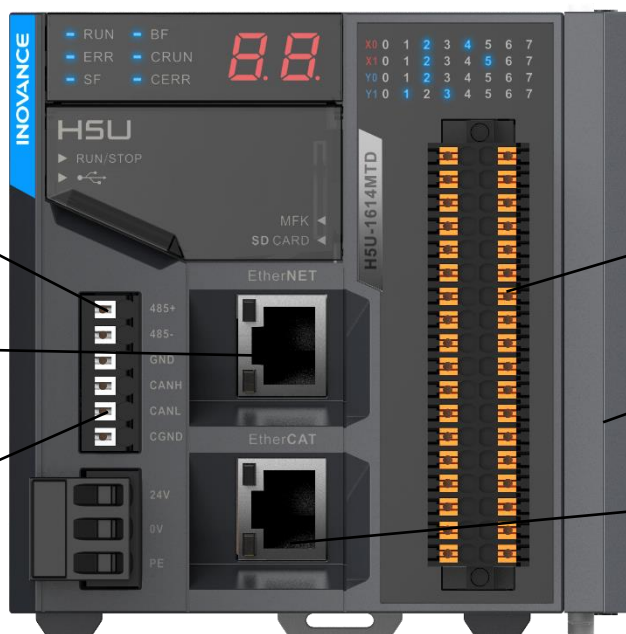


INOVANCE

Introduction of H5U



Hardware Configuration



RS485 port

Ethernet port:
Modbus TCP
Socket instruction

CAN port:
CANlink,
CANopen

Built-in
16 DI (with 4 x 200kHz channels), support **source/sink** input type
14 DO (with 4 x 200kHz channels), only support **NPN** output type

16 extension modules
(Local Bus)

72
EtherCAT slave stations

Models:

❑ **H5U-1614MTD**: supports 32 axes

Model Type Definition

H5U-1614MTD

Inovance small
PLC

5U
Series

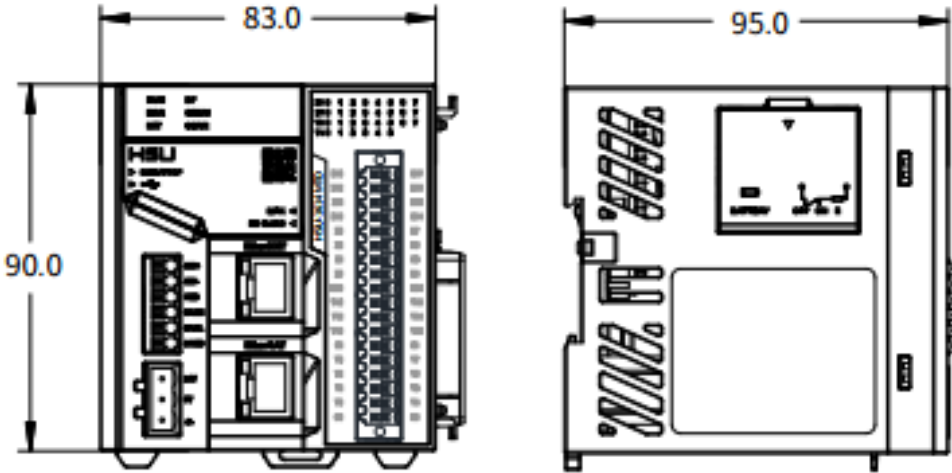
16 inputs
14 outputs

General
transistor
module

Power
supply: 24vdc

Hardware Configuration

H5U	Specifications
Storage	128K program storage, 2MByte custom variable storage
Axes	EtherCAT: 32 axes Local Pulse: 4 axes
Serial port	1 x RS485
CAN port	CANlink, CANopen
Fast input	4 channel 200K
Fast output	4 channel 200K
Extension modules	16 Up to 72 EtherCAT stations (including Servos)
Program Language	LD, SFC, supports FB/FC (LD)
Ethernet	Modbus TCP, Socket, program upload/download Supports EtherCAT
USB、SD card	Program upload/download and firmware upgrade (only SD card)
Structure	Compact and small size: 83 x 90 x 95 (mm)



