

## **DAUDIN GFMS-RM01S Remote I O Module System User Manual**

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**DAUDIN GFMS-RM01S Remote I O Module System** 





#### **Product Information**

The GFMS-RM01S Remote I/O Module System Configuration includes a master Modbus RTU with one port, a digital input with 16 channels (GFDI-RM01N), a digital output with 16 channels (GFDO-RM01N), a power supply with 24V/48W (GFPS-0202), a power supply with 5V/20W (GFPS-0303), and an interface module with an 8-pin RJ45 female connector/RS-485 interface (0170-0101). The interface module is used externally to convert FATEK PLC RS485's communication port (Modbus RTU) to a RJ45 connector. The main controller is in charge of the management and dynamic configuration of I/O parameters and so on. The power module and interface module are standard for remote I/Os, and users can choose the model or brand they prefer.

## **Product Usage Instructions**

## 1. Remote I/O Module System Configuration List

Refer to the table of contents, and go to section 1 for the Remote I/O Module System Configuration List. This section provides a list of parts, specifications, and descriptions of the product components included in the system configuration.

## 2. FATEK PLC Connection Setup

Refer to section 2 for FATEK PLC Connection Setup. This chapter explains how to use the WinProladder program to connect FATEK PLC with the Remote I/O Module System Configuration.

#### 2.1 FATEK PLC Hardware Connection

To connect the Remote I/O Module System Configuration to FATEK PLC, follow these steps:

- 1. Locate the connection port on the top of the FATEK PLC machine. For example, take FBs-10MAR2-AC, which uses Port2 (RS485 pin).
- 2. Connect Port2 (RS485 A/B) on the top of the machine to the interface module (1/2) to convert it into an RJ45 connector, which
  - will be connected to the main controller.

## 2.2 FATEK PLC Connection Setup

To set up the communication between FATEK PLC and the Remote I/O Module System Configuration using the

WinProladder program, follow these steps:

- Launch WinProladder and set up the communication ports. This demonstration utilizes communication module CB55 RS485 with Port2 in its address. The communication parameter setting must be consistent to enable communication.
- 2. Edit the program by clicking on the Set up program block diagram, then from the dropdown menu, select Communication Commands, and then select M-BUS.
- 3. Select Function Commands:
  - Pt: The address of the port for selecting a Modbus communication module
  - · SR: Starting registering for the communication program
  - WR: The starting register running the commands will take up totally of 8 registers. In this example, we select 2, R5000, and R3000.
- 4. Refer to Internal Related Relays for Communication Port. The form's starting address must be the same as that of the register from the SR command.
- 5. Set the Communication Commands.

## Remote I/O Module System Configuration List

Part No.	Specification	Description
GFMS-RM01S	Master Modbus RTU, 1 Port	Main Controller
GFDI-RM01N	Digital Input 16 Channel	Digital Input
GFDO-RM01N	Digital Output 16 Channel / 0.5A	Digital Output
GFPS-0202	Power 24V / 48W	Power Supply
GFPS-0303	Power 5V / 20W	Power Supply
0170-0101	8 pin RJ45 female connector/RS-485 Interface	Interface Module

## **Product Description**

- 1. The interface module is used externally to convert FATEK PLC RS485's communication port (Modbus RTU) to a RJ45 connector
- 2. The main controller is in charge of the management and dynamic configuration of I/O parameters and so on.
- 3. The power module and interface module are standard for remote I/Os and users can choose the model or brand they prefer.

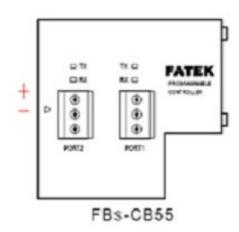
## **FATEK PLC Connection Setup**

This chapter explains how to use the WinProladder program to connect FATEK PLC with For detailed information, please refer to the Winproladder Manual

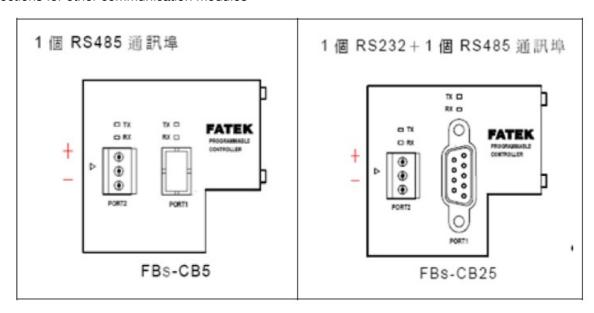
#### **FATEK PLC Hardware Connection**

1. The connection port is on the top of the machine. Take FBs-10MAR2-AC for example. It uses Port2(RS485 pin)





Connections for other communication modules

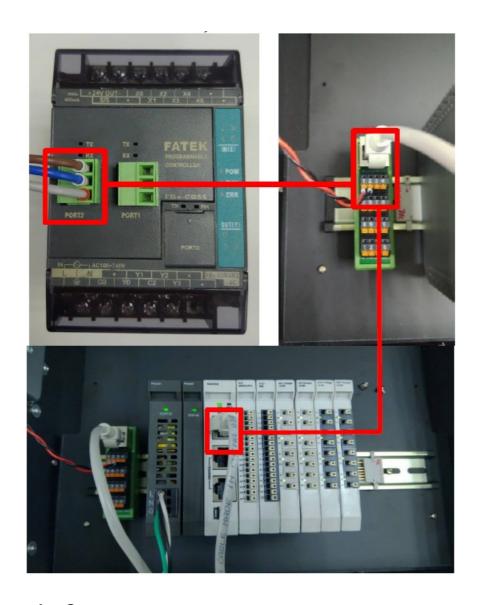


All FATEK's RS485 communication modules have the following pins on the terminal blocks (from top to bottom):

