

# Eight PNP inputs, eight PNP outputs, RS-485/232 switch data acquisition module

## **WJ68**

#### **Product features:**

- •Eight channels of PNP switch input, eight channels of PNP switch output
- •The input level status can be read through the RS-485/232 interface
- •The output status can be set through the RS-485/232 interface
- •The signal input, output, and power supply are not isolated from each other
- •Wide power supply range: 8~32VDC
- •High reliability, easy programming, and easy application
- •Standard DIN35 rail installation, convenient for centralized wiring
- Users can program module addresses, baud rates, etc
- Supports Modbus RTU communication protocol and automatic recognition protocol
- •Low cost, small size, modular design
- Dimensions: 120 x 70 x 43mm

#### **Typical applications:**

- •Level signal measurement, monitoring, and control
- •RS-485 remote I/O, data acquisition
- •Intelligent building control, security engineering and other application systems
- •RS-232/485 bus industrial automation control system
- •Industrial site signal isolation and long-distance transmission
- Equipment operation monitoring and control
- •Measurement of sensor signals
- Acquisition and recording of industrial field data
- Switch signal acquisition

#### **Product Overview:**

The WJ68 product realizes signal acquisition and control between sensors and hosts, used to detect switch signals or control device operation. The WJ68 series products can be applied in industrial automation control systems with RS-232/485 bus, measurement and control of switch signals, measurement and output of high and low level signals, as well as industrial field signal isolation and long-distance transmission, etc.

The product includes power conditioning, switch quantity acquisition, switch quantity output, and RS-485 serial communication. Each serial port can connect up to 255 WJ68 series modules, and the communication method adopts ASCII code communication protocol or MODBUS RTU communication protocol. The baud rate can be set by code and can be hung on the same RS-485 bus as control modules from other manufacturers, making it easy for computer







WJ68



Figure 2 Internal Block Diagram of WJ68 Module

The WJ68 series products are intelligent monitoring and control systems based on microcontrollers. All user set configuration information such as address, baud rate, data format, checksum status, etc. are stored in non-volatile memory EEPROM.

The WJ68 series products are designed and manufactured according to industrial standards, with no isolation between signal inputs/outputs, strong anti-interference ability, and high reliability. The working temperature range is -45  $^{\circ}$ C to+85  $^{\circ}$ C.

#### **Function Introduction:**

The WJ68 remote I/O module can be used to measure eight PNP switch signals and has eight PNP switch outputs.

1. Switching signal input and output

8-channel switch signal input, capable of connecting dry and wet contacts. Please refer to the wiring diagram for details; 8-way switch PNP signal output, with an output voltage equal to the power supply voltage and a maximum output current of 100mA. Be careful not to overload the output, otherwise it will burn out the output channel.

2. Communication Protocol

Communication interface: 1 standard RS-485 communication interface or 1 standard RS-232 communication interface, please specify when ordering and selecting.

Communication Protocol: Supports two protocols, the character protocol defined by the command set and the MODBUS RTU communication protocol. The module automatically recognizes communication protocols and can achieve network communication with various brands of PLCs, RTUs, or computer monitoring systems.

Data format: 10 digits. 1 start bit, 8 data bits, and 1 stop bit.

The communication address (0-255) and baud rate (2400, 4800, 9600, 19200, 38400, 57600, 115200bps) can be set; The communication network can reach a maximum distance of 1200 meters and is connected through twisted pair shielded cables.

High anti-interference design of communication interface,  $\pm 15$ KV ESD protection, communication response time less than 100mS.

3, anti-interference

Checksums can be set as needed. There is a transient suppression diode inside the module, which can effectively suppress various surge pulses and protect the module.