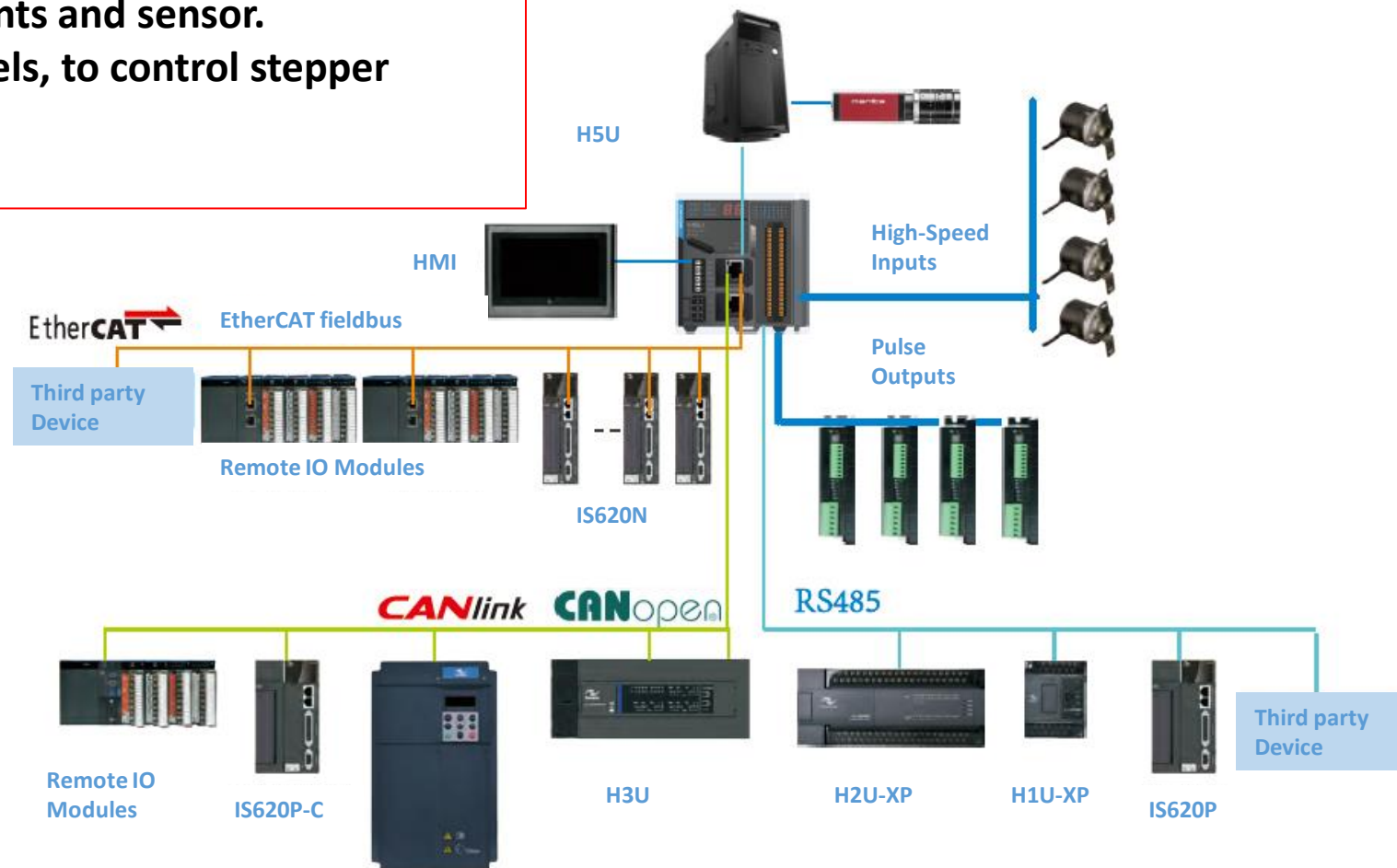
H5U Features

- ❑ EtherCAT: 32 axes PTP control, 72 slave stations, support interpolated motion and electrical CAM function
- ❑ Axis control function conforms to PLCopen specifications.
- ❑ The local pulse and the EtherCAT axis share same motion control commands.



