DAUDIN CO., LTD.

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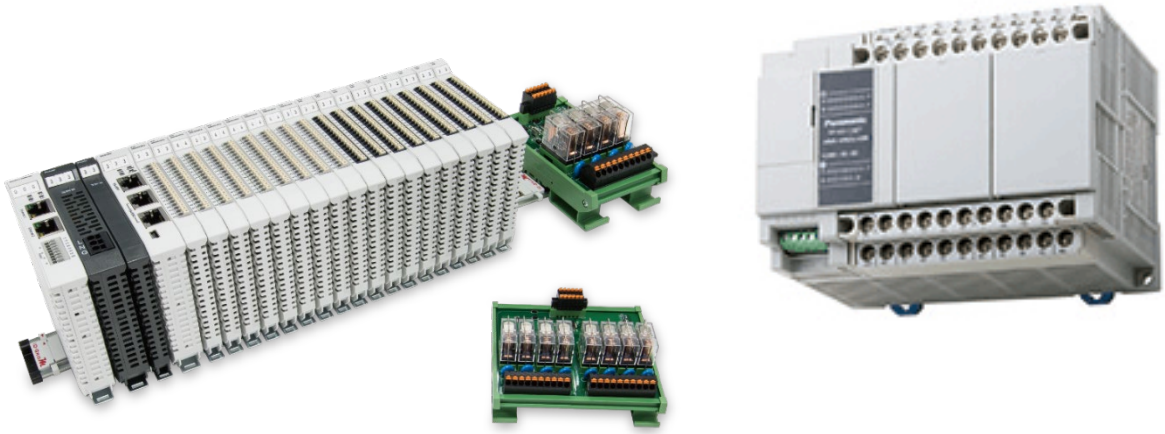


iO-GRID M

and Panasonic-FP-XH

Modbus RTU Connection Operating Manual

Table of Contents

1. 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

1.1 Product Description

I. The interface module is used externally to convert Panasonic AFPX-COM3's communication module (Modbus RTU) to a RJ45 connector.

II. The main controller is in charge of the management and dynamic configuration of I/O parameters and so on.

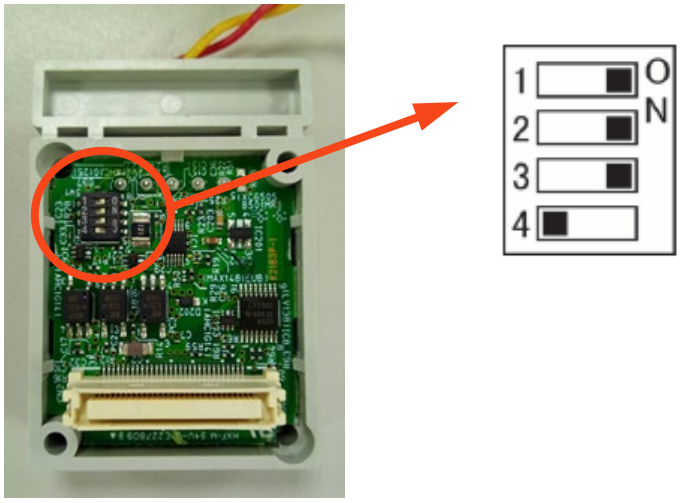
III. The power module and interface module are standard for remote I/Os and users can choose the model or brand they prefer.

2. Panasonic - FP - XH Connection Setup

This section details how to use the FPWIN GR7 software to connect Panasonic FP-XH, using the communication module AFPX-COM3, with iO-GRID M. For detailed information, please refer to the *Communication Chapter in the Programmable Controller FP-XH Series User Manual*

2.1 FP- XH Hardware Connection

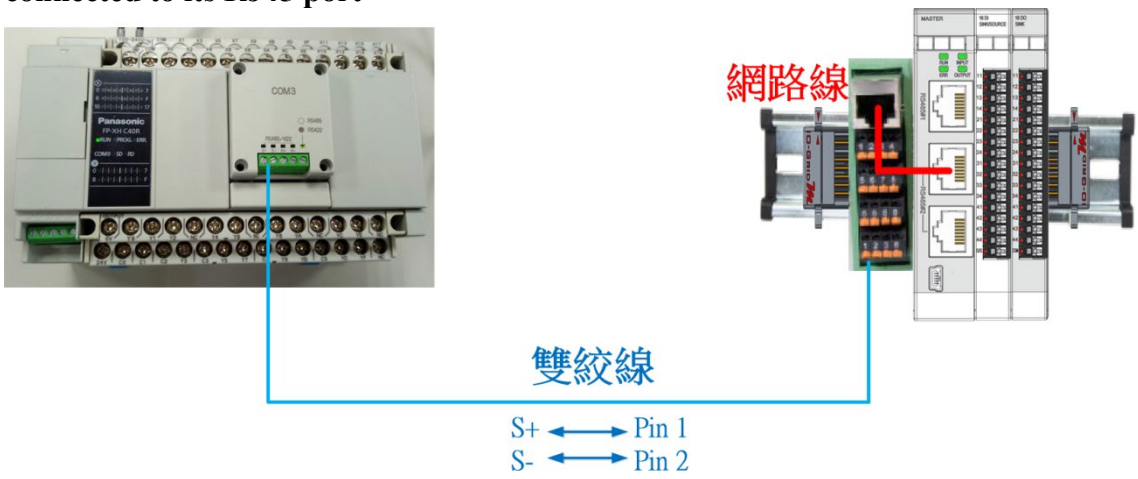
I. Set the switches on the back of the communication module AFPX-COM3 to the RS485 mode.