## **Product selection:**



Communication interface

485: Output as RS-485 interface

232: Output as RS-232 interface

Selection Example 1: Model: **WJ68-232** indicates that the communication interface is RS-232 Selection Example 2: Model: **WJ68-485** indicates that the communication interface is RS-485

## WJ68 General Parameters:

Shenzhen WAYJUN Industrial Automation



(Typical @+25 °C, Vs is 24VDC) Input type: switch input, 8 channels (DI0~DI7). Low level: Input<1V High level: Input 3.5~30V Input resistance: 10K  $\Omega$ Output type: Switching output, 8 channels (DO0~DO7). PNP output, with an output voltage equal to the power supply voltage and a maximum load current of 100mA, can directly drive intermediate relays. Communication: RS-485 or RS-232 standard character protocol and MODBUS RTU communication protocol Baud rates (2400, 4800, 9600, 19200, 38400, 57600, 115200bps) can be selected by software The address (0-255) can be selected by software Communication response time: 100 ms maximum Working power supply:+8~32VDC wide power supply range, with internal anti reverse and overvoltage protection circuits Power consumption: less than 0.5W Working temperature: -45~+80 °C Working humidity: 10~90% (no condensation) Storage temperature: -45~+80 °C Storage humidity: 10~95% (no condensation) Isolation voltage resistance: non isolated Dimensions: 120mm x 70mm x 43mm

Pin d	in definition:								
Pi	n	name	Description	Pin	name	Description			
	DO7	Channel 7 switch signal output	alaman	DO1	Channel 1 switch signal output				
	one		terminal	eleven		terminal			
	wo	DO6	Channel 6 switch signal output	twolvo	DO0	Channel 0 switch signal output			
ľ	lwu		terminal	tweive		terminal			
4		DO5	Channel 5 switch signal output	thirtee	DI0	Channel 0 switch signal input			
	iree		terminal	n		terminal			
f	our	DO4	Channel 4 switch signal output	fourte	DI1	Channel 1 switch signal input			
	our		terminal	en		terminal			
-   f	fivo	DO3	Channel 3 switch signal output	fiftaan	DI2	Channel 2 switch signal input			
	live		terminal	meen		terminal			
	civ	DO2	Channel 2 switch signal output	sixtee	DI3	Channel 3 switch signal input			
	51A		terminal	n		terminal			
60	won	DATA+	RS-485 signal positive terminal	sevent	DI4	Channel 4 switch signal input			
50	even			een		terminal			
	iaht	DATA-	RS-485 signal negative terminal	eighte	DI5	Channel 5 switch signal input			
	ignt			en		terminal			
"	nine	PW+	Positive end of power supply	ninete	DI6	Channel 6 switch signal input			
	mit			en		terminal			
	ten	GND	Negative terminal of power supply,	twenty	DI7	Channel 7 switch signal input			
	ien		signal ground	twenty		terminal			

Table 1 Pin Definition











#### Wiring diagram for switch signal input



Wiring diagram for switch signal output

#### WJ68 Character Protocol Command Set:

The factory initial settings of the module are as follows:

The address code is 01

Baud rate 9600 bps

#### Prohibition of checksum verification

If using an RS-485 network, a unique address code must be assigned, which is a hexadecimal number between 00 and FF. Since the address codes of new modules are the same, their addresses will conflict with other modules. Therefore, when building the system, you must reconfigure the addresses of each WJ68 module. After connecting the WJ68 module power line and RS485 communication line, the address of the WJ68 module can be modified through configuration commands. The baud rate and checksum status also need to be adjusted according to the user's requirements. Before modifying the baud rate and checksum status, the module must first enter the default state, otherwise it cannot be modified.

#### Method to put the module into default state:

There is an Initiate switch located on the side of the WJ68 module. Turn the Initiat switch to the Initiat position, then turn on the power, and the module will enter the default state. In this state, the configuration of the module is as follows:

The address code is 00

Baud rate 9600 bps

Prohibition of checksum verification

At this point, the baud rate, checksum status, and other parameters of the WJ68 module can be modified through configuration commands. When unsure of the specific configuration of a module, the Initiat switch can also be turned to the Initiat position to put the module into default mode, and then the module can be reconfigured.