First pin: "+"
Second pin: "-"

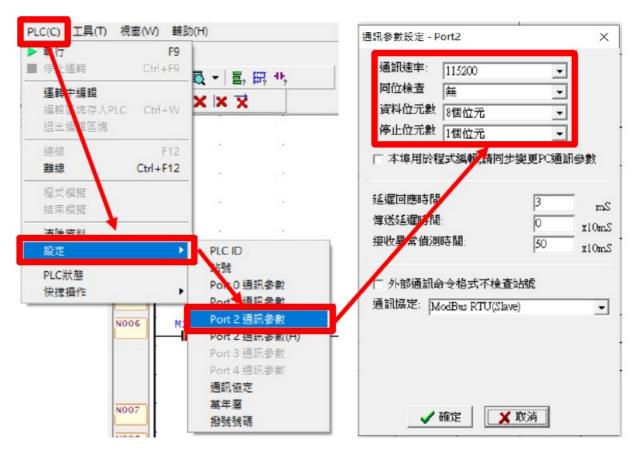
Third pin: "Ground"

2. Connect Port2 (RS485 A/B) on the top of the machine to the interface module (1/2) to convert it into a RJ45 connector, which will be connected to the main controller

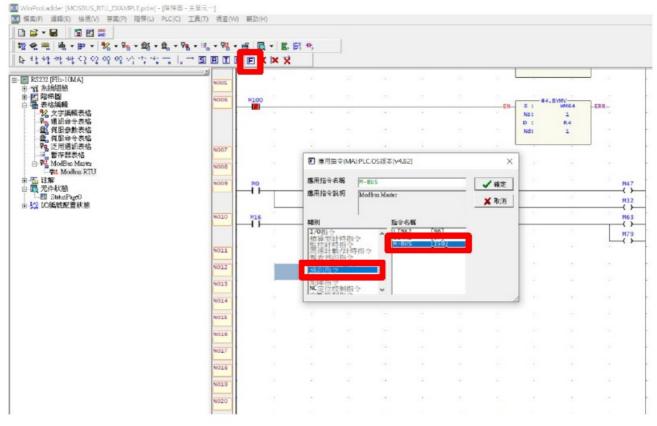


# **FATEK PLC Connection Setup**

1. Launch WinProladder and set up the communication ports



- This demonstration utilizes communication module CB55 RS485 with Port2 in its address
- The communication parameter setting must be consistent with to enable communication
- 2. Editing the program- Click on "Set up program block diagram", then from the drop-down menu, select "Communication Commands" and then select "M-BUS"



3. Function Commands



- Pt: The address of the port for selecting a Modbus communication module
- SR: Starting register for the communication program
- WR: The starting register running the commands will take up totally 8 registers In this example, we select "2", "R5000" and "R3000

#### 4. Internal Related Relays



Internal Related Relays			
Communication Port	Port Ready Indicating Relay		
Port1	M1960		
Port2	M1962		
Port3	M1936		
Port4	M1938		

## 5. Establish a Communication Form





The form's starting address must be the same with that of the register from the SR command

6. Setting the Communication Commands



- 1. ID-GRID 11 station number
- 2. From the drop-down menu, select "Read" or "Write" to PLC
- 3. With double-word data, select "2" for data length
- 4. Read \*\*ID-GRID\*\*\* 's value to PLC R1's address

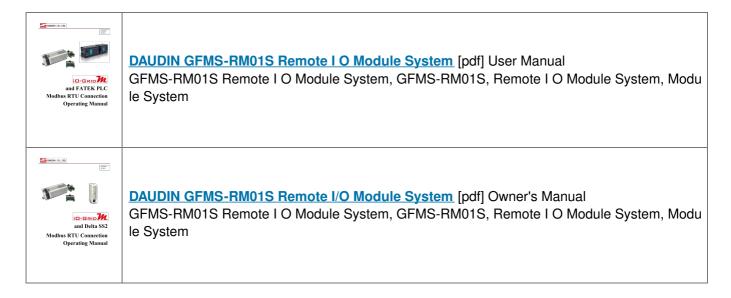
  \*\*ID-GRID\*\*\* 's register address

#### Note:

\* iD-GRID\*\* 's first GFDI-RM01N has the register address at 1000(HEX) converted to 4096(DEC)+1, and the starting address at 404097

\* in-GRID // 's first GFDO-RM01N has the register address at 2000(HEX) converted to 8192(DEC)+1, and the starting address at 408193

#### **Documents / Resources**



Manuals+,