Current value	Display the current current value of the device

PART 6.DO16 OPERATION MODE

6-1 How to use DO16 cabinet



※Instructions for use :

1. The red box in the picture above is a three-way switch, and one three-way switch is one device.

There are 16 three-way switches in the picture above, and 16 devices can be controlled.

2. There are three ways to turn the three-way switch, which can be left, middle or right.

2-1. When turned to the left, it is in remote mode, and the device can be controlled remotely; or will be displayed **自動** or **手動** on the cloud platform, **自動** which is a scheduled control device, **手動** which is a remote manual control device.

2-2. When it is turned to the middle or right, it is on-site control, and will be displayed **現場控制** on the cloud platform; when it is turned to the right, it is on-site control (ON), and when it is turned to the middle, it is off-site control (OFF).

PART 7.TROUBLESHOOTING

7-1 Problems And Solutions

No.	Problem	Solutions
1	Unable to connect to the network	Please check whether the RJ45 light is on and flashing, and confirm whether the network cable is functioning properly.
2	The time and date are incorrect	If the power is cut off for a while and then turned on again, the time and date are still wrong, it is judged that the button battery is discharged.

PART 8.REVISION HISTORY

Version	Revision date	Revision description	Maintenance personnel
V1.00	2023/08/30	Create DO16 operation manual	Siao jing jhou

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