#### Note: Please turn the Initiat switch to the NORMAL position during normal use.

The character protocol command consists of a series of characters, such as the prefix, address ID, variables, optional checksum bytes, and a command terminator (**cr**) used to display the command. The host only commands one WJ68 module at a time, except for synchronous commands with wildcard address "\* \*".

#### Command format: (Leading Code) (Addr) (Command) [data] [checksummary] (cr)

The leading code is the first letter in the command. All commands require a command prefix, such as%, \$, #, @ Wait.



#### 1-character

The address code of the (Addr) module, if not specified below, ranges from 00 to FF (hexadecimal). 2-character (Command) displays command code or variable values. Variable length

[data] Some data required for output commands. Variable length

The Checksum in parentheses is an optional parameter that is only required when checksum is enabled. 2-character

(cr) is a control code symbol used for recognition, and (cr) serves as the carriage return terminator with a value of 0x0D. 1-character

When checksum is enabled, [Checksum] is required. It occupies 2 characters. Both commands and responses must be accompanied by checksum features. The checksum is used to check all input commands to help you detect errors in host to module commands and module to host responses. The checksum character is placed after the command or response character and before the carriage return.

Calculation method: Two characters, hexadecimal number, which is the sum of the ASCII code values of all the characters previously sent, and then combined with the hexadecimal number 0xFF to obtain the result.

Application example: Prohibit checksum

User command **\$002 (cr)** 

Module response! 00020600 (cr)

Enable checksum

User command **\$002B6 (cr)** 

Module response! 00020600 A9 (cr)

 $^{\circ}$  = 0x24  $^{\circ}$  0' = 0x30  $^{\circ}$  2' = 0x32

B6=(0x24+0x30+0x30+0x32) AND 0xFF

'!' = 0x21 '0' = 0x30 '2' = 0x32 '6' = 0x36

A9=(0x21+0x30+0x30+0x30+0x32+0x30+0x36+0x30+0x30) AND 0xFF

Response to Command:

The response information depends on various commands. The response also consists of several characters, including the initial code, variables, and ending identifier. There are two types of initial codes for response signals, '!' Or '>' represents a valid command while '?' It represents invalidity. By checking the response information, it is possible to monitor whether the command is valid

- Note: In some cases, many commands use the same command format. To ensure that the address you are using is correct in a command, if you use the wrong address that represents another module, the command will take effect in that module, resulting in an error.
  - 2. Commands must be entered in uppercase letters.

3. (cr) represents the Enter key on the keyboard, do not write it directly, it should be typed with the Enter key.

#### 1. Read switch status command

Explanation: Read back all output channel switch status and input channel switch status from the module.

Command format: \$AA6 (cr)

Parameter description: \$delimiter. Hexadecimal is 24H

AA module address, with a value range of 00 to FF (hexadecimal). The factory address is 01, which is converted to

hexadecimal as the ASCII code for each character. If address 01 is replaced with hexadecimal, it will be 30H and 31H.

(cr) End symbol, upper computer enter key, hexadecimal is 0DH.

Response format:! The (dataOutput) (dataInput) 00 (cr) command is valid.

? The AA (cr) command is invalid or an illegal operation.



# Signal Isolators & Conditioners

DO3

Bit 3

DO2

Bit2

DO1

Bit 1

DO0

Bit 0

DO4

Bit 4

Parameter description:! Boundary symbol. Hexadecimal is 21H

(dataOutput) represents the read output switch status, consisting of two hexadecimal numbers,

The first number represents

channels 7 to 4

The second number represents

- channels 3 to 0
  - Bit value is 0:

Output low level

Bit value is 1:

Output high level

Hexadecimal is the ASCII code for each character.

(dataInput) represents the read switch status, consisting of two hexadecimal numbers,

The first number represents channels 7 to 4

The second number represents

channels 3 to 0  $\,$ 

Bit value is 0: Input is low level

Bit value 1: Input is high level.

