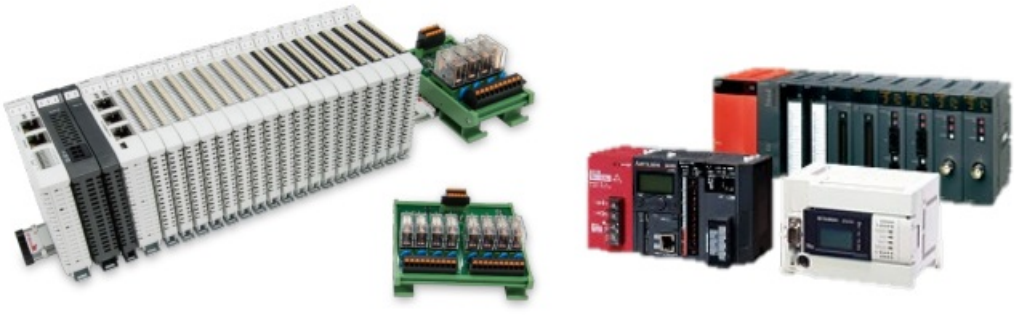
DAUDIN iO-GRID m and FX5U Modbus RTU User Manual

Contents

DAUDIN iO-GRID m and FX5U Modbus RTU



Product Information

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 Interface Module
0170-0101	8 pin RJ45 female connector/RS-485 Interface	Interface Module

Product Usage Instructions

MLESEC-FX5U Connection Setup

1. Launch GX Works3 software.
2. Select the Parameters menu from the Navigate on the left side.
3. Click on 485 Connector under the Module Parameters menu.

FX5U Hardware Connection

1. The connector is on the left side of the FX5U and uses RS485 connections.
2. Connect the COM (RS485 A, B) on the left of the FX5U to the interface module (1/2) to convert it to a RJ45 connector before connecting it to the main controller.

FX5U Connection Setup

1. Set up the communication format in Protocol Format.
    - From the drop-down menu, select MODBUS_RTU Communication.
    - From the drop-down menu, select None.
    - From the drop-down menu, select 1bit.
    - From the drop-down menu, select Equipment Baud.
    - The communication format setting must be consistent with the device being connected.
2. **Reading of the communication register:**
    - **Command functions are listed below:**

Station No.	Function code	Register for reading	Data Amount for Reading	Register for storage	Initial address of the command execution
01	03	10 00	00 01		

1. **Writing of the communication register:**
    - **Command functions are listed below:**

Station No.	Function code	Register for writing	Data Amount for Writing	Register for r eading	Initial address of the comman d execution
01	10	20 00	00 02		

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

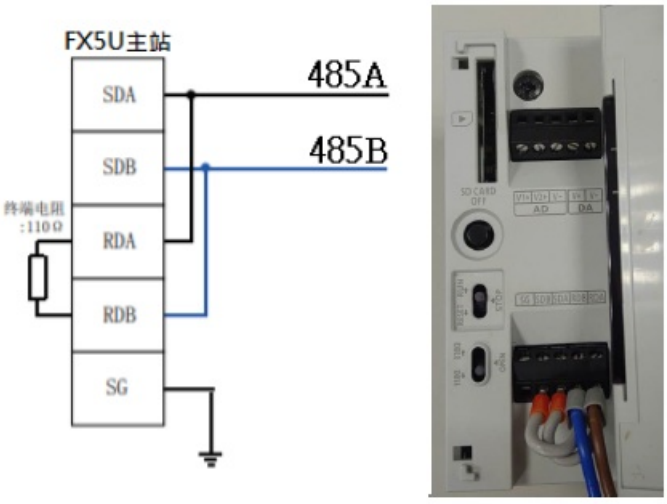
1. The interface module is used externally to convert FX5U's communication module (Modbus RTU) to a RJ45 connector
2. The main controller is in charge of the management and dynamic configuration of I/O parameters and so on.
3. The power module and interface module are standard for remote I/Os and users can choose the model or brand they prefer.