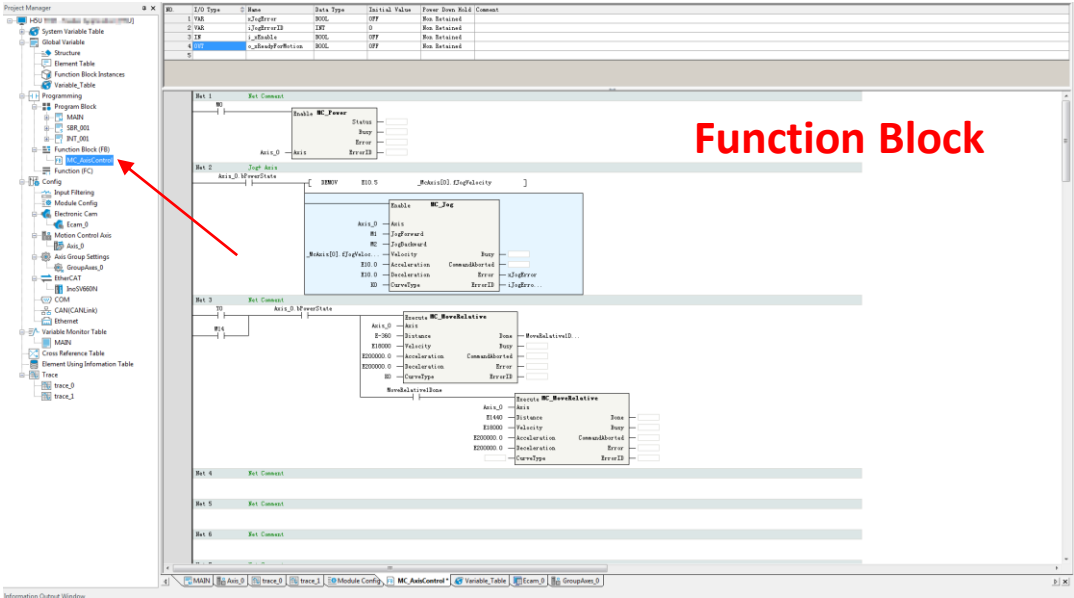
H5U Features

- ☐ Able to control servo drive via EtherCAT.
- ☐ Able to control servo or AC drive via CAN (CANopen, CANlink).
- ☐ RS485 able to connect to instruments and sensor.
- ☐ 4 x high speed pulse output channels, to control stepper motors.
- ☐ Ethernet interface.



H5U Features

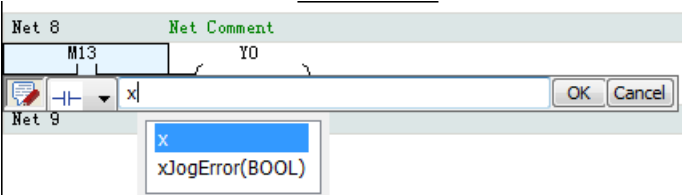
- ❑ Supports FB and FC for encapsulation and code reusability and scalability.
- ❑ Efficient and easy to use ladder diagram programming; graphic block programming can be inserted in the ladder diagram.
- ❑ Custom defined variable programming, programming input assistant.