Hexadecimal is the ASCII code for each character.

The delimiter indicates that the command is invalid.

AA represents the input module address

?

(cr) End symbol, upper computer enter key, hexadecimal is 0DH.

Other instructions: If the format is incorrect, the communication is incorrect, or the address does not exist, the module will not respond.

DO7

Bit7

DO6

Bit 6

DO5

Bit 5

If the serial communication software you are using cannot input the enter key character, please switch to hexadecimal format for communication.

Application example: User command (character format) **\$016 (cr)** 

(Hexadecimal format) 243031360D

Module response (character format)! 221100 (cr)

(Hexadecimal format): 213232313130300D

Explanation: The output data read is 22, converted to binary is 0010 0010. Therefore, the output switch status on the address 01H module is:

Channel 0: Low Level Channel 1: High Level Channel 2: Low Level Channel 3: Low Level

Channel 4: Low Level Channel 5: High Level Channel 6: Low Level Channel 7: Low Level

The input data read is 11, converted to binary is 0001 0001, so the input switch status on the address 01H

#### module is:

Channel 0: High Level Channel 1: Low Level Channel 2: Low Level Channel 3: Low Level

Channel 4: High Level Channel 5: Low Level Channel 6: Low Level Channel 7: Low Level

#### 2. Set switch output command

Description: Set the switch status of all output channels.

#### Command format: # AABB (data) (cr)

Parameter description: # delimiter. Hexadecimal is 24H

AA module address, with a value range of 00 to FF (hexadecimal). The factory address is 01, which is converted to

hexadecimal as the ASCII code for each character. If address 01 is replaced with hexadecimal, it will be 30H and 31H.

			,				
DI7	DI6	DI5	DI4	DI3	DI2	DI1	DI0
Bit7	Bit 6	Bit 5	Bit 4	Bit 3	Bit2	Bit 1	Bit 0

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# Signal Isolators & Conditioners

BB channel selection, can choose all output channels or a single output channel. Setting BB to 00 means setting all output channels. If setting a single channel, the first character B must be set to 1, and the second character B can be set to 0-7, representing 8 DO output channels.

(Data) Output value.

1, If it is set for all channels (BB=00),

Then there are two hexadecimal

DO7	DO6	DO5	DO4	DO3	DO2	DO1	DO0			
Bit7	Bit 6	Bit 5	Bit 4	Bit 3	Bit2	Bit 1	Bit 0			
	1									

numbers,

The first number represents channels 7 to 4

The second number represents channels 3 to 0

Bit value is 0:

Set output low level

Bit value is 1:

Set output high level

2. If it is set for a single channel (BB=1X, where X represents the channel to be set), it can only be set to 00 or 01,

00: Set X channel output low level

01: Set X channel output high level

(cr) End symbol, upper computer enter key, hexadecimal is 0DH.

Response format:>(cr) command is valid.

? The AA (cr) command is invalid or an illegal operation.

Parameter description:>delimiter. Hexadecimal is 3EH.

The delimiter indicates that the command is invalid.

AA represents the input module address

?

(cr) End symbol, upper computer enter key, hexadecimal is 0DH.

Other instructions: If the format is incorrect, the communication is incorrect, or the address does not exist, the module will not respond.

If the serial communication software you are using cannot input the enter key character, please switch to hexadecimal format for communication.

Application example 1: User command (character format) # 010022 (cr)

(Hexadecimal format) 233031303032320D

Module response (character format)>(cr)

(Hexadecimal format): **3E0D** 

Explanation: Module address 01H, set the output of all channels (BB=00) to 22H, and convert it to binary as 0010 0010. Therefore, the switch status of the output on module address 01H is:

Channel 0: Low Level Channel 1: High Level Channel 2: Low Level Channel 3: Low Level

Channel 4: Low Level Channel 5: High Level Channel 6: Low Level Channel 7: Low Level

Application Example 2: User Command (Character Format) # 011201 (cr)

(Hexadecimal format) 233031313230310D

Module response (character format)>(cr)

(Hexadecimal format): 3E0D

Explanation: Module address 01H, set the high level of channel 2.

