

2302EN V1.0.0



iD-GRIDM and AH500 Series Modbus TCP Connection Operating Manual



Table of Contents

1.		Remote I/O Module System Configuration List	3
	1.1	Product Description	3
2.		Gateway Parameter Settings	4
	2.1	i-Designer Program Setup	5
3.		AH500 Connection Setup	9
	3.1	AH500 Hardware Connection	9
	3.2	AH500 Connection Setup	10

DAUDIN CO., LTD.

1. Remote I/O Module System Configuration List

Part No.	Specification	Description
GFGW-RM01N	Modbus TCP-to-Modbus RTU/ASCII, 4 Ports	Gateway
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 gateway is used externally to connect with AH500's communication port (Modbus TCP)
- 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.

DAUDIN CO., LTD.

2. Gateway Parameter Settings

This section details how to connect a gateway to AH500. For detailed information regarding $_{1\square-GRID}M$, please refer to the $_{\underline{1}\square-GRID}M$ -Series Product Manual



2.1 i-Designer Program Setup

I. Make sure that the module is powered and connected to the gateway module using an Ethernet cable



II. Click to launch the software





III. Select "M Series Module Configuration"

					- 0	×
M Series Module Configuration						
	M Series Module Configuration					

IV. Click on the "Setting Module" icon

🚟 i-Designer v1.0.30.b				×
C Series Module Configuration	M Series Module Configuration			
Setting Module Config				



Module List ID Module Option System Log DateTime Description Search System Stop Connect Disconnect Save Setting			Sett	ing Module				
Module ID Module Option System Log DateTime Description Search System Stop Connect Disconnect Save Setting	Module List	ModeType	Gateway Mode			IP Address	192.168.1.20	
System Log DateTime Description Search System Running System Stop Connect Save Setting	Module	Module Op	tion					
System Log DateTime Description Search System Running Search System Running System Stop Connect Disconnect Save Setting								
DateTime Description Search System Running System Stop Connect Disconnect Save Setting		System Log						
Search System Running System Stop Connect Disconnect Save Setting			DateTime	Description				
Search System Kunning System Stop Connect Disconnect Save Setting					Connect			
	L				Connect			

V. Enter the "Setting Module" page for M-series

VI. Select the mode type based on the connected module

		Settin	g Module			<u>^</u>
Module List	ModeType G	ateway Mode 🔷 י	•		IP Address	192.168.1.20
Module	wodule Opti	on				
	System Log					
	D	ateTime	Description			
				Connect		



VII. Click on "Connect"

			Setting	g Module				
	Module List	Setting Module			IP Address	192.168.1.20		
	Module	Module Optic	on					
Sc M Cc								
		System Log						
		Da	teTime	Description				
				System Stop	Connect	Disconnect		
				- Jacumarob	connect			

VIII.Gateway Module IP Settings

	Setting Module X								
Module List					IP A	ddress	192.168.1.20		
Module ID	Module Option								
→ GFGW-RM01N	Internet Setting	s Operating Settings	Port Settings	ID Mapping	Module Information				
	IP Address	192.168.1.20							
	Netmask	255.255.255.0							
	Default Gatewa	y 192.168.1.1							
	System Log								
	Date	eTime De	escription						
	→ ② 2023	2-09-14 16:28:06 Re	ad Gateway Moo	dule Successfull	y!				
					Disconnect	S	ave Setting		

Note: The IP address must be in the same domain as the controller equipment



3. AH500 Connection Setup

This chapter explains how to use the ISPSoft program to connect AH500 with a gateway. For detailed information, please refer to the *ISPSoft User Manual*

3.1 AH500 Hardware Connection

I. The Ethernet port is on the top of AH500 and can be connected to the gateway





II. The gateway's first 485 port is connected to the interface module 0170-0101 before being connected to the control module via an Ethernet cable







3.2 AH500 Connection Setup

I. Launch ISPSoft, create a new file and double-click "HWCONFIG" on the project management section on the left to enter the configuration page





