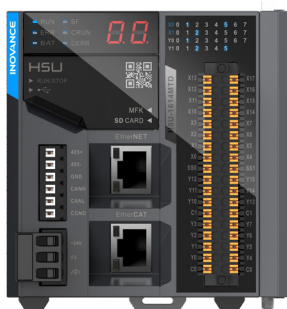


H5U Series

Programmable Logic Controller User Guide



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Preface

Introduction

Thank you for purchasing the H5U series programmable logic controllers (PLCs) developed and manufactured independently by Inovance. The H5U series new-generation small-sized PLCs support EtherCAT bus control and can realize the encapsulation and reuse of the processes through the FB/FC function. Also, the H5U series can realize multi-level network communication through RS485, CAN, Ethernet and EtherCAT interfaces.

This guide describes the specifications, features, and usage of the H5U series PLCs. Before using this product, read this guide carefully to fully understand features of the product and ensure safe use. Visit our website (www.inovance.com) for the latest version of the guide.

Audience

This guide is intended for users who use or understand Inovance PLC products, including: electrical engineers, software engineers, and system engineers.

Contact our customer service center if you have any question during the use.

Related Documents

Document Name	Description
H5U Series Programmable Logic Controller Instructions Guide	Introduces the basic and complex instructions, as well as examples of instructions used in product programming application
H5U Series Programmable Logic Controller Programming and Application Guide	Introduces the basic knowledge of PLC programming, quick start guidance, communication, motion control, and the use of high-speed counters.

Cautions for New User

For users who use this product for the first time, read this guide carefully.

Revision History

Date	Version	Description
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October 2022	A02	<ul style="list-style-type: none"> ◆ Added the description that H5U-1614MTD-A8S does not support electronic gear ◆ Added the specification of surge voltage ◆ Added terminal wiring diagram, modified the specifications, and corrected some minor errors ◆ Updated the barcode ◆ Added new model ◆ Added links to the H5U documents ◆ Corrected minor errors.
June 2020	A01	Added new model, and improved the description of error code information displayed by LED
October 2019	A00	First release

General Safety Instructions

■ Safety Disclaimers

1. Before installing, using, and maintaining this product, read the safety information and precautions thoroughly, and comply with them during operations.
2. To ensure the safety of humans and products, follow the signs on the product and all the safety instructions in this user guide.
3. The "CAUTION," "WARNING," and "DANGER" signs are only supplements to the safety instructions.
4. Use this equipment according to the designated environment requirements. Damage caused by improper usage is not covered by warranty.
5. Inovance shall take no responsibility for any personal injuries or property damage caused by improper usage.

■ Safety Levels and Definitions



DANGER

Indicates that failure to comply with the notice will result in death or severe personal injuries.



WARNING

Indicates that failure to comply with the notice may result in severe personal injuries or even death.



CAUTION

Indicates that failure to comply with the notice may result in minor or moderate personal injuries or equipment damage.

Please keep this guide well so that it can be read when necessary and forward this guide to the end user.

During Control System Design



WARNING

- ◆ Interlock circuits and other circuits such as emergency stop, conventional protection, forward and reverse rotation must be set outside the equipment; devices for preventing equipment damage (up, down and reciprocating movement limit) must be set outside the equipment;
- ◆ Install the fault protection circuit outside of this product to prevent unsafe accidental mechanical movement. For example, when an error occurs in the input/output control area that this product cannot detect, accidental movement may occur in the area.
- ◆ Design a user program to ensure the safety of the user and the system when the product fails in display, control, communication, power supply, etc.
- ◆ Make sure that the communication failure between the product and the main controller will not cause equipment malfunctions, personal injuries, or equipment damages.
- ◆ During use, keep the charged objects away from the metal shell of the product.



CAUTION

- ◆ Do not design switches on the touch panel that may cause personal injuries to the operator or equipment damages. Design the switches for important operations separately; otherwise, an accident may be caused by incorrect output or malfunction.
- ◆ Do not design switches for controlling the safe operation of the product on the touch panel, such as the emergency stop switch. Design a physical switch separately to perform such operations; otherwise, serious personal injuries or equipment damages may be caused.
- ◆ Do not use this product as a warning device that may cause serious personal injuries, equipment damages, or system shutdown. Use independent hardware and/or mechanical interlocks to design important alarm indications and the control/triggering equipment.