MLESEC-FX5U Connection Setup

This section details how to use the GX Works3 software to connect FX5U. For more details, please refer to the "Commands/Universal FUN/FB" chapter of the MELSEC iQ-F FX5 Programming Manual

FX5U Hardware Connection

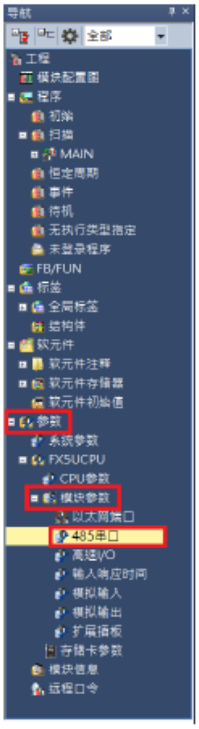
1. The connector is on the left side of the FX5U and uses RS485 connections



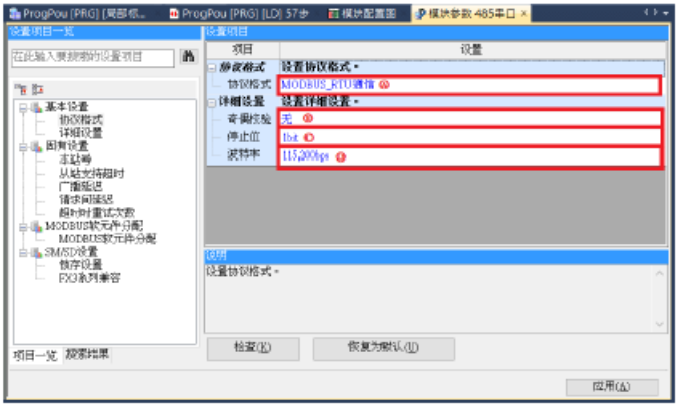
2. Connect the COM (RS485 A, B) on the left of the FX5U to the interface module (1/2) to convert it to a RJ45 connector before connecting it to the main controller

FX5U Connection Setup

1. Launch GX Works3 and select the “Parameters” menu from the “Navigate” on the left side, then click on “485 Connector” under the “Module Parameters” menu



2. Set up the communication format in “Protocol Format”



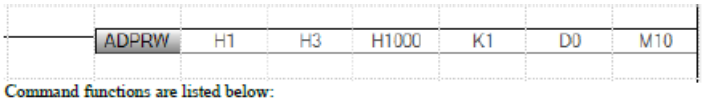
Ⓐ From the drop-down menu, select “MODBUS_RTU Communication”

Ⓑ From the drop-down menu, select “None”

Ⓒ From the drop-down menu, select “1bit”

Ⓓ From the drop-down menu, select “Equipment Baud”

3. Reading of the communication register

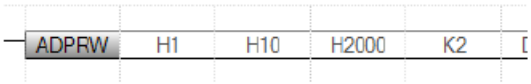


Command functions are listed below:

Station No.	Function code	Register for reading	Data Amount for Reading	Register for storage	Initial address of the command execution

This line of code is equivalent to Modbus Function Code			
Station No.	Function code	Register for reading	Data Amount for Reading
01	03	10 00	00 01

4. Writing of the communication register



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Command functions are listed below:

Station No.	Function code	Register for writing	Data Amount for Writing	Register for reading	Initial address of the command execution

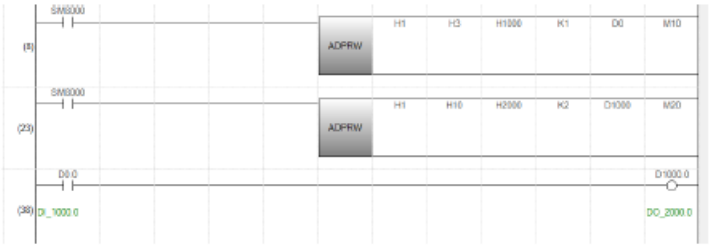
This line of code is equivalent to Modbus Function Code			
Station No.	Function code	Register for writing	Data Amount for Writing
01	10	20 00	00 02

Notes:

- iO-GRID ’s first GFDI-RM01N has the register address at 1000(HEX)
- iO-GRID ’s first GFDO-RM01N has the register address at 2000(HEX).

5. **Programming Example:**

Control with one GFDI-RM01N and one GFDO-RM01N When DI_1000.0 has received a signal and is triggered, DO_2000.0 will output a signal as it is connected



Documents / Resources

	**DAUDIN iO-GRID m and FX5U Modbus RTU** [pdf] User Manual GFMS-RM01S, GFDI-RM01N, GFDO-RM01N, GFPS-0202, GFPS-0303, 0170-0101, iO-GRID m and FX5U Modbus RTU, iO-GRID m, FX5U Modbus RTU, Modbus RTU