#### 3. Configure WJ68 module command

Explanation: Set the address, baud rate, and checksum status for a WJ68 module. The configuration information is



stored in non-volatile memory EEPROM.

Command format:% AANNTTCCFF (cr)

Parameter description:% delimiter.

AA module address, with a value range of 00 to FF (hexadecimal). The factory address is 01, which is converted to hexadecimal as the ASCII code for each character. If address 01 is replaced with hexadecimal, it will be 30H and 31H.

NN represents the new module hexadecimal address, with values ranging from 00 to FF. Convert to hexadecimal to ASCII code for each character. If address 18 is replaced with hexadecimal as 31H and 38H.

TT uses hexadecimal to represent type encoding. The WJ68 product must be set to 00.

CC uses hexadecimal to represent baud rate encoding.

Baud rate code	Baud rate
04	2400 baud
05	4800 baud
06	9600 baud
07	19200 baud
08	38400 baud
09	57600 baud

#### Table 2 Baud rate codes

FF uses 8-bit hexadecimal to represent data format and checksum. Note that from bits0 to bits5, it is not necessary to set it to zero.



Table 3 Data format, checksum code

Bit7: Reserved bit, must be set to zero

Bit6: checksum status, 0: prohibited; For 1: Allow

Bit5-bit0: No need, it must be set to zero.

(cr) End symbol, upper computer enter key, hexadecimal is 0DH.

Response format:! The AA (cr) command is valid.

? The AA (cr) command is invalid or an illegal operation, or the Initiat switch is not turned to the Initiat position before changing the baud rate or checksum.

Parameter description:! The delimiter indicates that the command is valid.

The delimiter indicates that the command is invalid.

AA represents the input module address

(cr) End symbol, upper computer enter key, hexadecimal is 0DH.

Other instructions: If you are configuring the module for the first time, AA=01H, NN equals the new address. If the module is reconfigured to change the address, input range, and data format, AA equals the currently configured address, and NN equals the current or new address. If you want to reconfigure the module to change the baud rate or checksum status, you must turn the Initiat switch to the Initiat position to enter the default state of the module. At this time, the module address is 00H, that is, AA=00H, NN is equal to the current or new address.

If the format is incorrect, the communication is incorrect, or the address does not exist, the module will not respond.

Application example: User command% 0111000600 (cr)



Module response! 11(cr) Explanation:% delimiter.

01 means that the original address of the WJ68 module you want to configure is 01H.

11 indicates that the new module's hexadecimal address is 11H.

**00** type code, WJ68 product must be set to 00.

06 represents a baud rate of 9600 baud.

**00** indicates that checksum is prohibited.

#### 4. Read configuration status command

Explanation: Read configuration for a specified WJ68 module.

Command format: \$AA2 (cr)

Parameter description: \$delimiter.

AA module address, with a value range of 00 to FF (hexadecimal).

 $\mathbf{2}$  represents the command to read the configuration status

(cr) End symbol, upper computer enter key, hexadecimal is 0DH.

Response format:! The AATTCCFF (cr) command is valid.

? The AA (cr) command is invalid or an illegal operation.

Parameter description:! Boundary symbol.

AA represents the input module address.

TT stands for type code.

**CC** stands for baud rate encoding. See Table 2

FF is shown in Table 3

(cr) End symbol, upper computer enter key, hexadecimal is 0DH.

Other instructions: If the format is incorrect, the communication is incorrect, or the address does not exist, the module will not respond.

Application example: User command \$302 (cr)

Module response! 300F0600(cr)

Explanation: Boundary symbol.