During Installation



WARNING

- ◆ Install this product correctly, and use this product indoors. Ensure that the usage environment meets the requirements described in the Basic Parameters section.
- ◆ Do not install the product in the environment with strong magnetic field, direct sunlight, high temperature, flammable gas, steam, or dust; otherwise, explosions may be caused.
- ◆ Do not use this product in the environment where the temperature may change drastically or the humidity is high; otherwise, condensation inside the device may be caused to damage the device.
- ◆ Make sure that all cable connectors are securely connected to the product. If the connection is loose, wrong input or output signals may be generated.



CAUTION

- ◆ The ambient temperature must be within the storage temperature range recommended in this guide. Otherwise, the controller may fail.

During Wiring

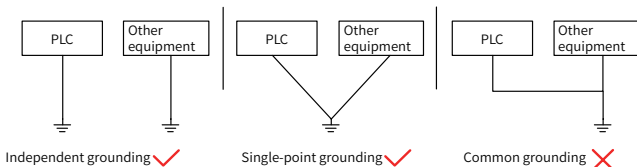


DANGER

- ◆ Before installation, wiring, and other operations, cut off all power supplies. Never wire cables and plug in and out of the connectors in a live state. Otherwise, electric shock or circuit damage may be caused.
- ◆ Connect the DC power supply to the dedicated terminals as described in this guide.
- ◆ During screw hole processing and wiring, ensure that no metal chip or cable end drops into the controller to avoid malfunctions, electronic component damages, or fires.
- ◆ After the wiring is completed, check carefully to ensure that the working voltage and the position of the wiring terminal are correct. Otherwise, a fire or an accident may be caused.

☞ Grounding

Independent or single-point grounding is recommended, whereas common grounding is prohibited.



CAUTION

- ◆ To avoid electric shock, cut off the power supply before connecting the product to the power supply.
- ◆ The input power of the product is 24 VDC. If the power input is not within $24\text{ VDC} \pm 20\%$, the product may be damaged. Therefore, check regularly that the DC power provided by the switching-mode power supply unit is stable.

During Operation and Maintenance



CAUTION

- ◆ During operation, use your finger, rather than any other tool, to tap the screen. The user shall be liable for any damage caused by excessive external force;
- ◆ Retired lithium batteries, capacitors and any other matters that may contain ingredients that are hazardous to health and the environment must be disposed of as industrial wastes.

Safety Recommendations

- On-site manual devices or other backup means must be equipped in the position where the operator directly touches the mechanical parts, such as loading and unloading mechanical tools, or the position where the machine runs automatically. The manual devices and backup means, which can start or interrupt automatic operations of the system, must be independent of the programmable controller.
- If you need to modify the program while the system is running, use the lock function or other protective measures. Ensure that only authorized personnel can make the necessary modifications.

Disposal



CAUTION

- Treat the scrapped product as industrial waste. Dispose of the battery according to local laws and regulations.

1 Product Information

1.1 Model and Nameplate

H5U-1614MTD-A8 S

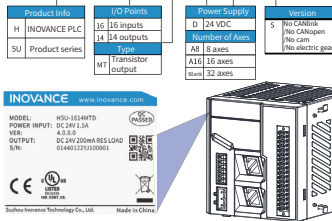


Figure 1 Model and nameplate

Model	Category	Description	Code
H5U-1614MTD	PLC	H5U series PLC with 16 inputs and 14 outputs (32-axis)	01440087
H5U-1614MTD-A16	PLC	H5U series PLC with 16 inputs and 14 outputs (16-axis)	01440235
H5U-1614MTD-A8	PLC	H5U series PLC with 16 inputs and 14 outputs (8-axis)	01440236

Model	Category	Description	Code
H5U-1614MTD-A8S	PLC	H5U series 16-input 14-output programmable logic controller (8 axes, without CANopen/CANlink, electronic cam and electronic gear)	01440315