Variable definition

NO.	Variable Name	Data Type	Initial Value	Persistent or not	Comment	Address
1	xJogError	BOOL	OFF	Non Retained		nBitLen:1
2	iJogErrorID	INT	0	Non Retained		nBitLen:16
3	MoveRelativeDone	BOOL	OFF	Non Retained		nBitLen:1
4						

Input assistant



H5U Features

- ☐ CAM tables
- ☐ Axes Group

Basic Settings

Parameter Settings

Online Monitoring

Basic Settings

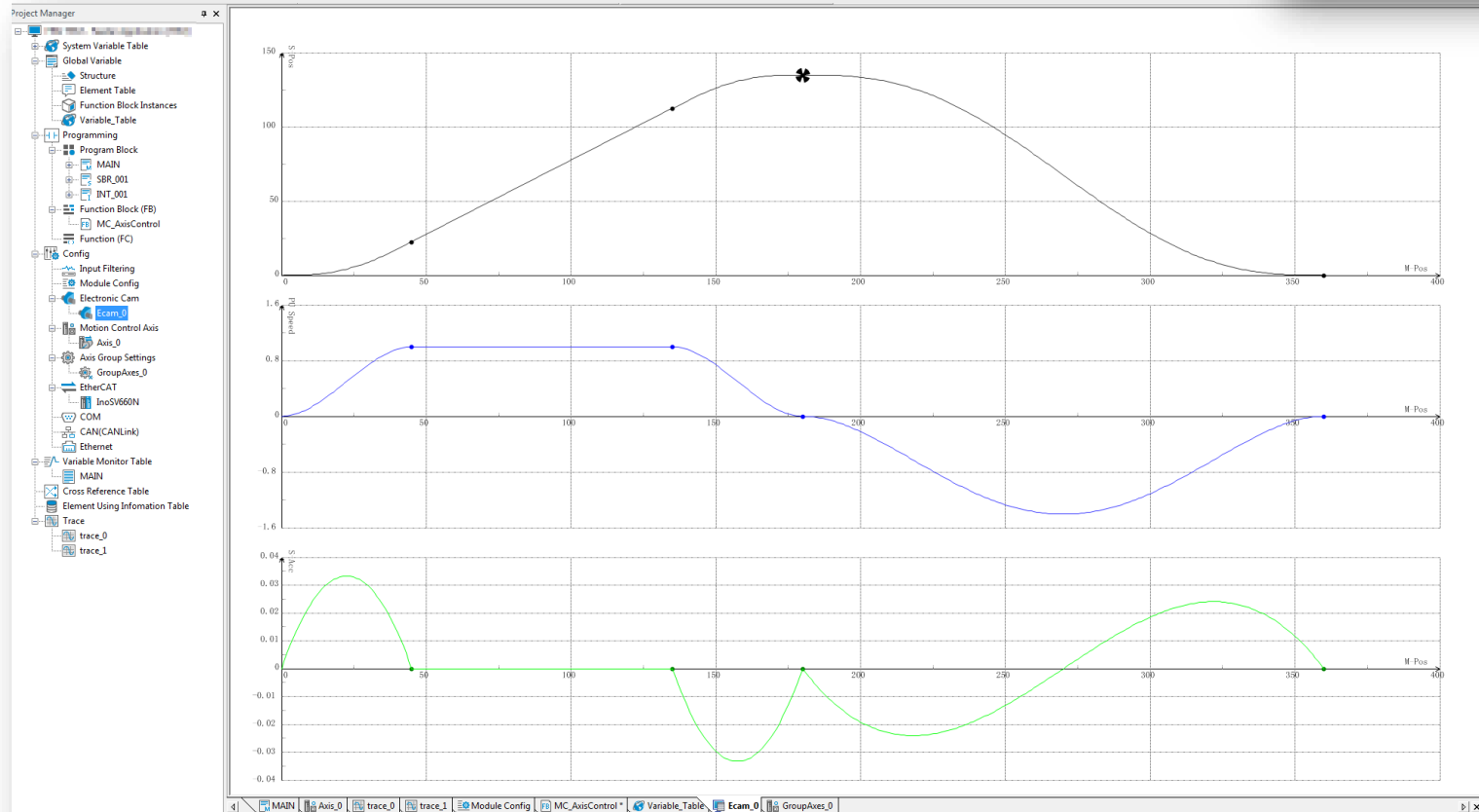
Axis group number

X-axis (*)

Y-axis (*)