II. Right click on the PLC icon and select "Summary" under "Hardware Configuration"



III. For this demonstration, click on "Ethernet - Basic Settings"

編輯區						□ ×
						硬體配置
概括 資料交換						
- AHCPU510-EN	乙太網路 - 基本設定					
+ 系統資訊	名稱	設定値	單位	預設值	最小值	最大值
通訊埠	IP 定址模式	靜態	*	靜態	-	-
乙太網路 - 基本設定	IP 位址	192.168.1.1		192.168.1.1	1.1.1.1	223.255.255.255
+ 乙太網路 - 進階設定	網路遮罩	255.255.255.0		255.255.255.0	0.0.0.0	255.255.255.255
	閘道位址	192.168.1.1		192.168.1.1	1.1.1.1	223.255.255.255
	連線保持時間	60	秒	60	1	65535
預設 匯入 匯出						



IV. Click on "Data Exchange" on the left to switch to the Data Exchange page and select the desired COM PORT (Ethernet in this case). Make sure to select "啟動方式", otherwise the data communication will not be initiated. Select "Add" or modify existing fields to set up the communication

编輯區	L								□ ×
									硬體配置
概括 資料交換									
- CPU	啟動方式	永遠執行	- ■ 新増	🗹 編輯		移 🌔 複製 🗗× 删除	亩	全部刪除	
乙太網路	啟動	IP 位址	本地位址		方向	遗端位址		數	量
	1	192.168.1.20	D0		+	1000		1	L
						2000			

V. "Data Exchange Settings" image and details:

▲資料交換設定				×
本地設定	;	遠端設定		
	ü	袁端站號	1	÷
最短更新週期 (毫秒) 10		P 位址	192.168.1.2	D
連線逾時 (毫秒) 50	\$ ☑ 套用至全部	袁端裝置種類	Standard Modbus D	evice 🔻
☑ 支援同步讀寫 (功能碼:0x17)				
本地起始位址 D0 - D32767		遠端起始位址 (Hex) 0	- FFFF	數量 (Word)
D Register • 10	0	gister Hex 🔹	1000 0	1 🗘
本地起始位址 D0 - D32767		遠端起始位址 (Hex) 0	- FFFF	數量 (Word)
D Register • 20	0 → MODBUS Re	gister Hex 🔹	2000 0	1 +
			確定	取消

1. To use that communication, make sure to check "Initiate"

2. When there are too many addresses to read and write, increase the "Minimum Refresh Cycle".

3. \Box -GRID \mathcal{M} control module can accept 0x17 function code while reducing the communication time by one writing and one reading

4. The IP address should be the IP address of the gateway you want to connect

5. For "Remote Device Type", select "Standard Modbus Device"

*iD-GRID // 's first GFDI-RM01N has the register address at 1000(HEX)

* ID-GRID // 's first GFDO-RM01N has the register address at 2000(HE



VI. Once the setup is complete, click on "Download" for the setting to be incorporated in PLC

●下載			x
接置 0 (AHCPU510-EN	 ● 通訊設定 > 通訊設定 > 通動名稱: Driver1 > G ○ 任務 - ☑ 硬體配置 ☑ HWCONFIG 概括 ☑ HWCONFIG 資料交換 ○ HWCONFIG 資料交換 	HWCONFIG 概括 HWCONFIG 資料交換 HWCONFIG 項目 マ 項目 マ 硬體設定 マ COM マ 乙太網路 - 基本設定 マ 乙太網路 - 進階設定	· · · · · · · · · · · · · · · · · · ·
	諸誤數量: 0		▼ 間閉

VII. Once the register for data storage is set up following the instructions above in the ISPSoft program, it is ready to use

■ RANGONER ■ NINCONER	Prog0				台連由式庫,預覧 0
	類別 符	區域和 「統名稱 位址 1	守統 資料型態 初始值(下載時生效)	行行的注意	田道道文林 ② — ঊ 新雄道式源
	D100	D200			
					台達山大海 使用者 4 預開
<					1938
编译 訊息					