1.2 External Ports

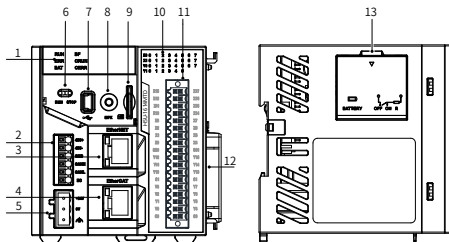




Figure 2 Diagram of PLC interfaces

No.	Port Type	Port Identifier	Definition	Description
1	Running state indicator	RUN	System running state	ON when the system is running, OFF when the system is stopped.
		ERR	PLC system error	--
		BAT+	Battery error	--
		BF	EtherCAT bus error	--
		CRUN	CAN running state	--
		CERR	CAN error	--
2	RS485/CAN port	485+	RS485 communication signal+	MODBUS 485 protocol and free communication protocols.
		485-	RS485 communication signal-	
		GND	RS485 communication ground	
		CANH	CAN communication signal+	CANopen/CANlink protocol (not supported by H5U-1614MTD-A8S).
		CANL	CAN communication signal-	
		CGND	CAN communication ground	
3	Ethernet port	EtherNET	RJ45 port for Ethernet communication	ModBus TCP/IP protocol.

No.	Port Type	Port Identifier	Definition	Description
4	EtherCAT port	EtherCAT	For EtherCAT communication	--
5	Power terminal	24 V	24 VDC power input	24 VDC voltage input.
		0 V	24 VDC power input	
			PE	
6	DIP switch	RUN/STOP	For starting or stopping the master module	--
7	USB Port		For connecting a USB device	--
8	Multi-functional key	MFK	Key for resetting the IP address of the PLC	Valid when PLC is in STOP state.
9	SD card slot	SD	SD card holder for receiving SD card	User program download.
10	LED display	--	00: Normal running 88: System fault	Displays PLC running and error status and cooperates with the MFK key to achieve special functions.
11	I/O terminals	--	16 inputs and 14 outputs	See the terminal layout description for details.
12	Expansion interface	--	For connecting an expansion module or device	Supports at most 16 I/O modules, hot-swapping not supported.
13	Battery/DIP switch holder	Battery	Spare battery installation Termination resistor installation	The spare battery and termination resistor can be installed in the holder.

1.3 General Specifications

Item	Specifications
Program data capacity	200,000-step user program 2 MB customized variables of which 256 Kbytes can be retained at power failure About 150,000 soft components (those numbered after 1000 support retention at power failure)
Ethernet	Supports ModbusTCP, Socket, program download and firmware upgrade, and EtherCAT

Item	Specifications
Number of axes	H5U-1614MTD: 32 axes, including EtherCAT (max. 32 axes) and local pulse (max. 4 axes) H5U-1614MTD-A16: 16 axes, including EtherCAT (max. 16 axes) and local pulse (max. 4 axes) H5U-1614MTD-A8: 8 axes, including EtherCAT (max. 8 axes) and local pulse (max. 4 axes) H5U-1614MTD-A8S: 8 axes, including EtherCAT (max. 8 axes) and local pulse (max. 4 axes)
Serial communication	1 x RS485
CAN communication	CANlink, CANopen (not supported by H5U-1614MTD-A8S)
Power supply specifications	24 V/1.5 A
High-speed input	Four 200 kHz inputs
High-speed output	Four 200 kHz outputs
Expansion module	16 local expansion modules
Programming language	LD (FB/FC function) and SFC
USB, SD card	User program upload and download, and firmware upgrade (the latter is not supported by USB)
Operating temperature	-10° C to +55° C
IP rating	IP20

1.4 Input Specifications

Input signals can be bipolar voltages. The signal status is OFF when the absolute voltage value is less than 5.0 V; ON when the absolute voltage value is more than 15.0 V; and undefined when the absolute voltage value is in the range from 5.0 V to 15.0 V.

Item	High-speed Input (X0–X3)	Medium-speed Input (X4–X7)	General Input (X10–X17)
Signal input mode	Sink input when the SS0/SS1 terminal is short-circuited to 24 V; Source input when the SS0/SS1 terminal is short-circuited to 0 V.		