Z-axis

Auxiliary axis



Add
Del

	M-Pos	S-Pos	Fm Speed	Type
1			0	Pa
2	45	22.5	1	Spline
3	135	112.5	1	Line
4	180	135	0	Spline
5	350	0	0	Spline

H5U Features

❑ Simulation mode

PLC programs

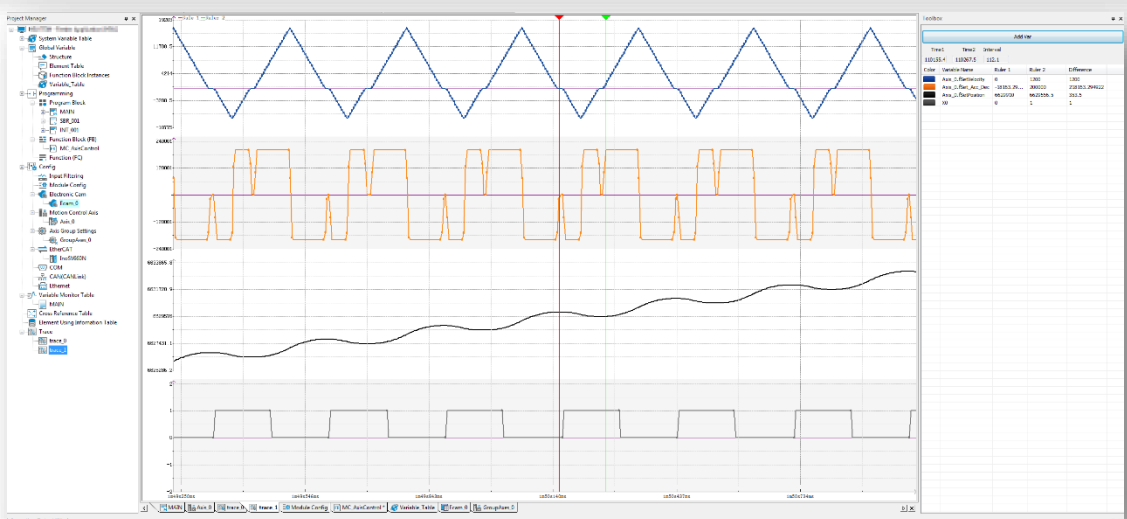
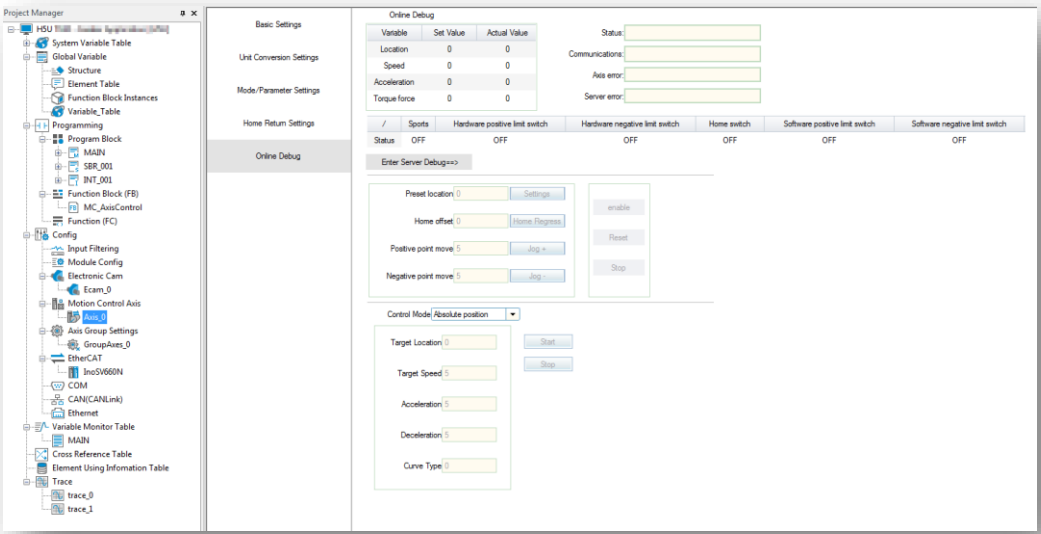
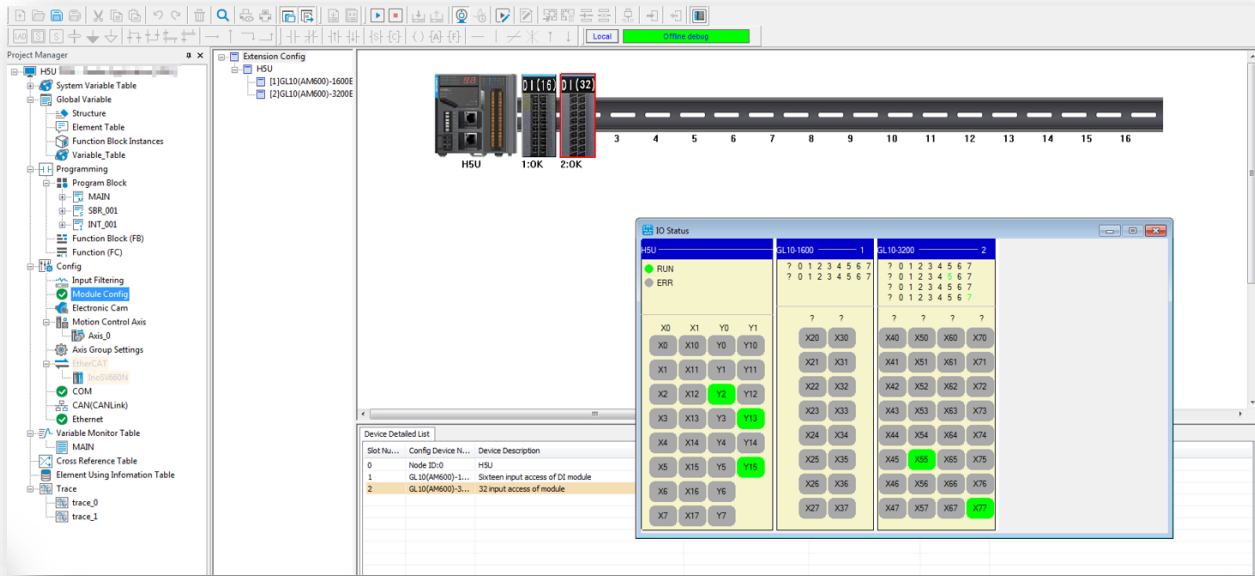
Axis control