**30** indicates that the WJ68 module address is 30H.

**00** represents the input type code.

06 represents a baud rate of 9600 baud.

**00** indicates that checksum is prohibited.

#### 5. Read module name command

Explanation: Read the module name for a specified WJ68 module.

Command format: \$AAM (cr)

Parameter description: \$delimiter.

AA module address, with a value range of 00 to FF (hexadecimal).

M represents the command to read the module name

(cr) End symbol, upper computer enter key, hexadecimal is 0DH.

Response format:! The AA (Modulus Name) (cr) command is valid.

? Invalid or illegal operation of AA (cr) command

Parameter description:! The delimiter indicates that the command is valid.

? The delimiter indicates that the command is invalid.

AA represents the input module address.

Module Name WJ68



(cr) End symbol, upper computer enter key, hexadecimal is 0DH.

Other instructions: If the format is incorrect, the communication is incorrect, or the address does not exist, the module will not respond.

Application example: User command **\$08M (cr)** 

Module response! 08WJ68 (cr)

Explanation: The module at address 08H is WJ68.

#### 6. Set reset output command

Description: Set the reset output state of the specified module.

Command syntax: \$AA7VV (cr)

Parameter description: \$delimiter.

AA module address, with a value range of 00 to FF (hexadecimal).

7 represents the command to enable or disable the data acquisition channel of the module

VV is two hexadecimal numbers.

The first number represents channels 7 to 4

The second number represents channels 3 to 0

Bit value is 0:

Set output low level

Bit value is 1:

Set output high level

DO7	DO6	DO5	DO4	DO3	DO2	DO1	DO0		
Bit7	Bit 6	Bit 5	Bit 4	Bit 3	Bit2	Bit 1	Bit 0		
τ 7τ 7									

(cr) End symbol, enter key on the upper computer (0DH).

Response syntax:! The AA (cr) command is valid.

? Invalid or illegal operation of AA (cr) command

Parameter description:! The delimiter indicates that the command is valid.

? The delimiter indicates that the command is invalid.

AA represents the input module address.

(cr) End symbol, enter key on the upper computer (0DH).

Other instructions: If there is a syntax error, communication error, or if the address does not exist, the module will not respond.

Application example: User command **\$017FF (cr)** 

Module response! 01 (cr)

Explanation: Set the channel value to 0xFF.

Set all output high levels.

## Modbus RTU communication protocol:

The factory initial settings of the module are as follows: The Modbus address is 01 Baud rate 9600 bps

#### Method to put the module into default state:

There is an Initiate switch located on the side of the WJ68 module. Turn the Initiat switch to the Initiat position, then turn on the power, and the module will enter the default state. In this state, the module temporarily returns to its default state: address 01, baud rate 9600. When unsure of the specific configuration of a module, users can query the address and baud rate registers 40201-40202 to obtain the actual address and baud rate of the module, or modify the address and baud rate as needed.

Note: Please turn the Initiat switch to the NORMAL position during normal use.

Supports Modbus RTU communication protocol, with command format following the standard Modbus RTU communication protocol.

Support function code 01, read coil status. 1 represents high level, 0 represents low level.

Support function code 05, set a single coil. 1 represents high level, 0 represents transistor disconnected.

Support function code 03 (read hold register) and function code 06 (write single register),

#### Example of Modbus RTU communication protocol application:

1. Supports Modbus RTU communication protocol function code 01 (reading coil status), with command format following the standard Modbus RTU communication protocol.

Communication example: If the module address is 01, send **010100000083DCC** in hexadecimal to obtain the data in the register.

01	01	00	00	00	08	3D	CC
Module	Read coil status	High position of	Low position of	High number of	Low number of	CRC check low	CRC check high
address		coil address	coil address	coils	coils	bit	bit

If the module replies: **010101031189**, the read data is 0x03, and the last bit is changed to binary, which is 0000 0011. This indicates that channels 2 to 7 of the output transistor are currently disconnected, while channels 1 and 0 are connected.