Item		High-speed Input (X0–X3)	Medium-speed Input (X4–X7)	General Input (X10–X17)
Electrical parameters	Input voltage	24 VDC		
	Input impedance	2 k Ω	3.3 k Ω	4.3 k Ω
	Input ON	Input current > 7.5 mA	Input current > 4.5 mA	Input current > 3.5 mA
	Input OFF	Input current < 2.5 mA	Input current < 1.5 mA	Input current < 1.5 mA
Filter	Digital filter	Digital filter setting supported for high-speed inputs (X0–X3) and medium-speed inputs (X4–X7)		
	Hardware filtering	Hardware RC filter for general inputs (X10–X17), RC time about 15 ms		
High-speed function		High-speed counting and interrupt at X0–X3, with the frequency 200 kHz		
Surge voltage		35 VDC, 0.5s		
Common terminal		2 common terminals: SS0 for X0–X3 (high-speed inputs) and SS1 for X4–X17 (medium-speed inputs and general inputs)		



NOTE

- ◆ The voltage must not exceed 26.4 V when all inputs are ON.
- ◆ The low-speed input filter time is conceptualized as the RC time, and the range is 2 ms–1000 ms.
- ◆ High-speed input digital filtering time: 2 μ s–1000 μ s.
- ◆ The response time is about 4 μ s when medium-speed inputs are ON and about 35 μ s when medium-speed inputs are OFF.

1.5 Output Specifications

The output ports use dry contact output, which is closed in the ON state and open in the OFF state.

Item	High-speed Output (Y0–Y7)	General Output (Y10–Y15)
Signal circuit supply voltage	5 VDC to 24 VDC	
Output type	Transistor NPN output	
Insulation	Optocoupler isolation	
Open-circuit leakage current	<0.1 mA/30 VDC	
Min. load	12 mA for high-speed output greater than 10 kHz	5 mA

Item		High-speed Output (Y0-Y7)	General Output (Y10-Y15)
Max. output current	Resistive load	0.8 A/4 points	0.8 A/4 points; 1.6 A/6 points
	Inductive load	7.2 W/24 VDC	12 W/24 VDC
	Lamp load	0.9 W/24 VDC	1.5 W/24 VDC
ON response time		High-speed output (12 mA load): 1 us	0.5 ms
OFF response time			
high-speed output frequency		Max. 200 kHz per channel	/
Output common terminal		One common terminal for each group; isolation of common terminals between groups	
Fuse		None	

The high-speed output circuit provides short circuit protection, namely, automatic output locking. Outputs can be unlocked in the OFF state. The protection function can withstand 100 energy impacts per second. Therefore, the high-speed output should not be connected to a capacitive load greater than 10 μ F.