Local I/O

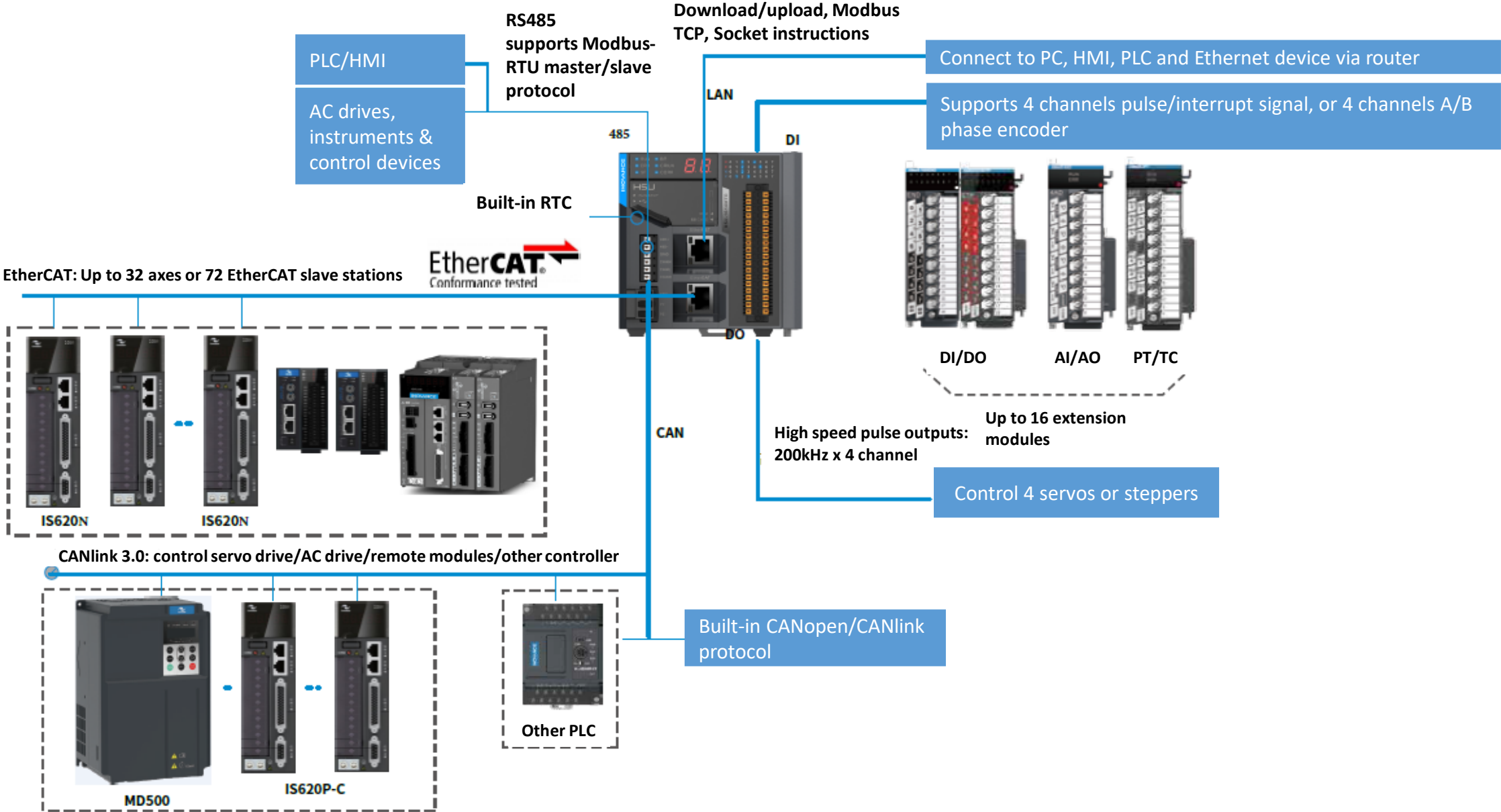
Serial and Ethernet comms

❑ High-resolution trace tool

❑ Axis interface for easy test



H5U Control Topology



H5U Extension Modules

GL modules

POWER SUPPLY UNIT

GL10-PS2-INT

INPUT IO MODULES

GL10-1600END-INT

GL10-3200END-INT

OUTPUT IO MODULES

GL10-0016ER-INT

GL10-0016ETN-INT

GL10-0016ETP-INT

GL10-0032ETN-INT

ANALOG MODULES

GL10-4DA-INT

GL10-4AD-INT

THERMISTOR MODULES

GL10-4PT-INT

GL10-4TC-INT

GL10-8TC-INT

ETHERCAT COUPLER

GL10-RTU-ECTA-INT

CANOPEN COUPLER

GL10-RTU-COP-INT

GR modules

REMOTE MODULES(ETHERCAT SLAVE)