01	01	01	03	eleven	eighty-nine
Module	Read coil status	The number of	data	CRC check low bit	CRC check high bit
address		bytes in the data			



2. Supports Modbus RTU communication protocol function code 05 (setting a single coil), and the command format follows the standard Modbus RTU communication protocol.

Communication example: If the module address is 01, send in hexadecimal: **01050000FF008C3A**, and the data is 0xFF00, indicating a high level setting. If the data is 0x0000, it means to disconnect the transistor (command: **01050000000CDCA**)

01	05	00	00	FF	00	8C	3A
Module	Set up a single	High position of	Low position of	data-high	data-low	CRC check low	CRC check high
address	coil	coil address	coil address			bit	bit

#### If the module replies: 01050000FF008C3A, the setting is successful

01	05	00	00	FF	00	8C	3A
Module	Set up a single	High position of	Low position of	data-high	data-low	CRC check low	CRC check high
address	coil	coil address	coil address			bit	bit

#### Register Description:

Address 0X (PLC)	Address (PC, DCS)	Data content	attribu	Data Explanation
			te	
00001	0000	Output switch	Read/	Output status of channel 0
		quantity	Write	
00002	0001	Output switch	Read/	Output status of channel 1
		quantity	Write	
00003	0002	Output switch	Read/	Output status of channel 2
		quantity	Write	
00004	0003	Output switch	Read/	Output status of channel 3
		quantity	Write	
00005	0004	Output switch	Read/	Output status of channel 4
		quantity	Write	
00006	0005	Output switch	Read/	Output status of channel 5
		quantity	Write	
00007	0006	Output switch	Read/	Output status of channel 6
		quantity	Write	
00008	0007	Output switch	Read/	Output status of channel 7
		quantity	Write	
00033	0032	Input switch	read-o	Level status of channel 0
		quantity	nly	
00034	0033	Input switch	read-o	Level status of channel 1
		quantity	nly	
00035	0034	Input switch	read-o	Level status of channel 2
		quantity	nly	



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00036	0035	Input switch	read-o	Level status of channel 3
00037	0036	Input switch	read-o	Level status of channel 4
		quantity	nlv	Level status of chamier 1
00038	0037	Input switch	read-o	Level status of channel 5
		quantity	nly	
00039	0038	Input switch	read-o	Level status of channel 6
		quantity	nly	
00040	0039	Input switch	read-o	Level status of channel 7
		quantity	nly	
Address 4X (PLC)	Address (PC, DCS)	Data content	attribu	Data Explanation
			te	
forty thousand and	0000	Output switch	Read/	0x0000~0x00FF, 7~0
one		quantity	Write	channels
forty thousand and	0032	Input switch	read-o	$0 \times 0000 \sim 0 \times 00FF,$ 7~0
thirty-three		quantity	nly	channels
forty thousand two	0200	Module address	Read/	Integer, effective after
hundred and one			Write	restart, range
				0x0000-0x00FF
forty thousand two	0201	Baud rate	Read/	Integer, effective after
hundred and two			Write	restart, range
				0x0004-0x000A
				0x0004 = 2400 bps,
				0x0005 = 4800  bps
				0x0006 = 9600  bps,
				0x0007 = 19200  bps
				0x0008 = 38400  bps,
				0x0009 = 5/600  bps
				0x000A - 1132000ps
forty thousand two	0210	Module Name	read-o	High bit: 0x00 Low bit: 0x60
hundred and eleven			nly	

Table 5 Modbus Rtu Register Description

## Dimensions: (Unit: mm)





Can be installed on standard DIN35 rails

#### guarantee:

Within two years from the date of sale, if the user complies with the storage, transportation, and usage requirements and the product quality is lower than the technical specifications, it can be returned to the factory for free repair. If damage is caused due to violation of operating regulations and requirements, device fees and maintenance fees shall be paid.

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