2 Mechanical Design Reference

Exterior and Dimensions

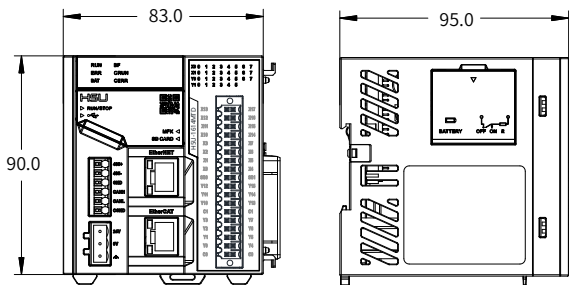


Figure 3 Exterior and dimensions (mm) of the PLC

3 Electrical Design Reference

3.1 Terminal Layout

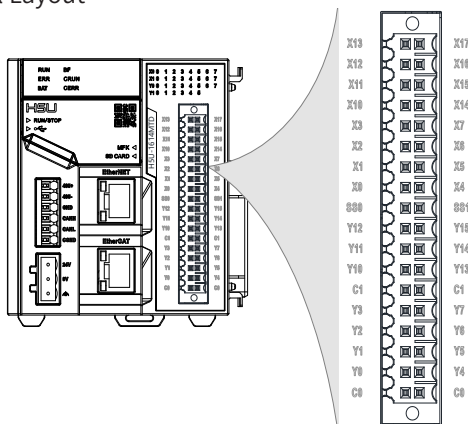


Figure 4 Terminal layout of the PLC

Definition	Terminal	Terminal	Definition
General input	X13	X17	General input
General input	X12	X16	General input
General input	X11	X15	General input
General input	X10	X14	General input
High-speed input	X3	X7	Medium-speed input
High-speed input	X2	X6	Medium-speed input
High-speed input	X1	X5	Medium-speed input
High-speed input	X0	X4	Medium-speed input
High-speed input common terminal	SS0	SS1	General /Medium-speed input common terminal
General output	Y12	Y15	General output
General output	Y11	Y14	General output
General output	Y10	Y13	General output
General output common terminal	C1	C1	General output common terminal
High-speed Output	Y3	Y7	High-speed Output
High-speed Output	Y2	Y6	High-speed Output
High-speed Output	Y1	Y5	High-speed Output
High-speed Output	Y0	Y4	High-speed Output

High-speed output common terminal	C0	C0	High-speed output common terminal
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NOTE

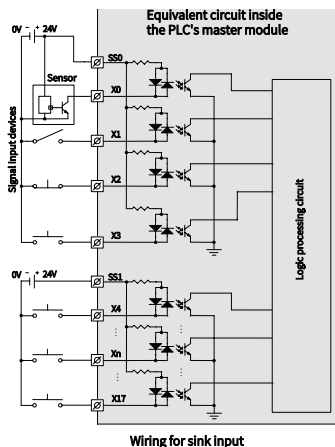
- ◆ The naming conventions for screenprint and labels of controller terminals differ. Their mapping may be defined, for example, label CH0-X0 = screenprint X0, label CH1-Y10 = screenprint Y10, and label COM0 = screenprint C0, with CH0 for channel 0 and CH1 for channel 1.
- ◆ Terminals of CH0 may distinguish between COM0 and SS0, and those of CH1 between COM1 and SS1. For example, CH0-Y0 corresponds to COM0, and CH0-X0 corresponds to SS0.
- ◆ SS0 is the common terminal for X0–X3 (high-speed inputs) of channel 0, and SS1 is the common terminal for X4–X17 (mediumspeed inputs and general inputs) of channel 1.
- ◆ C0 is the common terminal for the Y0–Y7 output terminals of channel 0, and C1 is the common terminal for the Y10–Y15 output terminals of channel 1.

■ Wiring Precautions

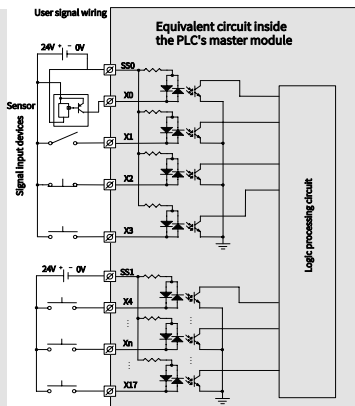
- 1) The maximum length of the expansion cable for a high-speed I/O port must not exceed 3.0 m.
- 2) In the routing process, avoid bundling expansion cables with the power cable (of high voltage and current) and other cables that transmit strong interfering signals. Route expansion cables separately and avoid parallel routing.

3.2 Equivalent Circuits with General and High-speed Inputs

■ Wiring for Sinking and Sourcing Inputs

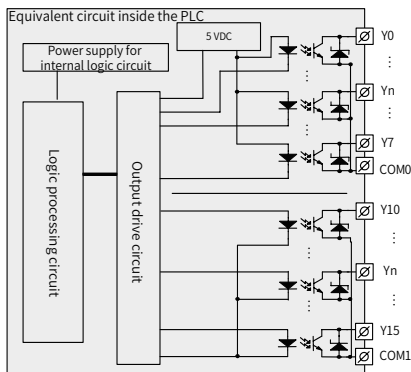


Wiring for sink input

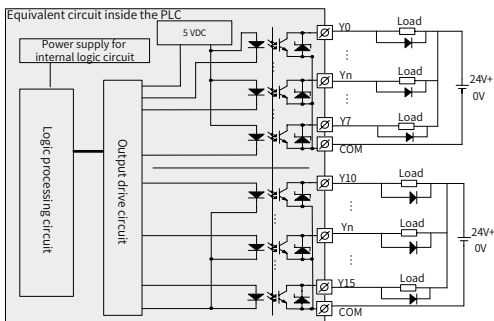


Wiring for source input

3.3 Equivalent Circuits with General and High-speed Output Transistors



■ Wiring for Output Circuit



NOTE

- ◆ When connected to an inductive load, external freewheeling diodes are required. Diodes can be 1N4001 or the like.