Switch	Function	Setup
1	Switch between RS-485/ RS-422	In the RS-485 mode when switched to “ON”
2		
3		
4	Terminating resistor	“ON” with a terminator and “OFF” without a terminator

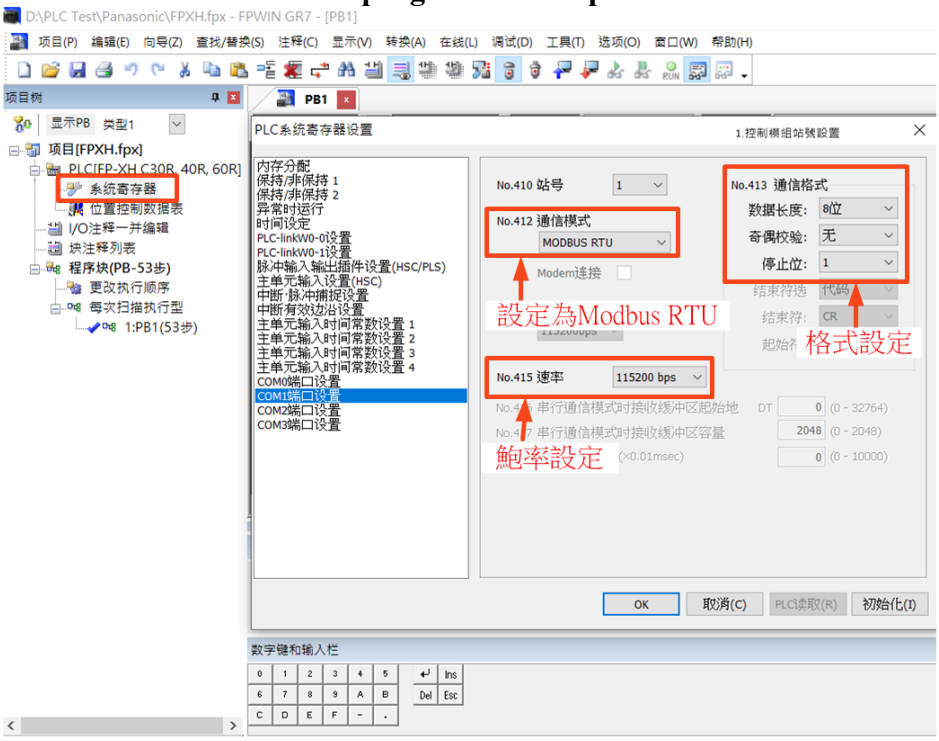
II. After a communication module is set up, connect it to FP-XH via RS485 and the indicator light will light up

III. Connect AFPX-COM3's terminals (S+、S-) to the interface module (Pin1 and Pin2). The interface module is connected to the control module via the Ethernet cable connected to its RJ45 port

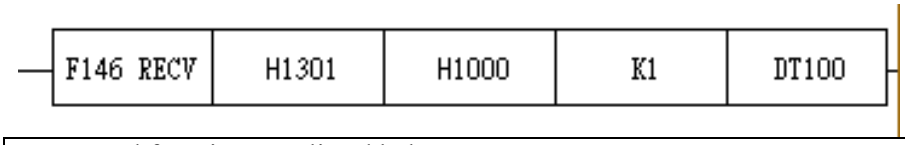


2.2 FP- XH Connection Setup

I. Launch the FPWIN GR7 program to set up the communication format



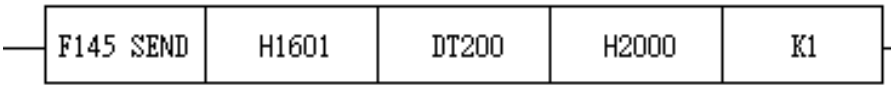
II. Reading of the communication register



Command functions are listed below:			
Communication Port Program Numbers & Modbus Commands & Station Numbers	Read Register	Data Amount for Reading	Initial address of the command execution

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

Writing of the communication register



Command functions are listed below:			
Communication Port Program Numbers & Modbus Commands & Station Numbers	Initial address of the command execution	Write Register	Data Amount for Writing

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

Notes:

※iO-GRID M's first GFDI-RM01N has the register address at 1000(HEX)

※iO-GRID M's first GFDO-RM01N has the register address at 2000(HEX)

III. Programming Example:

Control with one GFDI-RM01N and one GFDO-RM01N

When the first point of DI has received a signal and is triggered, the first point of DO will output a signal as it is connected