GR10-2HCE-INT

GR10-0808ETNE-INT

GR10-1616ETNE-INT

GR10-2PHE-INT

GR10-4ADE-INT

GR10-4DAE-INT

GR10-4PME-INT

GR10-8TCE-INT

H5U CPU



Power Supply Module
GL10-PS2



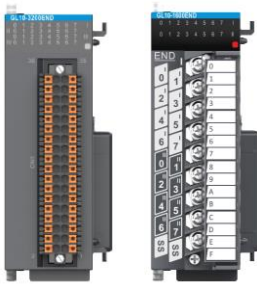
EtherCAT Coupler
GL10-RTU-ECTA



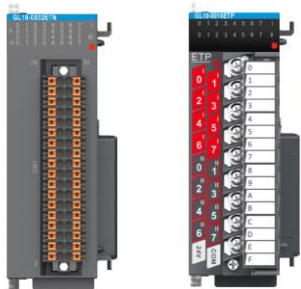
CANopen Coupler
GL10-RTU-COP



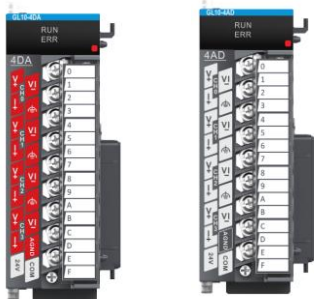
GL modules
Local Extension Modules



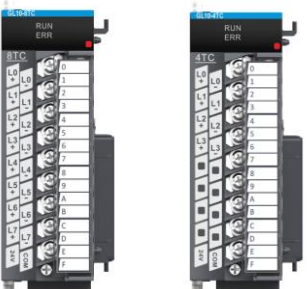
IO Modules



Analog Modules



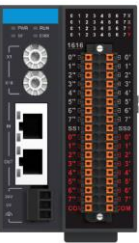
Temperature Detection Modules



GR Modules
EtherCAT Remote Modules



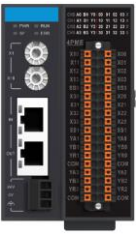
Remote IO Modules



Remote Analog Modules



Remote Temperature Detection
Modules



H5U vs H3U

Hardware Comparison

Item	H5U	H3U	H3U-PM
Storage	200K program storage, 2MByte data storage	64K program storage, 48k words data storage	64K program storage, 48k words data storage
Axes	EtherCAT: 32 axes Local Pulse: 4 axes *EtherCAT + Pulse up to 32 axes	local pulse: 5 axes	3 axes interpolation
Serial port	1 x RS485	1 x RS485 + 1 x RS422	1 x RS485 + 1 x RS422
CAN port	CANlink, CANopen	CANlink, CANopen	CANlink, CANopen
Fast input	4 x 200K	8 x 200K	3 channels 200k
Fast output	8 x 200K	5 x 200K	3 channels 500k
Extension modules	16	8	8
Program Language	LD, SFC, support FB/FC (LD)	LD, SFC	LD, SFC
Ethernet	Modbus TCP, Socket, program upload/download	Modbus TCP, program upload/download	Modbus TCP, program upload/download
EtherCAT	Support EtherCAT, up to 72 EtherCAT stations (including Servos)	--	--
USB	Program upload/download	Program upload/download	Program upload/download
SD card	Program upload/download and firmware upgrade (only SD card)	--	--
Dimensions	Compact and small size 83 x 90 x 95 (mm)	230 x 90 x 95 (mm) (3232MR/T,3624MRT) 170 x 90 x 90 (1616MR/T)	230 x 90 x 95 (mm)

H5U vs H3U

Axes Control Comparison

Item	H5U	H3U	H3U-PM
Axes pulse control	Yes	Yes	Yes
Axes EtherCAT control	Yes	No	No
Interpolation	Yes (2 axes circular/3 axes linear)	Yes (2 axes linear/circular interpolation)	Yes (2 axes circular/3 axes linear/spiral curve)
Electrical CAM	Yes	No	Yes
FB/FC	Yes	No	No
Motion Control (conform PLCopen specs)	Yes	No	No

Current Status

- **Product stable.** Interpolation and CAM function are available, software support trace functionality and offline simulation functionality.
- **CE.** H5U have CE certificate.
- **English documentation.** User guide is ready, but for programming manuals/application manual need to wait the mature Chinese documents, we need keep consistency with Chinese version documents.
- **PC software stable.** Currently official English version(4.4.1.0).

INOVANCE

Forward Always Progressing