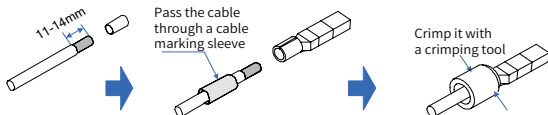
4 Communication Connection

4.1 Cable Selection and Preparation

	Supporting Material	Cable Diameter	
		MM ²	AWG
Power cable	Tubular lug	0.5–1.5	24–16
Signal cable	Tubular lug	0.5–1.5	24–16
Grounding Cable	Tubular lug	≥ 2	14–1.5

Cable preparing procedures:

- 1) Remove the insulation of the cable so that a length of 11–14 mm of the conductor is exposed, and put the cable through a cable marking sleeve.
- 2) Insert the exposed end into the hole of the cable lug, and then crimp it with recommended crimping tool.
- 3) Insert the cable lug into the stud terminal block and fasten it with a screwdriver, with a tightening torque not more than 0.45 N · m.



When the power cable, grounding cable, CAN cable, and RS485 cable use tube cables, a length of 6–10 mm of the conductor must be exposed. For other signal cables, the length must be 11–14 mm.

4.2 PLC Cable Connection

1) Communication connection

The PLC provides the CAN and RS485 ports.

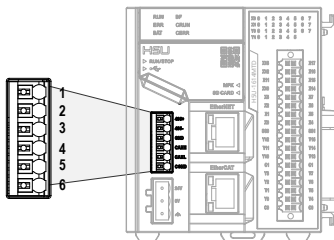


Figure 5 Communication ports of the PLC

The port pins are defined as follows.

Pin	Signal Definition	Description
1	485+	RS485 differential pair positive signal of COM0
2	485-	RS485 differential pair negative signal of COM0
3	GND	Power ground of COM0
4	CANH	CAN RX
5	CANL	CAN TX
6	CGND	CAN ground end

Wiring

Select tube cables according to the instructions in the “Cable Selection and Preparation” section, and insert the tube cables into ports in accordance with the communication configuration.

2) RJ45 cable connection

Hold and insert the connector into the RJ45 port of the communication module until a click sound is heard.

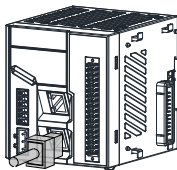


Figure 6 Network cable connection

Removal: press the release tab of the connector and pull out the connector and module horizontally.

3) Requirements for securing communication cable

To prevent tension on the communication cables and ensure stable communication, fix the cables close to the equipment side before setting up EtherCAT and CANopen communication.

4.3 EtherCAT Bus Connection

1) EtherCAT Specifications

Item	Specifications
Communication protocol	EtherCAT protocol
Service supported	CoE (PDO, SDO)
Synchronization mode	Distributed clock (DC) used by the servo, with synchronized I/O
Physical layer	100BASE-TX
Baud rate	100 Mbit/s (100Base-TX)
Duplex mode	Full duplex
Topology	Linear topology
Transmission medium	Network cables (see the Wiring section)
Transmission distance	<100 m between nodes
Number of slave stations	Max. 72
EtherCAT frame length	44–1,498 bytes
Process data	Max. 1,486 bytes per Ethernet frame

2) Wiring

The PLC can use the CN4 port for EtherCAT bus communication. The following network cable is required.

● Requirements on the EtherCAT network cable:

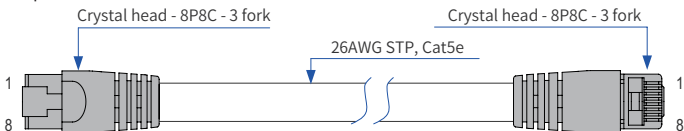


Figure 7 EtherCAT cable preparation

● Signal pins

Pin	Signal	Signal Direction	Signal Description
1	TD+	Output	Data transmission+
2	TD-	Output	Data transmission-
3	RD+	Input	Data reception+
4	--	--	Not used
5	--	--	Not used
6	RD-	Input	Data reception-
7	--	--	Not used
8	--	--	Not used

● Length requirements:

FastEthernet has proved that the cable length between devices should not exceed 100 m in the case of an EtherCAT bus. A longer cable will result in signal attenuation that affects communication.

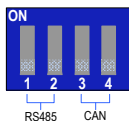
● Technical requirements:

Continuity testing is conducted on a 100% basis and no short circuits, open circuits, and poor contact are found. The following cable specifications are recommended:

Item	Specification
Cable type	Flexible crossover cable, S-FTP, Cat5e
Standard	EIA/TIA568A, EN50173, ISO/IEC11801 EIA/TI Abulletin TSB, EIA/TIA SB40-A&TSB36
Conductor cross section	AWG26
Conductor type	Twisted pair
Pair	4

4.4 Termination Resistor DIP Switch for Communication

The termination resistor DIP switch for communication is located inside the battery compartment. ON indicates that the termination resistors are activated (all toggles are set to OFF by default). As shown in the following figure, toggles 1 and 2 are used for RS485 communication, and 3 and 4 for CAN communication.



4.5 CANopen/CANlink Bus Connection

When building a CAN network, connect each of the three cables leading out from each device to the corresponding cable of the adjacent device. Add a 120 Ω CAN bus termination resistor at both ends of the bus. You can use a DIP switch to choose whether to activate the H5U series built-in resistor. The following figure

shows the CAN bus connection topology.

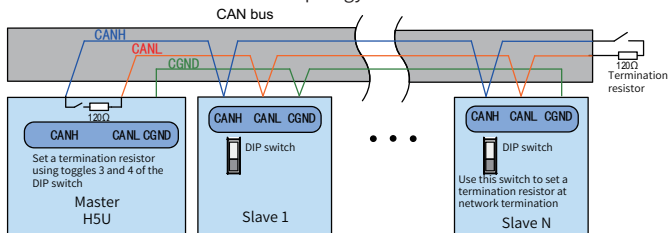


Figure 8 CANopen/CANlink connection topology

The following table lists the relationship between CANopen transmission rate and transmission distance.

Baud Rate (bit/s)	Maximum Bus Length (m)
1 M	20
500 k	90
250 k	150
125 k	300
50 k	1,000

To prevent interference with communication signals, do not bundle the CAN bus with the AC power cable and high-voltage cables.

4.6 RS485 Serial Connection

The following figure shows the RS485 bus connection topology. It is recommended that the RS485 bus be shielded twisted pairs, with the 485+ and 485- terminals connected by the twisted pairs. Connect a 120 Ω termination resistor to each end of the bus to prevent signal reflection. Connect the reference grounds of the RS485 signals of all nodes together. Up to 31 nodes can be connected. The branch distance of every node must be less than 3 m.

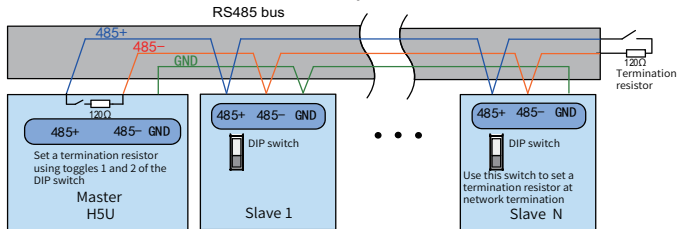


Figure 9 RS485 connection topology

4.7 Ethernet-based Monitor Connection

1) Network diagram

The PLC's Ethernet port can be connected to a hub or switch by an Ethernet cable and then to other network equipment for multi-point connection.

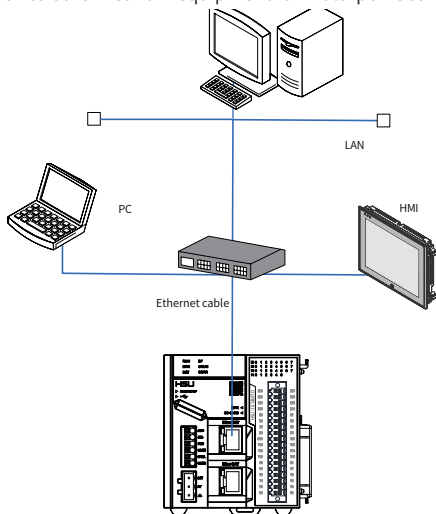


Figure 10 Connecting PLC to other equipment through a switch

The PLC can also be connected point-to-point with computer, HMI, etc. via an Ethernet cable.

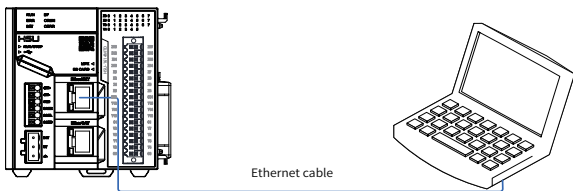


Figure 11 Connecting PLC to PC

2) Wiring

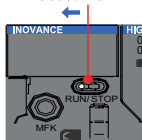
For stable communication, use Cat 5 shielded twisted pairs with a metal housing and injection molding as the Ethernet cable.

5 Operation and Maintenance

5.1 Run and Stop

After programming the PLC, follow the steps below to start and stop it. The PLC is programmed when it is in STOP state. To start PLC:

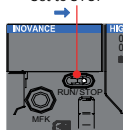
Set to RUN



1. Set the RUN/STOP switch to RUN.



Set to STOP



2. Check that the RUN indicator is solid on in green.

3. To stop the PLC, set the RUN/STOP switch to STOP. Alternatively, you can stop the system in the software tool of the host controller.

5.2 Spare Battery Maintenance

The PLC provides a spare battery for RTC timing.

- 1) The clock stops timing if no battery is installed or the battery is being discharged.
- 2) The maximum battery life is five years, depending on the specific use environment. Replace the battery once the battery level drops to zero.

● Battery Replacement

- 1) Set the PLC's RUN/STOP switch to STOP to cut off the power supply.
- 2) Open the cover of the battery and DIP switch compartment, and take out the battery with a pair of tweezers or the like.
- 3) Push a new battery into the compartment and close the cover.



NOTE

It is recommended that the battery be replaced while the power supply is connected. If the PLC has been powered off, insert a new battery within 30s after the old battery is removed to ensure correct RTC timing.

5.3 PLC Indicators

Indicator Name	Description	Indicator Name	Description
RUN indicator	System running state ON when the system is running, OFF when the system is stopped	BF indicator	EtherCAT bus error
ERR indicator	System fault	CRUN indicator	CAN running state
BAT indicator	Battery error	CERR indicator	CAN error

5.4 MFK Key

The MFK button can be used with the LED to operate multiple function menu options. To do so, press and hold the MFK button, and the LED switches between various menu options at 2s intervals, as shown in the following figure. When the LED displays the target menu option, release the MFK button and then press it again for less than 2s to start the intended menu function.



If that menu function fails, the LED displays an error.

Error Code	Description	Error Code	Description
E1	The PLC is in an unsafe state (for example, running or downloading data) where operations are prohibited.	E2	No microSD card or programmed file is detected.
E3	Multiple programmed files are detected in the microSD card.	E4	The programmed file data is abnormal or the device model is incompatible.
E5	A password verification error has occurred.	-	-

5.5 Default IP Address Restoration

The default IP address of the CPU module is 192.168.1.88. If you have changed this IP address and forgot it when connecting the PLC to a PC, launch the **IP** menu option to restore the IP address to the default value.



After the **IP** menu function starts to run, the LED starts a countdown from 10.



The IP address is restored when the countdown reaches 0 and the new IP address will be applied. To cancel restoration, press the MFK button before the countdown reaches 0.

5.6 User Programming with a microSD Card

Save AutoShop-compiled files to the **PLCProgram** directory of the microSD card, and load the card to the PLC's master module. Launch the **Sd** menu option to download the user programs in the microSD card to the PLC. The LED displays the download progress (00–99). After download is completed, the LED displays “PP”.

00 → ... → 99 → PP

5.7 LED Display of the CPU Module

When a system error occurs, the CPU's LED displays “Er” and the error code alternately. For example, if the error code is 1501, the LED displays the following information:

Er → 15 → 01 → Er → 15 → 01 ...

For more information about the fault code and handling measures, please see H5U Series Programmable Logic Controller Programming and Application Guide.